

December 7, 2018

Via: puc.filingcenter@state.or.us FedEx

Public Utility Commission of Oregon Attn: Filing Center 201 High Street, Ste. 100 P.O. Box 1088 Salem, OR 97308-1088

RE: UM 1931 Testimony of Robert Macfarlane, Bruce True, and Ryin Khandoker

Filing Center,

Enclosed for filing in UM 1931 are Direct Testimony and Exhibits of Portland General Electric Company (PGE) consisting of:

- PGE 100 Direct Testimony of Robert Macfarlane with PGE Exhibits 101 to 108
- PGE 200 Direct Testimony of Bruce True with PGE Exhibits 201 to 215
- PGE 300 Direct Testimony of Ryin Khandoker with PGE Exhibit 301

PGE will provide to the Filing Center via FedEx:

- Five printed copies of PGE / 100 through PGE / 300 including exhibits and,
- Three CDs containing confidential workpapers

If you have any questions, please call me at (503) 464-7805. All formal correspondence and requests are to be directed to pge.opuc.filings@pgn.com.

Sincerely,

Karla Wenzel

Manager, Pricing & Tariffs

KW:np

#### UM 1931 / PGE / 100 Macfarlane

# BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

#### **UM 1931**

## PORTLAND GENERAL ELECTRIC COMPANY v.

ALFALFA SOLAR I, LLC; DAYTON SOLAR I, LLC; FORT ROCK SOLAR I, LLC; FORT ROCK SOLAR II, LLC; FORT ROCK SOLAR IV, LLC; HARNEY SOLAR I, LLC; RILEY SOLAR I, LLC; STARVATION SOLAR I, LLC; TYGH VALLEY SOLAR I, LLC; AND WASCO SOLAR I, LLC

PORTLAND GENERAL ELECTRIC COMPANY

Direct Testimony and Exhibits of

Robert Macfarlane

December 7, 2018

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#### I. INTRODUCTION

Ο.	Please state	vour name	and 1	position.
<b>V</b> •	I icase state	your manic	anu	DOSILIOII

- 2 A. My name is Robert Macfarlane. I am a Regulatory Consultant in Pricing and
- Tariffs at Portland General Electric Company ("PGE"). My qualifications are
- 4 stated at the end of this testimony.

#### 5 Q. What is the purpose of your testimony?

- 6 A. The purpose of my testimony is to support PGE's January 25, 2018, complaint
- against the following ten qualifying facilities ("QFs"): Alfalfa Solar I, LLC;
- Dayton Solar I, LLC; Fort Rock Solar I, LLC; Fort Rock Solar II, LLC; Fort Rock
- 9 Solar IV, LLC; Harney Solar I, LLC; Riley Solar I, LLC; Starvation Solar I, LLC;
- Tygh Valley Solar I, LLC; and Wasco Solar I, LLC (collectively, the "NewSun
- 11 Parties").

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### 12 Q. What relief does PGE seek under the Complaint?

- 13 A. PGE has asked the Commission to interpret ten standard power purchase
- agreements ("PPAs") entered into by PGE and the ten NewSun Parties during the
- first half of 2016 (the "NewSun PPAs"). PGE seeks a determination that it is
- obligated to pay fixed prices—the Renewable Fixed Price Option—for any net
- output delivered during the first 15 years of the contract term (i.e., the first 15
- years following contract execution) and that PGE is obligated to pay market
- prices—the Mid-C Index Price—for any net output delivered during the
- 20 remainder of the contract term.

#### Q. What is the scope of your testimony?

A.

A.

My testimony shows that the language in the NewSun PPAs clearly provides that the 15-year period begins at execution of the contract and not at commercial operation. I also describe the policies adopted in Order No. 05-584, which directed PGE to offer standard contracts with a maximum term of 20 years, and with fixed prices available for the first 15 years of the contract term, followed by market prices for the last five years of a 20-year term. My testimony also traces the history of PGE's standard contract forms filed in compliance with Order No. 05-584, including the contract forms upon which the NewSun PPAs are based.

In considering the history of PGE's standard contract forms since Order No. 05-584, the Commission will find that PGE's initial contract form filed in compliance with Order No. 05-584, on July 12, 2005, limited the availability of fixed prices to the first 15 years following contract execution. PGE's subsequent contract forms, including the forms on which the NewSun PPAs are based, continued to limit the availability of fixed prices to the first 15 years following contract execution. This remained true until July 20, 2017, when PGE filed a revised set of contract forms in compliance with Order No. 17-256, the order in which the Commission first ordered PGE to offer fixed prices for 15 years measured from commercial operation rather than from contract execution.

#### Q. What is the position of the NewSun Parties?

The NewSun Parties argue that PGE must pay fixed prices for 15 years measured from the date the QF achieves commercial operation, a date that can be up to three or four years after contract execution. Under the NewSun Parties' interpretation,

PGE is obligated to pay the Renewable Fixed Price Option<sup>1</sup> for any net output delivered for up to the first 18 or 19 years of the maximum 20-year contract (assuming the QF requires three or four years to achieve commercial operation). This position is inconsistent with: (1) Order No. 05-584 (the Commission order mandating that PGE offer standard contracts with a 15-year fixed-price period); (2) the express language of PGE's Commission-approved standard contract forms and Schedule 201 attached to each contract; and (3) PGE's written notice to the NewSun Parties before they entered into the NewSun PPAs stating that under the contract forms PGE's obligation to pay fixed prices is limited to the first 15 years following contract execution. Please refer to the direct testimony of Bruce True for a discussion of this written notice.

### Q. How is your testimony organized?

A. My testimony is organized into four sections. First, this introductory section describes the scope and content of my testimony. Second, I discuss the language of the NewSun PPA and how that language limits the availability of fixed prices to the first 15 years after the execution of the contract. Third, I discuss the regulatory history that lead to the standard contract forms on which the NewSun PPAs are based. Fourth, I provide my conclusions regarding when the 15-year fixed price period begins to run under the NewSun PPAs.

#### Q. Please summarize your exhibits.

A. I have submitted eight exhibits (PGE Exhibits 101 through 108). The exhibits are copies of compliance filings made by PGE, PacifiCorp, and Idaho Power in

<sup>&</sup>lt;sup>1</sup> Terms with initial capitalization that are not otherwise defined in this testimony have the meaning assigned in the standard contract forms or the version of Schedule 201 under discussion.

response to the Commission's orders on standard QF contracts. The exhibits are true and accurate copies of documents previously filed with the Commission.

Each exhibit is described when I refer to it in my testimony. There is also a list of the exhibits at the end of this testimony.

#### II. THE NEWSUN PPAS

- 5 Q. Please summarize when the 15-year fixed price period begins under the 6 NewSun PPAs.
- 7 A. The NewSun PPAs require PGE to pay fixed prices for any net output delivered to
  8 PGE during the first 15 years of the contract term (which begins at contract
  9 execution). The NewSun PPAs require that PGE pay a market price for any net
  10 output delivered after the first 15 years of the contract term until the end of the
  11 maximum 20-year term of each NewSun PPA.
- 12 Q. Have you provided a copy of a NewSun PPA for reference?
- 13 A. Yes, PGE Exhibit 101 is a copy of the PPA between PGE and Alfalfa Solar I
  14 LLC. This PPA is representative of all ten NewSun PPAs. Copies of all ten
  15 NewSun PPAs have been filed in this docket as attachments to PGE's complaint.
- Q. What price is PGE required to pay for power delivered by any of the NewSun projects?
- 18 A. Under Section 4.2 of the NewSun PPA, PGE must pay the "Contract Price" for all
  19 Net Output delivered by the Seller during the term of the contract.<sup>2</sup> Section 1.6
  20 provides that the Contract Price is the applicable price specified in the
  21 "Schedule."<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> Exhibit 101 at 10 (2010 Alfalfa Solar I LLC PPA ("Alfalfa PPA") at Section 4.2).

<sup>&</sup>lt;sup>3</sup> *Id.* at 2 (Alfalfa PPA at Section 1.6).

#### 1 Q. What is the Schedule?

- A. The Schedule is PGE's Schedule 201 in effect when the PPA was executed. A 2
- copy of the Schedule is attached to each NewSun PPA as Exhibit D.<sup>4</sup> 3

#### Q. Is Schedule 201 incorporated into the NewSun PPAs? 4

- 5 A. Yes, pursuant to Section 1.33, all of the terms of Schedule 201 are incorporated
- 6 into the NewSun PPA. This means that the terms and conditions in the Schedule
- are terms and conditions of the NewSun PPAs. 7

#### What is the Contract Price specified in the Schedule? 8 Q.

- 9 A. The Schedule specifies two price options—the Standard Fixed Price Option and
- the Renewable Fixed Price Option.<sup>5</sup> If a QF is a solar project or other renewable 10
- resource, it may select either of these two prices. The NewSun Parties selected the 11
- Renewable Fixed Price Option, which is why the parties executed the *renewable* 12
- version of PGE's off-system variable PPA. 13

#### What prices apply under the Renewable Fixed Price Option? 14 Q.

- The applicable prices are established at Sheet 201-12 of Schedule 201, which 15 A.
- provides: 16

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The Renewable Fixed Price Option ... is available for a maximum term of 15 years. Prices will be as established at the time the

Standard PPA is executed and will be equal to the Renewable 19 20

Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b,

depending on the type of QF, effective at execution.<sup>6</sup> 21

<sup>&</sup>lt;sup>4</sup> *Id.* at 24-36 (Schedule 201).

<sup>&</sup>lt;sup>5</sup> *Id.* at 26-27 and 30 (Schedule 201, Sheet Nos. 201-4, 201-5, and 201-12).

<sup>&</sup>lt;sup>6</sup> *Id.* at 30 (Schedule 201, Sheet No. 201-12).

1		Sheet 201-12 further states:
2 3 4 5		Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15. <sup>7</sup>
6		In other words, under Schedule 201, PGE is obligated to pay fixed prices
7		for all net output delivered for the first 15 years of the contract term, starting at
8		execution of the PPA, and thereafter to pay market prices for all Net Output
9		delivered for the remainder of the contract term.
10	Q:	Is there any other text indicating that the 15 years of fixed prices runs from
11		execution and not the later commercial operation date?
12	A:	Yes. For any Net Output delivered after the Effective Date but before the
13		Commercial Operation Date, PGE is obligated to pay off-peak fixed prices. This
14		is reflected in Schedule 201, Sheet 201-4, which states:
15 16 17 18 19 20 21		The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b [the tables with the Standard Fixed Cost Option for base load, wind, and solar QFs respectively] or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b [the tables with the Renewable Fixed Cost Option for base load, wind, and solar QFs respectively] for all Net Output delivered prior to the Commercial Operation Date. <sup>8</sup>
22	Q.	What is the term of the NewSun PPAs?
23	A.	The term of the NewSun PPAs can be up to 20 years depending on when the
24		Seller achieves commercial operation. Section 1.38 states that the "Term" of the
25		PPA is "the period beginning on the Effective Date and ending on the
26		Termination Date." Under Section 2.1, the Effective Date is the date the PPA is

<sup>&</sup>lt;sup>7</sup> *Id*.

<sup>8</sup> *Id*. at 26 (Schedule 201, Sheet No. 201-4).

<sup>9</sup> *Id*. at 6 (Alfalfa PPA at Section 1.38).

executed by both parties.<sup>10</sup> The Seller may select the term of the PPA up to a maximum term of 20 years.<sup>11</sup> The Termination Date is memorialized in Section 2.3 of each PPA. The Termination Date for each of the NewSun PPAs is "the last day of the sixteenth (16th) Contract Year ...."<sup>12</sup>

#### Q. When is the last day of the 16th Contract Year?

A.

The precise Termination Date of each NewSun PPA depends on when each Seller achieves commercial operation. Under Section 1.7, a "Contract Year" is each 12-month period beginning on the Commercial Operation Date or its anniversary until the end of the contract term. <sup>13</sup> The Commercial Operation Date occurs when the QF satisfies a series of milestones established in Section 1.5. The deadline to achieve these milestones is stated in Section 2.2.2. Under the NewSun PPAs, the deadline for the Seller to achieve the Commercial Operation Date is three years after the Effective Date (the date the contract is executed). <sup>14</sup> If the Seller misses this deadline, it has one year to cure or PGE may terminate the PPA pursuant to Section 8.2. <sup>15</sup> If a NewSun Party achieves commercial operation three years after the Effective Date, then the overall contract term of the NewSun PPA is 19 years (three years to achieve commercial operation and a termination date 16 years later). If a NewSun Party uses its one-year cure period and achieves commercial operation four years after the Effective Date, then the term of the PPA is 20 years

<sup>&</sup>lt;sup>10</sup> *Id.* at 7 (Alfalfa PPA at Section 2.1).

<sup>&</sup>lt;sup>11</sup> See id. at 25 (Schedule 201, Sheet 201-1 states: "The PPA will have a term up to 20 years as selected by the QF.").

<sup>&</sup>lt;sup>12</sup> *Id.* at 7 (Alfalfa PPA at Section 2.3).

<sup>&</sup>lt;sup>13</sup> *Id.* at 2 (Alfalfa PPA at Section 1.7).

<sup>&</sup>lt;sup>14</sup> *Id.* at 7 (Section 2.2.2 of each NewSun PPA states: "By thirty-six (36) month anniversary of the Effective Date Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.").

<sup>&</sup>lt;sup>15</sup> *Id.* at 12 (Alfalfa PPA at Section 8.2).

1 (four years to achieve commercial operation and a termination date 16 years 2 later).

#### Q. Please summarize what price applies under the NewSun PPAs.

The NewSun PPAs provide that the Renewable Fixed Price Option is available as a Contract Price to be paid for Net Output delivered to PGE "for a maximum term of 15 years" and that Sellers with PPAs exceeding 15 years (such as the NewSun Parties) receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15. <sup>16</sup> As a result, the price that PGE must pay for net output delivered during the term of each NewSun PPA is the Renewable Fixed Price Option during the first 15 years following contract execution and the Mid-C Index Price for the remaining four or five years of the contract term. For net output delivered prior to the commercial operation date, PGE must pay the off-peak fixed price from Schedule 201.

#### III. REGULATORY BACKGROUND

#### A. SUMMARY OF THE REGULATORY BACKGROUND

Q. Please summarize the information you intend to present in this section of
 your testimony.

This section reviews the regulatory history underlying the NewSun PPAs. First, I will review Order No. 05-584 as it relates to the 15-year fixed-price question and discuss why the Commission imposed the 15-year fixed-price requirement.

Second, I will review the first generation of compliance filings made by each of the three utilities and explain the different triggers for the 15-year fixed-price period that were adopted by each utility. In August 2005, the Commission

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<sup>&</sup>lt;sup>16</sup> *Id.* at 26-27 (Schedule 201, Sheets 201-4 and 201-5.)

approved each utility's first generation of contract forms, including the utilities' three different approaches to the 15-year fixed-price period.

Third, I will review the compliance investigation conducted by the Commission in 2006 and note that no challenge was made to the three utilities' differing approaches to the 15-year fixed-price period. In response to the compliance investigation, each utility filed its second generation of contract forms in late 2006. These forms continued to take three different approaches to the 15-year fixed-price period, and in early 2007, the Commission approved all three utilities' second generation of contract forms.

In the fourth part of this section, I discuss that between 2007 (when the second generation of PGE's contract forms was approved) and 2015 (when the generation of forms used for the NewSun PPAs were approved), PGE was required to change its contract forms on several occasions to address Commission orders on issues unrelated to the 15-year fixed-price issue. However, some of these changes required PGE to change pricing language from the first and second generation of contract forms. My testimony will explain any pricing language changes and note that these changes did not alter, and were not intended to alter, the fundamental application of the 15-year fixed price period under the PPAs, which limited the availability of fixed prices to the first 15 years measured from contract execution.

Finally, I will discuss Order No. 17-256, which was issued after the NewSun PPAs became effective and which, *for the first time*, required PGE to

change its approach and to offer fixed prices for 15 years measured from commercial operation rather than from contract execution.

#### B. EXPLANATION OF ORDER NO. 05-584

Q. Please describe how the Commission developed the rules for utility purchases
 from QFs.

On January 20, 2004, the Commission opened Docket No. UM 1129 as an investigation into electric utility purchases from QFs. The investigation addressed six broad issue areas, including contract length and price structure.<sup>17</sup>

The Commission solicited the participation of interested stakeholders including the investor-owned utilities, the Oregon Department of Energy, QF developers, and customer representatives such as the Industrial Customers of Northwest Utilities (ICNU). The Commission conducted an extensive process involving pre-filed testimony, a hearing, and post hearing briefs. 19

On May 13, 2005, the Commission issued Order No. 05-584. Among the many issues resolved was the term of standard contracts. In Order No. 05-584, the Commission "[e]stablish[ed] a maximum standard contract term of twenty years ... [a]llowing a QF to select fixed pricing for the first fifteen years of the standard contract, but requiring the selection of a market pricing option for the last five years."<sup>20</sup>

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<sup>&</sup>lt;sup>17</sup> In the Matter of Public Utility Commission of Oregon Staff's Investigation Relating to Electric Utility Purchases from Qualifying Facilities, Docket No. UM 1129, Order No. 05-584 at 5, fn. 3 (May 13, 2005).

<sup>&</sup>lt;sup>18</sup> *Id.* at 5-6.

<sup>&</sup>lt;sup>19</sup> *Id.* at 4-6.

<sup>&</sup>lt;sup>20</sup> *Id.* at 1-2.

1	Q.	Please explain why the Commission established a maximum standard
2		contract term of 20 years but limited the availability of fixed prices to the
3		first 15 years of the standard contract with market prices applying during
4		the last five years of the maximum 20-year term.

The Commission sought to "balance" two competing goals: A.

> We conclude that establishing an appropriate maximum term for standard contracts requires us to balance two goals. A primary goal in this proceeding is to accurately price QF power. We also seek ... to ensure that QF projects ... have viable opportunities to enter into a standard contract ... [and to achieve this] goal, it is necessary to ensure that terms of the standard contract facilitate appropriate financing for a OF project.<sup>21</sup>

The Commission selected a maximum standard contract term of 20 years to address its goal of establishing "a maximum standard contract term that enables eligible OFs to obtain adequate financing."<sup>22</sup>

The 20-year maximum term was adopted to protect the ability of a OF to obtain financing. The 15-year limit on fixed prices was adopted by the Commission to protect the accurate pricing of QF power by limiting, to 15 years, the period of time over which forecasted avoided costs are allowed to diverge from actual avoided costs once the forecasted costs become fixed standard contract prices.

The Commission was clear that a "primary goal in this proceeding [UM 1129] is to accurately price QF power."23 The Commission was concerned that the forecasted fixed avoided costs would diverge substantially from actual avoided costs for longer contracts and that fixing costs more than 15 years into the

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<sup>&</sup>lt;sup>21</sup> *Id.* at 19.

<sup>&</sup>lt;sup>22</sup> Id.

<sup>&</sup>lt;sup>23</sup> *Id*.

future would create an unnecessary price risk for ratepayers.<sup>24</sup> Having decided that the maximum term of a standard contract is 20 years and that fixed prices will be limited to the first 15 years of the contract term, the Commission then concluded that, "in the event a QF opts for a standard contract with a 20-year term, the QF must take [market-based prices] ... for the final five years of the contract."<sup>25</sup>

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As recently as 2016, the Commission confirmed that this was its rationale for adopting the 15-year fixed-price period. In Order No. 16-174, the Commission noted:

In Order No. 05-584, we established a 20-year maximum term for a standard contract to facilitate QF financing, fixing prices for only the first 15 years to minimize forecasting error. ... Order No. 05-584 dictates the maximum term of any standard contract and that market prices replace avoided cost prices during the last five years of a 20-year standard contract.<sup>26</sup>

## C. PGE COMPLIED WITH ORDER NO. 05-584 WITH A FORM PPA THAT STARTED THE 15 YEARS OF FIXED PRICES AT CONTRACT EXECUTION

Q. Did all the utilities produce standard PPA forms that provide that the 15year fixed price period began at execution?

A. PGE did so, but PacifiCorp and Idaho Power prepared standard PPA forms that provided for two different trigger dates for the 15-year period, as discussed below in this section.

<sup>&</sup>lt;sup>24</sup> Order No. 05-584 at 20 ("[W]e acknowledge that 20 years is a significant amount of time over which to forecast avoided costs. Indeed, divergence between forecasted and actual avoided costs must be expected over a period of 20 years. Given our desire to calculate avoided costs as accurately as possible, and the testimony of several parties that avoided costs should not be fixed beyond 15 years, we are persuaded that standard contract prices should be fixed for only the first 15 years of the 20-year term.").

<sup>&</sup>lt;sup>26</sup> In the Matter of Public Utility Commission of Oregon Staff Investigation into Qualifying Facility Contracting and Pricing, Docket No. UM 1610, Order No. 16-174 at 5 (May 13, 2016).

1	Q.	How did the Commission implement its decision to set the maximum term of
2		a standard contract at 20 years and to require fixed prices for the first 15
3		years of the contract term followed by market prices for the last five years of
4		the term?
5	A.	The Commission ordered each utility to make a compliance filing and to submit a
6		revised rate schedule and standard contract form intended to implement all of the
7		requirements of Order No. 05-584. 27 The Commission noted that it was not
8		necessary for each utility to use exactly the same standard contract terms provided
9		each utility complied with the requirements of Order No. 05-584. <sup>28</sup>
10	Q.	When did the utilities submit compliance filings in response to Order No. 05-
11		584?
12	A.	Each of the three utilities made a compliance filing in response to Order No. 05-
13		584 on July 12, 2005.
14		PGE's compliance filing was submitted as PGE Advice No. 05-10. The
15		filing included a revised Schedule 201 (the "2005 Schedule 201") and a standard
16		PPA (the "2005 Contract Form"). A copy of PGE Advice No. 05-10 is attached as
17		PGE Exhibit 102.
18		PacifiCorp's compliance filing was submitted as PAC Advice No. 05-006
19		The filing included a revised Schedule 37 and a standard PPA. A copy of PAC

Advice No. 05-006 is attached as PGE Exhibit 103.

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<sup>&</sup>lt;sup>27</sup> Order No. 05-584 at 59-60. <sup>28</sup> *Id.* at 41.

1		Idaho Power's compliance filing was submitted as IPC Advice No. 05-06.
2		The filing included a revised Schedule 85 and a standard PPA. A copy of IPC
3		Advice No. 05-06 is attached as PGE Exhibit 104.
4	Q.	How did PGE's 2005 compliance filing address contract term and the 15-
5		year fixed-price period?
6	A.	PGE's 2005 compliance filing provided that the maximum contract term was 20
7		years measured from contract execution and that the fixed price option was only
8		available for the first 15 years of the contract term, after which PGE would pay a
9		market price option for the remaining up to five years of the maximum 20-year
10		contract term.
11		Specifically, Section 1.24 of the 2005 Contract Form defined "Term" as
12		"the period beginning on the Effective Date and ending on the Termination
13		Date." <sup>29</sup> The 2005 Contract Form defined "Effective Date" as the date of
14		"execution by both Parties." And it defined "Termination Date" as the earlier of
15		a date to be chosen by the QF Seller or 20 years from the Effective Date. <sup>31</sup>
16		PGE's 2005 Schedule 201 tariff was attached to the 2005 Contract Form
17		as an exhibit. 32 PGE's 2005 Schedule 201 expressly limited the term of the
18		standard contract to a maximum of 20 years. <sup>33</sup> PGE's 2005 Schedule 201 also

expressly limited the availability of the Fixed Price Option to the first 15 years of

the contract term, stating:

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 $<sup>^{29}</sup>$  PGE Exhibit 102 at 23 (PGE's 2005 Contract Form at Section 1.24).  $^{30}$  *Id.* at 21 and 24 (PGE's 2005 Contract Form at Section 1.7 and Section 2.1).

<sup>&</sup>lt;sup>31</sup> *Id.* at 24 (PGE's 2005 Contract Form at Section 1.7 and Section 2.1). <sup>32</sup> *Id.* at 23 and 39 (PGE's 2005 Contract Form at Section 1.23 and Exhibit E). <sup>33</sup> *Id.* at 5 (PGE's 2005 Schedule 201 at Sheet 201-2).

The Fixed Price Option ... is available for a maximum term of 15 years. Sellers with contracts exceeding 15 years will make a one-time election at execution to select a market-based option for all years up to five in excess of the initial 15.<sup>34</sup>

Those terms alone are sufficient to unambiguously limit the term of the 2005 Contract Form to 20 years measured from contract execution and to limit the availability of fixed prices to the first 15 years of that contract term. Additionally, PGE's 2005 Contract Form included text regarding the prices to be paid by PGE that made it even more clear that PGE was obligated to pay the Fixed Price Option only during the first 15 years measured from contract execution. Specifically, Section 5 of PGE's 2005 Contract Form stated:

#### **SECTION 5: CONTRACT PRICE**

PGE shall pay Seller for the price options 5.1, 5.2, 5.3 or 5.4, as selected below, pursuant to the Tariff. Seller shall indicate which price option it chooses by marking its choice below with an X. If Seller chooses the option in Section 5.1, it must mark below a single second option from Section 5.2, 5.3, or 5.4 for all Contract Years in excess of 15 until the remainder of the Term. Except as provided herein, Sellers selection is for the Term and shall not be changed during the Term.

- 5.1 \_\_\_\_\_ Fixed Price.
- 5.2 \_\_\_\_\_ Deadband Index Gas Price.
- 5.3 \_\_\_\_\_ Index Gas Price.

24 5.4 Mid-C Index Rate Price. 35

Section 1.6 of PGE's 2005 Contract Form defined "Contract Year" to mean each 12-month calendar year falling at least partially in the Term of the Agreement.<sup>36</sup> Section 1.24 and Section 2.1 make it clear the Term begins at contract

<sup>&</sup>lt;sup>34</sup> *Id.* at 7 (PGE's 2005 Schedule 201 at Sheet 201-4).

<sup>&</sup>lt;sup>35</sup> *Id.* at 26 (PGE's 2005 Contract Form at Section 5).

<sup>&</sup>lt;sup>36</sup> *Id.* at 21 (PGE's 2005 Contract Form at Section 1.6).

- execution.<sup>37</sup> Section 5 and Sheet No. 201-4 each make clear that the Fixed Price

  Option is available only for the first 15 years following contract execution.<sup>38</sup>
- Q. Did each of the investor-owned utilities propose a different approach to when the 15-year fixed-price period would begin to run?
- Yes, each utility proposed a different approach. PGE proposed that it would pay fixed prices for net output delivered during the first 15 years after contract execution. PacifiCorp proposed that it would pay fixed prices for the first 15 years after the date scheduled for initial delivery of test energy. Idaho Power proposed that it would pay fixed prices for the first 15 years after the date the QF achieved commercial operation. Commercial operation.
- Q. Did Order No. 05-584 allow for each utility to propose different language and a different approach to satisfying the requirements of Order No. 05-584?
- 13 A. Yes, in Order No. 05-584 the Commission "decline[d] to adopt a model standard
  14 contract form" and held that "each utility should draft its own standard contract
  15 rates, terms and condition." The Commission further held: "We expect each
  16 standard contract form to contain terms and conditions that are consistent with the
  17 resolution of issues in this order or past orders, as appropriate ... [i]t is not

<sup>&</sup>lt;sup>37</sup> *Id.* at 23 and 24 (PGE's 2005 Contract Form at Section 1.24 and Section 2.1).

<sup>&</sup>lt;sup>38</sup> *Id.* at 26 and 7 (PGE's 2005 Contract Form at Section 5 and Sheet 201-4).

<sup>&</sup>lt;sup>39</sup> PGE Exhibit 103 at 16 and 11 (PacifiCorp's 2005 Contract Form at Section 5.2 ("In the event Seller elects the Fixed Price payment method, PacifiCorp shall pay Seller the applicable On-Peak and Off-Peak rates specified in **Schedule 37** during the first fifteen (15) years after the Scheduled Initial Delivery Date. Thereafter, PacifiCorp shall pat Seller market-based rates …") and Section 1.36 (defining "Scheduled Initial Delivery Date" as the date selected by the Seller in Recital B of the PPA for delivering start-up test energy)).

<sup>&</sup>lt;sup>40</sup> PGE Exhibit 104 at 18, 13, and 16 (Idaho Power's 2005 Contract Form at Section 7.1 ("The Seller may not select Option 1, Fixed Price Method, for any Contract Years past the first 15 Contract Years"), Section 1.2 (defining "Contract Year" as each 365 day period beginning with the Operation Date), and Sections 1.13 and 5.2 (defining "Operation Date" as the date the QF achieves a series of commercial operation milestones).

<sup>&</sup>lt;sup>41</sup> Order No. 05-584 at 41.

1	necessary that particular terms be identically worded across all standard
2	contract forms [submitted by the three utilities], so long as the meaning of each
3	term is consistent with the present or past decisions."42

- Q. Did the Commission approve the three utilities' standard contract forms and rate schedules with their different approaches to compliance with the 15-year fixed price period requirement of Order No. 05-584?
- 7 A. Yes, in Order No. 05-899 issued on August 9, 2005, the Commission approved all three utilities' compliance filings. 43

# D. THE COMMISSION'S INVESTIGATION INTO COMPLIANCE WITH ORDER 05-584 NEVER CHALLENGED PGE'S FORMS THAT STARTED THE 15-YEARS AT CONTRACT EXECUTION

# 9 Q. Please explain the Commission's compliance investigation and 10 Order No. 06-538.

As discussed above, in August 2005 the Commission approved each utility's first generation of contract forms filed in response to Order No. 05-584. The Commission also opened a compliance investigation to review the filed documents for consistency with the requirements of Order No. 05-584. The compliance investigation took 14 months to complete. In that time, the Commission identified the compliance issues under investigation, received extensive written testimony from the parties to UM 1129, conducted a hearing, and received briefs from the parties.<sup>44</sup>

The compliance investigation culminated in a compliance order—Order No. 06-538—issued in UM 1129 on September 20, 2006. The compliance order

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<sup>42</sup> Id

<sup>&</sup>lt;sup>43</sup> Docket No. 1129, Order. No. 05-899 at 3 (Aug. 9, 2005).

<sup>&</sup>lt;sup>44</sup> Docket No. 1129, Order No. 06-538 at 1-7 (Sept. 20, 2006).

considered and resolved over 80 specific compliance issues.<sup>45</sup> However, during the 14-month compliance investigation, the utilities were not challenged on their respective approaches to the maximum 20-year term or to the 15-year limit on fixed prices.

## Q. Did the utilities file revised contract forms and rate schedules in response to Order No. 06-538?

Yes. In late 2006, each utility filed revised tariffs and contract forms to bring those documents into full compliance with Order No. 05-584 and Order No. 06-538. The revised contract forms and rate schedules contained the same terms and conditions regarding contract term and the trigger event for the 15-year, fixed-price period, as the terms submitted in July 2005—all three utilities continued to rely on different trigger events. As recently as 2017, in Order No. 17-256, the Commission acknowledged that it approved "standard QF contracts [from different utilities] that have used, as triggering event, both the date of [contract] execution and the date of power delivery."<sup>46</sup>

A copy of PGE's 2006 compliance filing is attached as PGE Exhibit 105. PGE's 2006 compliance filing was its second generation of contract forms (the "2006 Contract Form") and rate schedule (the "2006 Schedule 201") filed after Order No. 05-584. This second generation of PGE standard contract forms unambiguously limited the availability of fixed prices to the first 15 years following contract execution using exactly the same language as used in PGE's first generation of contract forms.

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<sup>&</sup>lt;sup>45</sup> *Id*. at 1.

<sup>&</sup>lt;sup>46</sup> Northwest and Intermountain Power Producers Coalition, et al. v. Portland General Electric Co., Docket No. 1805, Order No. 17-256 at 3 (July 13, 2017).

- Q. Did the Commission approve PGE's 2006 Contract Form and 2006 Schedule
- **201?**

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- 3 A. Yes, the Commission approved PGE's 2006 Contract Form and 2006 Schedule
- 4 201 on February 27, 2007, in Order No. 07-065. 47
- 5 Q: What text in that standard contract form limited the fixed prices to the first
- 6 15 years following contract execution?
- 7 A: The 2006 Contract Form and 2006 Schedule 201 address the 15-year fixed-price
- period using precisely the same language as that used in the 2005 Contract Form
- and the 2005 Schedule. A copy of the 2006 Contract Form and 2006 Schedule
- 10 201 are attached as Exhibit PGE 105.

PGE's 2006 Schedule 201 at Sheet No. 201-2 provided that the PPA has a maximum 20-year term, although the QF can opt for fewer years. <sup>48</sup> Sheet No. 201-8 states that "The Fixed Price Option is . . . available for a maximum term of 15 years. Sellers with contracts exceeding 15 years will make a one time election at execution to select a market-based option for all years up to five in excess of the initial 15." Section 1.7 and Section 5 of the 2006 Contract Form limited the fixed price option to the first 15 years measured from contract execution and requiring the QF to select a market price option for the remainder of the contract

Term.<sup>50</sup>

<sup>&</sup>lt;sup>47</sup> Docket No. 1129, Order No. 07-065 (Fe. 27, 2017).

<sup>&</sup>lt;sup>48</sup> PGE Exhibit 105 at 4 (PGE's 2006 Schedule 201 at Sheet 201-2).

<sup>&</sup>lt;sup>49</sup> *Id.* at 10 (PGE's 2006 Schedule 201 at Sheet 201-8).

<sup>&</sup>lt;sup>50</sup> *Id.* at 26 and 32 (PGE's 2006 Contract Form at Section 1.7 and Section 5).

### E. SUBSEQUENT CHANGES TO PGE'S STANDARD PPA DID NOT CHANGE THE START DATE FOR 15 YEARS OF FIXED PRICES

- Q. Before PGE and NewSun entered into the NewSun PPAs, did the Commission require PGE to modify the 2006 Contract Forms or the 2006 Schedule 201?
- Yes, PGE and the NewSun Parties executed the NewSun PPAs between January 4 A. 25, 2016, and June 27, 2016. Prior to June 27, 2016, the Commission required 5 PGE to modify its standard contract forms on several occasions, including in 6 7 response to Order No. 07-360, Order No. 11-505, Order No. 14-058, and Order 8 No. 15-130. But none of the Commission's orders issued before the NewSun 9 PPAs were executed ever required PGE to modify its approach to the 15-year 10 fixed-price period. Rather, these orders required PGE to modify requirements of the standard contract forms unrelated to the 15-year fixed-price issue. 11
- Q. Please explain how PGE changed its standard contract form and rate schedule in response to Order No. 11-505 and Order No. 16-058.
- 14 A. In Docket No. UM 1129, one of the issues identified as requiring further
  15 investigation was the question of when a utility is resource sufficient or resource
  16 deficient. On October 23, 2008, the Commission opened Docket No. UM 1396
  17 to further investigate this issue. Docket No. UM 1396 ultimately resulted in Order
  18 No. 10-488 and Order No. 11-505 in which the Commission designated the
  19 Integrated Resource Plan as the appropriate venue for the resource

<sup>&</sup>lt;sup>51</sup> Order No. 06-538 at 54.

sufficiency/deficiency determination <sup>52</sup> and required PGE and PacifiCorp to purchase renewable OF power at renewable avoided cost rates. <sup>53</sup>

However, no new standard contract forms were ultimately approved in Docket No. UM 1396 in compliance with Order No. 10-488 or Order No. 11-505. Instead, in the summer of 2012, the Commission opened Docket No. UM 1610, a general investigation into the implementation of PURPA. <sup>54</sup> This investigation involved participation by a large group of stakeholders, the development of an extensive issue list, pre-filed testimony, a hearing, and post-hearing briefs. <sup>55</sup>

On February 24, 2014, the Commission issued Order No. 14-058, its Phase I order in Docket No. UM 1610. The order mandated changes to the standard contract forms and associated rate schedule. For example, Order No. 14-058 eliminated the requirement that utilities offer different avoided cost pricing options because, in practice, all QFs were opting for the same fixed cost price option and avoiding the multiple market pricing options. <sup>56</sup>

Order No. 14-058 noted: "In Order No. 05-584, we adopted a 10 MW size threshold for standard contracts [and], 20-year standard contracts with 15-year fixed prices ...." Neither Order No. 14-058 nor Order No. 11-505 made any

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<sup>&</sup>lt;sup>52</sup> In the Matter of Public Utility Commission of Oregon Investigation into Determination of Resource Sufficiency, Pursuant to Order No. 06-538, Docket No. UM 1396, Order No. 10-488 at 8-9 (Dec. 22, 2010).

<sup>&</sup>lt;sup>53</sup> Docket No. UM 1396, Order No. 11-505 at 12 (Dec. 13, 2011).

<sup>&</sup>lt;sup>54</sup> In the Matter of Public Utility Commission of Oregon Staff Investigation into Qualifying Facility Contracting and Pricing, Docket No. UM 1610, Initial (Application, Complaint, Petition) (Jun. 29, 2012); see also Docket No. UM 1610, ALJ Ruling at 2 (Dec. 21, 2012) (adopting Phase I schedule in Docket No. UM 1610 and noting impact of investigation on related QF dockets, including Docket No. UM 1396).

<sup>&</sup>lt;sup>55</sup> Docket No. UM 1610, Order No. 14-058 at 5 (Feb. 24, 2014).

<sup>&</sup>lt;sup>56</sup> *Id.* at 23.

<sup>&</sup>lt;sup>57</sup> *Id.* at 4.

- changes to the 20-year maximum term and 15-year fixed price period established by Order No. 05-584.
- When PGE revised its standard PPA form in response to these orders, did it change the date for the start of the 15-year period for fixed prices?
- A. No. The changes PGE made to the standard form PPA were not intended to change, and did not change, the start date for the 15-year period for paying the fixed prices.

### 8 Q: When did PGE make changes to the standard form PPAs?

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A. On May 30, 2014, PGE made a compliance filing in response to Order No. 14-058 and Order No. 11-505. PGE revised its standard contract forms and rate schedule to eliminate unused market price options as required by Order No. 14-058 and to provide for renewable avoided cost prices and standard renewable contracts as required by Order No. 11-505. <sup>58</sup> PGE updated this compliance filing several times and its final supplemental filing was submitted on November 25, 2014. That filing was ultimately approved by Order No. 14-435 and allowed to go into effect on December 17, 2014. A copy of the most relevant parts of the November 25, 2014 filing has been provided as PGE Exhibit 106 and includes the revised Schedule 201 (the "2014 Schedule 201") and the Standard Renewable Off-System Variable Power Purchase Agreement (the "2014 Contract Form") submitted by PGE. <sup>59</sup>

<sup>58</sup> PGE Exhibit 106 at 1 (cover letter indicating revised contract forms and revised Schedule 201 were submitted in compliance with the requirements of Order No. 11-505 and Order No. 14-058).

<sup>&</sup>lt;sup>59</sup> PGE's November 25, 2014 supplemental compliance filing included PGE's proposed new Schedule 201 and the following eight standard contract forms: (1) Standard In-System Non-Variable PPA; (2) Standard Off-System Non-Variable PPA; (3) Standard In-System Variable PPA; (4) Standard Off-System Variable PPA; (5) Standard Renewable In-System Non-Variable PPA; (6) Standard Renewable Off-System Non-Variable PPA; (7) Standard Renewable In-System Variable PPA; and (8) Standard Renewable Off-System

- Q. In the 2014 Contract Form, did PGE change any of the language related to the 15-year fixed-price period that was contained in the 2005 and 2006
- **Contract Forms?**
- A. Yes, as discussed below PGE removed Section 5 (quoted above) from its contract forms and revised the language of Schedule 201. These changes were made for reasons unrelated to the 15-year fixed-price issue but incidentally modified language involving the 15-year fixed price period (such as Section 5 from the 2005 and 2006 Contract Forms). Even with these changes, however, the 2014 Contract Form and the 2014 Schedule 201 continued to limit the availability of fixed prices to the first 15 years following contract execution.
- 11 Q. Please explain the relevant changes to the 2014 Contract Form.
- Because Order No. 16-058 directed PGE to remove three of the four unused 12 A. market price options previously found in Section 5 of the PGE's contract forms, 13 14 the 2014 Contract Form no longer had a section that allowed the QF to select between price options. Instead, the 2014 Contract Form simply stated in 15 Section 4.2 that "PGE shall pay Seller the Contract Price for all delivered Net 16 Output." 60 And the term "Contract Price" was defined in Section 1.6 as "the 17 applicable price, including on-peak and off-peak prices, as specified in the 18 [Schedule 201 Rate] Schedule."61 19

Variable PPA. In order to reduce the volume of material submitted in this proceeding, PGE Exhibit 106 includes only the clean and redline versions of Schedule 201 and the clean version of the Standard Renewable Off-System Variable PPA (there was no redline version of this document submitted on November 25, 2014, because the renewable contract forms were new and did not replace any prior forms). PGE is providing the Standard Renewable Off-System PPA because that is the type of contract the NewSun Parties entered into with PGE.

<sup>&</sup>lt;sup>60</sup> PGE Exhibit 106 at 33 (PGE's 2014 Contract Form at Section 4.2).

<sup>&</sup>lt;sup>61</sup> *Id.* at 27 (PGE's 2014 Contract Form at Section 1.6).

The 2014 Schedule 201 provided for a Standard Fixed Price Option and a
Renewable Fixed Price Option, both of which are only available for the first 15
years of the contract term. For example, Sheets 201-4 and 201-5 of the 2014
Schedule 201 state:
The Standard Fixed Price Option ... is available for a maximum of

The Standard Fixed Price Option ... is available for a maximum of 15 years. ... Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15.<sup>62</sup>

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## Q. Did the 2014 Contract Form and 2014 Schedule 201 continue to provide for a maximum 20-year term that begins at contract execution?

Yes. Under the 2014 Contract Form and 2014 Schedule 201, the term of the contract still ran for a maximum of 20 years measured from contract execution. Specifically, Sheet No. 201-1 of the 2014 Schedule 201 stated: "The [PPA] will have a term of up to 20 years as selected by the QF." Section 1.33 of the 2014 Contract Form made it clear that the terms and conditions of the 2014 Schedule 201 were incorporated by reference and made a part of the 2014 Contract Forms. The 2014 Contract Form also made it clear that the contract term began when the contract is executed by both parties. The 2014 Contract Form also made it clear that the contract term began when the contract is executed by both parties.

Because the 2014 Contract Form provides for a contract term that begins at execution and has a maximum duration of 20 years, and because it provides that Sellers with contracts exceeding 15 years will receive Mid-C Index market prices for all years up to five in excess of the initial 15, it is clear from the plain

<sup>&</sup>lt;sup>62</sup> *Id.* at 6-7 (PGE's 2014 Schedule 201 at Sheet Nos. 201-4 and 201-5).

<sup>&</sup>lt;sup>63</sup> *Id.* at 3 (PGE's 2014 Schedule 201 at Sheet No. 201-1).

<sup>&</sup>lt;sup>64</sup> *Id.* at 51 (PGE's 2014 Contract Form at Section 1.33).

<sup>&</sup>lt;sup>65</sup> *Id.* at 51, 47, and 52 (PGE's 2014 Contract Form at Section 1.38 (defining "Term" as the period from the Effective Date to the Termination Date)) and Sections 1.8 and 2.1 (defining "Effective Date" as the date the contract is executed by both parties).

language of the 2014 Contract Form that PGE's standard contracts continued to limit the availability of fixed prices to the first 15 years measured from contract execution, just as PGE's contract forms have done since the first forms PGE filed in compliance with Order No. 05-584. This makes sense because the Commission had already approved PGE's approach as consistent with Order No. 05-584 and the Commission never ordered PGE (until Order No. 17-256 issued in July 2017) to change its approach.

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## Q. Do the NewSun PPAs address the 15-year fixed-price period using the same language as that found in the 2014 Contract Form?

Yes. The NewSun PPAs were based on contract forms filed with the Commission on May 27, 2015, and approved by the Commission on September 22, 2015, in Order No. 15-289 (the "2015 Contract Forms"). <sup>66</sup> A copy of the most relevant part of PGE's May 27, 2015 filing is attached as PGE Exhibit 107. <sup>67</sup> The 2015 Contract Forms were submitted in compliance with Order No. 15-130, an order in which the Commission adopted a stipulation by the stakeholders in docket UM 1610 which clarified that a QF could delay completing the requirements that are the conditions for a scheduled commercial operation date for up to three years after the contract execution date. In order to implement this Commission-approved stipulation, PGE revised its standard contract forms to include new Section 2.2.3, which stated:

<sup>&</sup>lt;sup>66</sup> Docket No. 1610, Order No. 15-289 at 1 (Sept. 22, 2015).

<sup>&</sup>lt;sup>67</sup> PGE's May 27, 2015 compliance filing included a clean and a redline version of Schedule 201 and each of PGE's eight standard contract forms. To reduce the volume of material submitted in this proceeding, PGE Exhibit 107 provides only the clean and redline versions of Schedule 201 and the clean and redline versions of the Standard Renewable Off-System Variable PPA.

2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. Buyer will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary. <sup>68</sup>

When it filed the 2015 Contract Form and the 2015 Schedule 201, PGE provided redline documents and a table noting all changes from the 2014 Contract Form and the 2014 Schedule 201. This material is included as part of PGE Exhibit 107. None of the changes proposed in the 2015 documents modified the approach to the 15-year fixed-price period established in the 2014 Contract Form and 2014 Schedule 201. Under the 2015 Contract Form and 2015 Schedule 201, The Contract Form continued to limit the availability of fixed prices to the first 15 years following contract execution.

## F. ORDER NO. 17-256 REQUIRED PGE TO CHANGE ITS FORMS TO PROVIDE THAT THE 15 YEARS OF FIXED PRICES BEGINS AT COMMERCIAL OPERATION

Q. After Order No. 05-584, did the Commission ever require PGE to offer fixed prices for 15 years measured from a date other than contract execution?

18 A. Yes, on July 13, 2017, the Commission issued Order No. 17-256 and for the first
19 time ordered PGE to offer fixed prices for 15 years measured from power delivery
20 rather than from contract execution.

21 Q. Did PGE change its standard contract forms and rate schedule is response?

22 A. Yes, on July 20, 2017, PGE filed revised contract forms and a revised Schedule 23 201 that obligate PGE to pay fixed prices for the first 15 years following the 24 scheduled commercial operation date selected by the QF Seller in Section 2.2.2 of

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<sup>&</sup>lt;sup>68</sup> PGE's Exhibit 107 at 34 (PGE's 2014 Contract Form at Section 2.2.3).

1		the standard PPA (a date that can be up to three years after contract execution). A
2		copy of the most relevant part of PGE's July 20, 2017 compliance filing is
3		attached as PGE Exhibit 108.69
4	Q.	Was this the first time that PGE's standard contract forms and rate schedule
5		provided for fixed prices for longer than the first 15 years measured from
6		contract execution?
7	A.	Yes, before PGE's July 20, 2017 compliance filing, all standard contract forms
8		and rate schedules submitted by PGE and approved by the Commission limited
9		the availability of fixed prices to the first 15 years following contract execution.
10	Q.	Did this include the standard contract forms and Schedule 201 used as the
11		basis for the NewSun PPAs?
12	A.	Yes, as discussed above, the NewSun PPAs are based on a set of standard contract
13		forms that were filed with the Commission by PGE on May 27, 2015, and which
14		were approved by the Commission in Order No. 15-289 and became effective on
15		September 23, 2015. The 2015 Contract Forms and 2015 Schedule 201 continued

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2014 Schedule 201.

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to limit the availability of fixed prices to the first 15 years measured from contract

execution using the exact same terms and conditions addressing contract term and

the 15-year fixed-price period as those found in the 2014 Contract Form and the

<sup>&</sup>lt;sup>69</sup> PGE's July 20, 2017 compliance filing included a clean and a redline version of Schedule 201 and each of PGE's eight standard contract forms. To reduce the volume of material submitted in this proceeding, PGE Exhibit 108 provides only the clean and redline versions of Schedule 201 and PGE's Standard Renewable Off-System Variable PPA.

#### IV. CONCLUSIONS

- Q. How do you interpret the requirement in Order No. 05-584 to offer fixed prices for 15 years?
- A. Order No. 05-584 directed PGE to offer standard contracts with a maximum term
  of 20 years and with fixed prices available for the first 15 years of the contract
  term followed by market prices for the remaining up to five years of the contract
  term. I interpret this to mean that PGE must offer fixed prices for the first 15
  years of the contract term, which begins at contract execution.

### 8 Q. How have PGE's contract forms complied with Order No. 05-584?

9 A. PGE's contract forms and Schedule 201 have limited the availability of fixed prices to the first 15 years of the contract term, measured from contract execution 10 from 2005 until the Commission directed PGE to change its contract form in 2017 11 to begin the 15-year fixed price period at commercial operation. From 2005 until 12 2014, both Section 5 and Exhibit D (Schedule 201 at Sheet 201-4) stated this 13 limitation. After 2014, PGE's contract forms continued to state this limitation 14 through the definition of Contract Price and Schedule 201 (at Sheet Nos. 201-4 to 15 201-5 and 201-12). The contract forms no longer reiterated the requirement in 16 Section 5 because Section 5 was removed for reasons unrelated to the 15-year 17 fixed-price period. Section 5 was eliminated because its function was to allow the 18 Seller to choose between four price options (one fixed price and three market 19 prices) but no one was using the market price options. As a result, in Order No. 20 14-058 the Commission ordered PGE to eliminate the unused market-price 21 options. 22

After Section 5 was removed in 2014, the contract forms simply stated that PGE would pay the applicable "contract price" from Exhibit D, Schedule 201 (the rate schedule was incorporated into the PPA by reference). Schedule 201 then provided that the maximum term of a standard PPA is 20 years, that PGE would pay a fixed price for the first 15 years of the contract, and that Sellers with contracts exceeding 15 years would receive the Mid-C Index price for all years up to 5 in excess of the initial 15.

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#### Q. Does PGE still limit the availability of fixed prices to the first 15 years 8 9 following contract execution?

A. No, effective September 19, 2017, PGE's contract forms and Schedule 201 began to offer fixed prices for 15 years measured from the scheduled Commercial Operation Date rather than from the contract execution date. PGE made this change in response to Order No. 17-256. Before these forms became effective on 13 September 19, 2017, all of PGE's Commission-approved standard contract forms limited the availability of fixed prices to the first 15 years following contract execution. 16

#### Q. Are the NewSun PPAs based on these new 2017 contract forms?

No, the NewSun PPAs were executed in the first half of 2016, before the new A. 18 2017 contract forms became effective. The NewSun PPAs are based on a set of 19 20 contract forms that became effective on September 23, 2015, and which limit the availability of fixed prices to the first 15 years after contract execution. 21

#### Q. How do you interpret the contracts signed by each of the NewSun Parties?

1	A.	I interpret the contracts to provide fixed prices for the first 15 years of the contract
2		measured from contract execution. The Renewable Fixed Price Option in
3		Schedule 201, sheet 201-12, included in each contract states:
4		This option is available for a maximum term of 15 years. Prices
5 6		will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b,
7		5a and 5b, or 6a and 6b, depending on the type of QF, effective at
8		execution. <sup>70</sup>
9		Schedule 201 included in each contract further states:
10		Sellers with PPAs exceeding 15 years will receive pricing equal to
11		the Mid-C Index Price and will retain all Environmental Attributes
12		generated by the facility for all years up to five in excess of the
13		initial 15. <sup>71</sup>
14		In addition, the term in Section 2.1 of the 2015 Contract Form clearly states:
15		"This Agreement shall become effective upon execution by both Parties
16		('Effective Date')." <sup>72</sup>
17	Q.	Did you write the language in Schedule 201 referenced above?
18	A.	Yes. I also provided the final review of the language.
19	Q.	Did you intend for the 15 years of fixed pricing to begin at contract
20		execution?
21	A.	Yes. That was the intent and that is why the Schedule 201 included in the
22		contracts at issue include this language.
23	Q.	When you wrote the language in Schedule 201, did you consider that
24		PacifiCorp and Idaho Power offer to pay fixed prices for 15 years measured
25		from power deliver?

<sup>&</sup>lt;sup>70</sup> PGE Exhibit 107 at 15 (PGE's 2015 Schedule 201 at Sheet No. 201-12). <sup>71</sup> *Id.* <sup>72</sup> *Id.* at 34 (PGE's 2015 Contract Form at Section 2.1).

- A. No, when I wrote the language of Schedule 201 I focused on the requirement in

  Order No. 05-584 to offer a standard contract with a maximum 20-year term and

  with fixed prices for the first 15 years of the contract followed by market prices

  for the last 5 years of a 20-year contract. Also, PacifiCorp's start date and Idaho

  Power's start date differ from each other for the 15 years of fixed prices, so there

  is no single standard in Oregon.
- Q. When you wrote the language in Schedule 201, did you consider whether other utilities around the country offer fixed prices for a period of years measured from commercial operation?
- 10 A. No, when I wrote the language in Schedule 201 I was focused on what Order No.
  11 05-584 requires and on the fact that the Commission had previously approved
  12 PGE's 2005 and 2006 Contract Forms, which limited the availability of fixed
  13 prices to the first 15 years following contract execution.
- 14 Q. Is there any other text indicating that the 15-years of fixed prices runs from
  15 execution and not the later commercial operation date?
- 16 A: Yes. The Schedule 201 provides that for Net Output delivered before the
  17 commercial operation date, the off-peak fixed prices from the fixed price tables
  18 apply. Sheet No. 201-4 explains that for "all Net Output delivered prior to the
  19 Commercial Operation Date" the Off-Peak Avoided Cost tables apply.<sup>73</sup> In that
  20 text, the Schedule 201 explicitly and expressly states that the fixed prices apply
  21 before the commercial operation date. This supports PGE's position. PGE is
  22 obligated to pay off-peak fixed prices for power delivered before commercial

<sup>&</sup>lt;sup>73</sup> *Id.* at 7 (PGE's 2015 Schedule 201 at Sheet No. 201-4).

- operation because PGE's 15-year obligation to pay fixed prices for delivered net
- 2 output begins at contract execution, not at commercial operation.
- What do you conclude about the 15-year fixed price term based on the contracts signed by each QF?
- 5 A. The NewSun PPAs are clear. The fixed prices are available for the first 15 years of the contract measured from contract execution.

### V. QUALIFICATIONS

- 7 Q. Please state your educational background and experience.
- A. I received a Bachelor of Arts business degree from Portland State University, with a focus in Finance. Since joining PGE in 2008, I have worked as an analyst in the Rates and Regulatory Affairs Department. My duties at PGE have included pricing, revenue requirement, Public Utility Regulatory Policies Act avoided costs, and regulatory issues. From 2004 to 2008, I was a consultant with Bates Private Capital in Lake Oswego, Oregon, where I developed, prepared, and reviewed financial analyses used in securities litigation.
- 15 Q. Does this conclude your testimony?
- 16 A. Yes.

### **List of Exhibits**

<u>Exhibit</u>	<u>Description</u>
101	Alfalfa Solar I PPA (effective January 25, 2016)
102	PGE's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584
103	PacifiCorp's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584
104	Idaho Power's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584
105	PGE's October 20, 2006 compliance filing in Docket No. UM 1129 responding to Order 06-538
106	PGE's November 25, 2014 compliance filing in Docket No. UM 1610 responding to Order 14-058
107	PGE's May 27, 2015 compliance filing responding in Docket No. UM 1610 to Order 15-130
108	PGE's July 20, 2017 compliance filing in Docket No. UM 1805 responding to Order 17-256

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102	PGE's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584
103	PacifiCorp's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584
104	Idaho Power's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584
105	PGE's October 20, 2006 compliance filing in Docket No. UM 1129 responding to Order 06-538
106	PGE's November 25, 2014 compliance filing in Docket No. UM 1610 responding to Order 14-058
107	PGE's May 27, 2015 compliance filing responding in Docket No. UM 1610 to Order 15-130
108	PGE's July 20, 2017 compliance filing in Docket No. UM 1805 responding to Order 17-256

## UM 1931 PGE Exhibit 101

Alfalfa Solar I PPA (effective January 25, 2016)

68540

## STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE

### **AGREEMENT**

## **RECITALS**

Seller intends to construct, own, operate and maintain a photovoltaics-based solar generation facility for the generation of electric power located in Crook County, <a href="Oregon">Oregon</a> with a Nameplate Capacity Rating of 10,000 kilowatt ("kW"), as further described in Exhibit A ("Facility"); and

Seller intends to operate the Facility as a "Qualifying Facility," as such term is defined in Section 3.1.3, below.

Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.21, below, from the Facility in accordance with the terms and conditions of this Agreement.

### **AGREEMENT**

NOW. THEREFORE, the Parties mutually agree as follows:

## **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.

- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:
- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.

- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.
  - 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with Bonneville Power Administration electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period (provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date) plus any reasonable costs incurred by PGE to purchase

replacement power and/or transmission to deliver the replacement power to the Point of Delivery (For Start-Up Lost Energy Value See 1.35).

- 1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:
  - MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)
- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.

- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MVh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.
- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture

not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours and Off-Peak Hours in each day.
- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).

- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

## SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
- 2.2.1. By thirty-five (35) months after the effective date Seller shall begin initial deliveries of Net Output; and
- 2.2.2. By thirty-six (36) month anniversary of the Effective Date Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
- 2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.
- 2.3. This Agreement shall terminate on the completion of the last day of the sixteenth (16<sup>th</sup>) Contract Year, or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").

## **SECTION 3: REPRESENTATIONS AND WARRANTIES**

3.1. Seller and PGE represent, covenant, and warrant as follows:

- 3.1.1. Seller warrants it is a Limited Liability corporation duly organized under the laws of Delaware.
- 3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
- 3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
- 3.1.4. Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
- 3.1.6. Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
  - 3.1.8. Seller warrants that Net Dependable Capacity of the Facility is 10,000 kW.
- 3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is \_20,000,000 kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):

- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of <u>40,000,000</u> kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above-described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.
- 3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005 through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's

efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

## SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- Seller shall provide preschedules for all deliveries of energy hereunder, 4.4. including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5. During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the

Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

## SECTION 5: OPERATION AND CONTROL

- 5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

## SECTION 6: CREDITWORTHINESS

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be

acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

## SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

## SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for two consecutive Contract Years or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
  - 8.1.6. Seller's failure to meet the Commercial Operation Date.
- 8.2. In the event of a default under Section 8.1.6, PGE may provide Seller with written notice of default. Seller shall have one year in which to cure the default during which time the Seller shall pay PGE damages equal to the Lost Energy Value. If Seller is unable to cure the default, PGE may immediately terminate this Agreement as provided in Section 8.3. PGE's resource sufficiency/deficiency position shall have no bearing on PGE's right to terminate the Agreement under this Section 8.2.

- 8.3. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.5. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.6. Sections 8.1, 8.4, 8.5, 10, and 19.2 shall survive termination of this Agreement.

## SECTION 9: TRANSMISSION CURTAILMENTS

- 9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.
- 9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

## **SECTION 11: INSURANCE**

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial

limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

## **SECTION 12: FORCE MAJEURE**

12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

## SECTION 13: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

## SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

## SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

## **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

## SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

## SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

## **SECTION 19: ENTIRE AGREEMENT**

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

## SECTION 20: NOTICES

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:

Alfalfa Solar I LLC

3500 South DuPont Highway

Dover, DE 19901

jstephens@newsunenergy.net

with a copy to:

Stephane Nguyen

c/o Reed Smith

1901 Avenue of the Stars Los Angeles, CA 90067-6078 Snguyen@reedsmith.com

with a copy to:

**Greg Adams** 

c/o Richardson Adams, PLLC 515 N. 27<sup>th</sup> Street, 83702

PO Box 7218, Boise, ID 83702

greg@richardsonadams.com

To PGE:

Contracts Manager

QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204

20.2 The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 20.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in their respective names as of the Effective Date.

**PGE** 

Name: Mona Wice Dios: Sent Dome Suphy Date: June 24,2016 Dos. & Regular Approved By:

Business
Terms

Credit

Legal

Risk Migt.

TB

(Name Seller)

By: \_\_\_\_\_\_\_ Name: Jacob H Stephens

Title: Manager

Date: 10/710 2011

## EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

Alfalfa Solar I is a photovoltaics-based solar generating facility to be sited in the Alfalfa, OR area, per initial siting identified on parcels surrounding Horsell Rd and Willard Rd (which intersect at 44.076, -120.992). Upon reaching full Commercial Operations the Facility will have nameplate capacity of 10 MW-AC net output at the point of interconnection subject to available solar energy input and its dispatching. The facility will consist of the following primary equipment:

- PV Modules Commercially-available photovoltaic modules for utility-scale DC energy production. Nominal per module DC production rating of 350W +/-50W-DC. Qty
   [14MM/(module rating)].
- 2. Inverters: Commercially-available string inverter (90kW-AC, nominal) or central station inverter convert DC to AC power, collected by AC wiring to switchboard.
- 3. Pad-mounted transformers: for each sub-generator shall transform inverter output voltage to plant AC collection voltage, as well as step-up transformation
- 4. Racking systems, commercially-available, will mount the PV Modules and direct them and control their angle to receive light from the sun. Racking systems will be arranged in generally uniform rows on the facility site.
- 5. Additional interconnection, transformation, switching, storage, metering, communications, tie-line, and meteorological observations facilities as may be required,

subject to final interconnection, permitting, and design requirements, per Seller facility and siting design and interconnection facilities design(s) as resultant from interconnection studies with Bonneville Power Administration and/or Central Electric Cooperative, as applicable, for delivery to transmission owner and for auxiliary power requirements.

- 6. Firming capabilities by batteries. Under no circumstance will generation exceed 10 MW at point of interconnection, which defines generation size. Battery storage system will be designed and installed 'behind' the inverter system of the facility (and be limited by the inverter capacity, per system AC nameplate limitations).
- 7. Transmission and interconnection plan: Power will be delivered to PGE system via BPA transmission system. Interconnection studies have been initiated with BPA in early 2016 such that final study results will be completed by mid-2017, based on the BPA SGIR tariff timelines, allowing sufficient time for construction of required interconnection facilities. Seller has examined prior studies in the interconnection vicinity and assessed reasonable cost outcomes.

Final siting location to be determined subject to optimization by Seller of siting options in the vicinity, and corresponding Seller updates to FERC Form 556 and compliance with applicable FERC and OPUC rules for limitations of maximum generation under same ownership and/or control (as applicable) within one and five miles, respectively, for QF certification and availability of Schedule 201 standard contracts, per representations and warrantees contained herein.

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

- 1. Seller's Generation Interconnection Agreement(s) with interconnecting utilit(ies), as applicable
- 2. Transmission Agreement between Seller and Transmission Provider
- 3. County CUP & Building Permits
- 4. Additional items as may be determined by Seller to be required for facility permitting, construction, and interconnection.

## EXHIBIT C START-UP TESTING

## [Seller identify appropriate tests]

As part of the start-up of Facility, Seller will perform the following tests, in addition to any further tests deemed required in coordination with EPC contractor (the Facility's manufacturer) and primary supply vendors (PV modules, inverters, transformers, batteries) and interconnecting utility. This will include required factory checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable). This will include required start-up tests and checks which necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Validation of mechanical assembly completion for sign-off on EPC vendor warranty of mechanical completion and workmanship, including racking system, wiring (module connections, DC collection, string terminations, inverter connections to collected strings, AC delivery to switchboard and step-up/collection transformers, and AC collection system deliver to interconnection facilities), inverter mounting, and module installation.
- 2. Electrical performance validation by facility PV string and sub-generator, per insolation input, including:
- a) DC wiring inputs to inverters
- b) AC wiring delivery to transformers
- 3. Inverter Commissioning, per manufacturer specifications, including commissioning report;
- 4. Facility daily start-up and shut-down automation confirmed;
- 5. Energization of transformers;
- 6. Full system performance test;
- 7. Interconnection facilities: Commissioning of on-site, tie-line, and off-site interconnection facilities (as applicable), including switchyard, substation, breakers, and metering equipment (as applicable), in coordination with applicable interconnecting utility (Central and/or BPA) and performing electrical contractor;
- 8. Cataloguing of installed equipment on-site, including primary equipment serial numbers and manufacturer information for O&M documentation;
- 9. Complete pre-parallel checks with PGE;
- 10. Test energy delivery and metering checks.
- 11. Excitation and voltage regulation operation tests per insolation inputs.
- 12. Meteorological station commissioning and report;
- 13. Facility communications equipment commissioning and report; and
- 15. Other tests as may be required by equipment manufacturers.

## EXHIBIT D

## SCHEDULE

[Attach currently in-effect Schedule 201]

Portland General Electric Company

Sheet No. 201-1

## SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

#### **PURPOSE**

To provide information about Standard Avoided Costs and Renewable Avoided Costs, Standard Power Purchase Agreements (PPA) and Negotiated PPAs, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

#### AVAILABLE

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

#### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

#### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

#### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

#### PPA

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a PPA with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

Effective for service on and after September 23, 2015

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Portland General Electric Company

Sheet No. 201-2

#### SCHEDULE 201 (Continued)

PPA (Continued)

Any Seller may elect to negotiate a PPA with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on either the filed Standard Avoided Costs or Renewable Avoided Costs in effect at that time

#### STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

#### GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

#### SCHEDULE 201 (Continued)

#### OFF-SYSTEM PPA

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a PPA with the Company after following the applicable Standard or Negotiated PPA guidelines and making the arrangements necessary for transmission of power to the Company's system.

#### BASIS FOR POWER PURCHASE PRICE

#### AVOIDED COST SUMMARY

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facilities, such utility would generate itself or purchase from another source."

Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

#### ON-PEAK PERIOD

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

#### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

Effective for service on and after September 23, 2015

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Portland General Electric Company

Sheet No. 201-4

### SCHEDULE 201 (Continued)

#### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

#### Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

Portland	General	Electric	Com	pany
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Sheet No. 201-5

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15.

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Portland General Electric Company

Sheet No. 201-6

#### SCHEDULE 201 (Continued)

## PRICING OPTIONS FOR STANDARD PPA (Continued) Standard Fixed Price Option (Continued)

					Т.	ABLE 1a						
					Avo	ided Cos	ts					
			St	andard F	ixed Pric	e Option	for Base	Load QF	:			
				0	n-Peak F	orecast	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33,13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30,97	31.97	34.43
2017	34.12	32.56	29,20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35,92	37.09	39.97
2019	38,14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41,81
2020	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	78.65	78.41	74.08	73.15	73.29	73.45	73.59	73.74	73.90	74.05	76.07	77.39
2022	79.87	80,05	78.71	76.75	76.53	76.61	76.77	76.94	77.11	77.75	80.48	81.61
2023	82.88	82.91	80.52	79.06	78.47	78.48	78.64	78.81	78.99	79.72	82.44	83.38
2024	85.05	84.50	82.79	81.04	80.24	79.89	80.07	80.24	80.42	81.68	83.94	84.91
2025	87.42	86.98	85.17	83.82	83.53	83.72	83.91	84.10	84.30	84.97	88.09	89.08
2026	93.67	93.90	93.15	91.55	91.31	91.55	91.77	92.00	92.24	93.05	96.36	97.00
2027	98.91	99.16	94.04	92.43	92.18	92.41	92,63	92.86	93.10	93.79	97.14	98.19
2028	99.59	99.83	95.18	93.58	93.32	93.56	93.78	94.01	94.25	94.96	98.47	99.54
2029	102.08	101.44	98.36	96.44	95.98	96.23	96.46	96.70	96.95	97.67	101.14	103.35
2030	104.39	104.04	99.48	97.63	97.34	97.59	97.83	98.07	98.32	99.06	102.58	105.91
2031	105.92	105.62	101.91	99.62	99.32	99.57	99.81	100.05	100.31	101.06	104.65	105.79
2032	107,68	107.37	103.59	101.26	100.94	101.20	101.44	101.69	101.95	102.73	106.38	107.54
2033	110.15	109.84	105,98	103.61	103.29	103.55	103.80	104.05	104.32	105.10	108.83	110.01
2034	112.43	112.11	108.18	105.75	105.43	105.69	105.95	106.21	106,48	107.28	111.08	112.29
2035	114.62	114.29	110.28	107.81	107.48	107.75	108.01	108.27	108.55	109.37	113.24	114.47
2036	116.98	116.65	112.56	110.04	109.70	109.97	110.24	110.51	110.79	111.62	115.57	116.83
2037	119.72	119.38	115.21	112.64	112.29	112.57	112.84	113.12	113.41	114.26	118.29	119.57
2038	122.36	122.01	117.76	115.14	114.79	115.08	115.35	115.63	115.93	116.79	120.90	122.21
2039	124.88	124.52	120.19	117.52	117.16	117.45	117.73	118.02	118.32	119.20	123.39	124.72
2040	127.74	127.37	122.95	120.23	119.86	120,16	120.45	120.74	121.04	121.94	126.22	127.57

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued) Standard Fixed Price Option (Continued)

						ABLE 1b						
						ided Cos						
			Sta		ixed Pric			Load QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18,54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30,11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19,89	15,96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35,60	38,36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31,45	37.85	34.75	37.24	38,17	41.14
2021	40.11	39.87	35.54	34.60	34.75	34.90	35.05	35.20	35.36	35.51	37.52	38.85
2022	40.59	40.76	39.42	37.47	37.25	37.32	37.48	37.65	37.82	38,46	41,19	42.33
2023	42.71	42.74	40.35	38.89	38.29	38.30	38.47	38.64	38.82	39.55	42.26	43,21
2024	44.36	43.81	42.10	40.35	39.55	39.21	39.38	39.55	39.73	40.99	43,26	44.22
2025	45.81	45.38	43.57	42.22	41.92	42.12	42.30	42.49	42.69	43.37	46,48	47.48
2026	51.27	51.49	50.74	49.14	48.90	49.14	49.36	49.60	49.84	50.64	53,95	54.59
2027	55.68	55.93	50.81	49.20	48.95	49.18	49.41	49.63	49.87	50.56	53.91	54.97
2028	55.52	55.77	51.12	49.52	49.26	49.50	49.72	49.95	50.19	50.90	54.41	55.48
2029	57.17	56.53	53.44	51.52	51.07	51.31	51.55	51.79	52.04	52.76	56.23	58.44
2030	58.61	58.26	53.70	51.85	51.57	51.81	52.05	52.29	52.54	53.28	56.80	60.13
2031	59.26	58.95	55.25	52.96	52.65	52.90	53.14	53.39	53.64	54.40	57.98	59.12
2032	60.42	60.11	56.33	54.00	53.68	53.94	54.18	54.43	54.69	55.46	59.12	60.28
2033	61.67	61.36	57.50	55.13	54.81	55.07	55.32	55.57	55.84	56.62	60.35	61.53
2034	62,85	62.53	58.60	56,18	55.85	56.12	56.37	56.63	56.90	57.70	61.50	62.71
2035	64.25	63.92	59.91	57.44	57.11	57.38	57.64	57.90	58.18	59,00	62.87	64.10
2036	65.80	65.47	61.38	58.86	58.52	58.80	59.06	59,33	59.61	60.44	64.40	65,65
2037	67.39	67.04	62.87	60.31	59.96	60,24	60.51	60.79	61.07	61.92	65.95	67.23
2038	69.02	68.67	64.42	61.80	61.44	61.73	62.01	62.29	62.58	63.45	67.56	68.86
2039	70.51	70.15	65.82	63.14	62.78	63.08	63.36	63.64	63.94	64.83	69.02	70.35
2040	72,31	71.95	67.53	64.81	64.44	64.74	65.02	65,32	65.62	66.52	70.79	72.15

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

						ABLE 2a						
						ided Cos						
				Standare			on for Wi	nd OF				
						orecast (		iliu uzi				
					III CUIT	OI COUDT (	<b>4</b> / 11/1 <b>7</b> 1 1/					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.36	21.36	22.36	18.11	19.11	21.36	29.36	30.96	25.86	23.61	25.11	29.36
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32,42	28.38	27.13	28.13	30.59
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98
2019	34.07	32.33	28,56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	- 34.73	37.74
2020	36.21	34.36	30.37	28.53	27.62	25.35	36.82	42.47	37.23	35.61	36.91	40.10
2021	37.81	37.56	33.23	32.30	32.45	32.60	32.75	32.90	33.05	33.21	35.22	36.54
2022	38.24	38.42	37.08	35.12	34.90	34.98	35.14	35.30	35.47	36.11	38.85	39.98
2023	40.33	40.36	37.97	36.51	35.91	35.92	36.09	36.26	36.43	37.17	39.88	40.83
2024	41.92	41.37	39.66	37.92	37,11	36,77	36.94	37.12	37.30	38,56	40.82	41.79
2025	43.33	42.90	41.09	39.74	39.44	39.64	39.82	40.02	40.21	40.89	44.00	45.00
2026	48.74	48.96	48.21	46.61	46.37	46.61	46.83	47.07	47.31	48.11	51.42	52.06
2027	53.11	53.35	48.23	46.62	46.37	46.60	46.83	47.06	47.29	47.99	51.33	52.39
2028	52.90	53,14	48.49	46.89	46.63	46.87	47.10	47.32	47.56	48.27	51.78	52.85
2029	54.50	53.85	50.77	48.85	48.40	48.64	48.87	49.11	49.36	50.09	53.55	55.76
2030	55.88	55.53	50.97	49.12	48.83	49.08	49.32	49.56	49.81	50.55	54.07	57.40
2031	56.47	56.17	52.46	50.18	49.87	50.12	50,36	50.60	50.86	51.61	55.20	56,34
2032	57.57	57.26	53.48	51,15	50.84	51,09	51.34	51.59	51.85	52.62	56.27	57.43
2033	58.79	58.47	54.62	52.24	51.92	52.18	52.43	52.68	52.95	53.74	57.46	58.65
2034	59.91	59.59	55.66	53.24	52.91	53,18	53.43	53.69	53.96	54.76	58.56	59.77
2035	61.25	60.92	56.91	54.44	54.11	54.38	54.64	54.90	55.18	56.00	59.87	61.10
2036	62.73	62.40	58.31	55.79	55,45	55.72	55.99	56.26	56.54	57.37	61.32	62.58
2037	64.26	63.92	59.75	57.18	56.83	57.12	57.39	57.66	57.95	58.80	62.83	64.11
2038	65.84	65.49	61.24	58.62	58.26	58.55	58.82	59.11	59.40	60.27	64.37	65.68
2039	67.26	66.91	62.57	59.90	59.54	59.84	60.12	60.40	60.70	61.58	65.77	67.11
2040	69.00	68.64	64.22	61.50	61.13	61.43	61.71	62.01	62.31	63.21	67,49	68.84

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued) Standard Fixed Price Option (Continued)

					T/	ABLE 2b			***			
						ded Cos	5					
				Standard	Fixed P	rice Option	on for Wi	nd QF				
				0	ff-Peak F	orecast (	\$/MWH)					
		:										
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	23.11	16.61	17.11	12.11	14.11	15.36	20.11	22.36	21.86	19.36	21.61	24.61
2016	23.22	22.15	19.48	14.70	12.81	9.59	19.29	23.90	21.67	23.46	24.13	26.27
2017	26,36	25.15	22.13	17.56	15.32	11,52	21.46	26.58	24.11	26.02	26.76	29.12
2018	28,61	27.30	24.04	18.21	15.90	11.97	23.81	29.44	26.72	28.90	29.72	32.33
2019	30.35	28.97	25,52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29
2020	32.76	31.27	27.57	20.93	18.31	13.84	27.30	33,70	30.60	33.09	34.02	36.99
2021	35.88	35.64	31.31	30.37	30.52	30.67	30.82	30.97	31.13	31.28	33.29	34.62
2022	36.28	36.45	35.11	33.16	32.94	33.01	33.17	33.34	33.51	34.15	36.88	38.02
2023	38.32	38.35	35.96	34.50	33.90	33.91	34.08	34.25	34.43	35,16	37.87	38.82
2024	39.89	39.34	37.63	35.88	35.08	34.74	34.91	35.08	35.26	36.52	38.79	39.75
2025	41.25	40.82	39.01	37.66	37.36	37.56	37.74	37.93	38.13	38.81	41.92	42.92
2026	46.62	46.84	46.09	44.49	44.25	44.49	44.71	44.95	45.19	45.99	49.30	49.94
2027	50.94	51.19	46,07	44.46	44.21	44.44	44.67	44.89	45.13	45.82	49.17	50.23
2028	50.69	50.94	46.29	44.69	44.43	44.67	44.89	45.12	45.36	46.07	49.58	50.65
2029	52.25	51.61	48.52	46.60	46.15	46.39	46.63	46.87	47.12	47.84	51.31	53.52
2030	53.59	53.24	48.68	46.83	46,55	46.79	47.03	47.27	47.52	48.26	51.78	55.11
2031	54.14	53.83	50.13	47.84	47.53	47.78	48.02	48.27	48.52	49.28	52.86	54.00
2032	55,21	54.90	51.12	48.79	48.47	48.73	48.97	49.22	49.48	50,25	53,91	55.07
2033	56.36	56.05	52.19	49.82	49.50	49.76	50.01	50.26	50.53	51.31	55.04	56.22
2034	57.43	57.11	53.18	50.76	50.43	50.70	50.95	51.21	51.48	52.28	56.08	57.29
2035	58.73	58.40	54.39	51.92	51.59	51.86	52.12	52.38	52.66	53.48	57.35	58.58
2036	60.17	59.84	55.75	53.23	52.89	53.17	53.43	53,70	53.98	54.81	58.77	60.02
2037	61.65	61.30	57.13	54.57	54.22	54.50	54.77	55.05	55.33	56.18	60.21	61.49
2038	63,17	62.82	58.57	55.95	55.59	55.88	56.16	56.44	56.73	57.60	61.71	63.01
2039	64.55	64.19	59.86	57.18	56.82	57.12	57.40	57.68	57.98	58.87	63.06	64.39
2040	66.23	65,87	61.45	58.73	58.36	58.66	58.94	59.24	59,54	60.44	64.71	66.07

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

					T	ABLE 3a						
						ded Cos					,,	
***					Fixed P			lar QF				
				0	n-Peak F	orecast	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36,46	34.80	31.19	29.53	28,71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39,11	37.58	38.80	41.81
2020	40.36	38.51	34.52	32.68	31,77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	42.04	41.79	37.46	36.53	36.68	36.83	36.98	37.13	37.28	37.44	39.45	40.77
2022	42.55	42.73	41,39	39.43	39.21	39.29	39.45	39.61	39.78	40.42	43.16	44.29
2023	44.72	44.75	42.36	40.90	40.30	40.31	40.48	40.65	40.82	41.56	44.27	45.22
2024	46.39	45.84	44.13	42.39	41.58	41.24	41.41	41.59	41.77	43.03	45.29	46.26
2025	47.89	47.46	45.65	44.30	44.00	44.20	44.38	44.58	44.77	45.45	48.56	49.56
2026	53.39	53.61	52.86	51.26	51.02	51.26	51.48	51.72	51.96	52.76	56.07	56,71
2027	57.85	58.09	52.97	51.36	51.11	51.34	51.57	51.80	52.03	52.73	56.07	57,13
2028	57.73	57.97	53.32	51.72	51.46	51.70	51.93	52.15	52.39	53.10	56.61	57.68
2029	59.42	58.77	55.69	53.77	53.32	53.56	53.79	54.03	54.28	55.01	58.47	60.68
2030	60.90	60.55	55.99	54.14	53.85	54.10	54,34	54,58	54.83	55.57	59.09	62.42
2031	61.59	61.29	57.58	55.30	54,99	55.24	55.48	55.72	55,98	56,73	60,32	61.46
2032	62.78	62.47	58.69	56.36	56,05	56.30	56.55	56.80	57.06	57.83	61.48	62,64
2033	64.10	63.78	59.93	57.55	57.23	57.49	57.74	57.99	58.26	59.05	62.77	63.96
2034	65,33	65.01	61.08	58.66	58.33	58.60	58,85	59.11	59.38	60.18	63.98	65.19
2035	66.77	66.44	62.43	59.96	59.63	59.90	60,16	60.42	60.70	61.52	65.39	66.62
2036	68.36	68.03	63.94	61,42	61.08	61.35	61.62	61.89	62,17	63,00	66.95	68.21
2037	70,00	69.66	65.49	62.92	62.57	62.86	63.13	63,40	63,69	64.54	68.57	69.85
2038	71.69	71.34	67.09	64.47	64.11	64.40	64.67	64.96	65.25	66.12	70.22	71.53
2039	73.22	72.87	68.53	65.86	65.50	65.80	66.08	66.36	66.66	67.54	71.73	73,07
2040	75.08	74.72	70.30	67.58	67.21	67.51	67.79	68.09	68.39	69.29	73.57	74.92

#### Portland General Electric Company

Sheet No. 201-11

#### SCHEDULE 201 (Continued)

## PRICING OPTIONS FOR STANDARD PPA (Continued) Standard Fixed Price Option (Continued)

					T/	ABLE 3b			***************************************			
					Avo	ided Cos	s					
					Fixed P			lar QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18,54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35,60	38.36
2020	36,91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2021	40.11	39.87	35.54	34.60	34.75	34,90	35.05	35.20	35.36	35.51	37.52	38.85
2022	40.59	40.76	39.42	37,47	37.25	37.32	37.48	37.65	37.82	38.46	41.19	42.33
2023	42.71	42.74	40.35	38.89	38.29	38,30	38.47	38.64	38.82	39.55	42.26	43.21
2024	44.36	43.81	42.10	40.35	39.55	39.21	39.38	39.55	39.73	40.99	43.26	44.22
2025	45.81	45.38	43.57	42.22	41.92	42.12	42.30	42.49	42.69	43.37	46.48	47.48
2026	51.27	51.49	50.74	49.14	48.90	49.14	49.36	49.60	49.84	50.64	53.95	54.59
2027	55.68	55.93	50.81	49.20	48.95	49.18	49.41	49.63	49.87	50.56	53.91	54.97
2028	55.52	55.77	51.12	49.52	49.26	49,50	49.72	49.95	50.19	50.90	54.41	55.48
2029	57.17	56.53	53.44	51.52	51.07	51.31	51.55	51.79	52.04	52.76	56.23	58.44
2030	58.61	58.26	53.70	51.85	51.57	51.81	52.05	52.29	52.54	53.28	56.80	60.13
2031	59.26	58.95	55.25	52.96	52.65	52.90	53.14	53, 39	53.64	54.40	57.98	59.12
2032	60.42	60.11	56.33	54.00	53.68	53.94	54.18	54.43	54.69	55.46	59.12	60.28
2033	61.67	61.36	57.50	55.13	54,81	55.07	55.32	55.57	55.84	56.62	60,35	61.53
2034	62.85	62.53	58.60	56.18	55.85	56.12	56.37	56.63	56.90	57.70	61,50	62.71
2035	64.25	63.92	59,91	57.44	57.11	57.38	57.64	57.90	58.18	59.00	62.87	64.10
2036	65.80	65.47	61.38	58.86	58.52	58,80	59.06	59.33	59.61	60.44	64.40	65.65
2037	67.39	67.04	62.87	60,31	59.96	60.24	60.51	60.79	61.07	61.92	65.95	67.23
2038	69.02	68,67	64.42	61.80	61.44	61.73	62.01	62.29	62.58	63.45	67.56	68.86
2039	70.51	70.15	65.82	63.14	62.78	63.08	63.36	63.64	63.94	64.83	69.02	70,35
2040	72.31	71.95	67.53	64.81	64,44	64.74	65.02	65.32	65.62	66,52	70.79	72.15

Effective for service on and after September 23, 2015

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Portland General Electric Company

Sheet No. 201-12

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)

#### 2) Renewable Fixed Price Option

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company during the Renewable Resource Deficiency Period.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15.

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

		<del></del>			Т.	ABLE 4a						
				F	Renewabl	e Avoide	d Costs					
		_	Rei	newable l	ixed Pric	e Option	for Base	Load Q	F			
				0	n-Peak F	orecast	\$/MWH)					
	:											
Year	Jan	Feb	Mar	Apr	May	Jun	Jui	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.58	30,16	27.08	25.66	24.96	23.21	32.05	36.41	32.37	31.12	32.12	34.58
2017	34.27	32.71	29.35	28,28	27.50	25.55	34.66	39.41	35,01	33.98	35,07	37.78
2018	36.61	34.95	31.34	29.68	28.86	26.82	37.16	42.26	37.53	36.07	37.24	40.12
2019	38.30	36.56	32.79	31,05	30.19	28.05	38.88	44.22	39,27	37.74	38.96	41.97
2020	130.42	130,40	129.50	130.04	133.82	132.76	132.39	132.24	130.72	129.58	130.57	129.37
2021	133.36	133.64	131.86	133,13	136.49	135.59	134.91	135,52	133.73	132.54	134.08	132.51
2022	136,24	136.10	133.85	135.90	139.41	138,20	137.67	137.62	136.32	135.14	136.83	135.12
2023	139.39	138.88	136.54	138.99	141.88	141.01	140.60	140.17	139.18	137.81	139.83	138.53
2024	141.20	141,38	139.07	141.45	144.67	143.47	143.33	143.02	142.81	139.99	141.17	141.32
2025	144.44	144.83	142.24	145.02	149.08	147.69	146.57	146.72	145.76	143.11	144,48	144.07
2026	148.08	147.69	145.97	148.54	153.80	149.69	149.69	150.17	149.84	146.23	148.39	147.27
2027	150,98	150.46	148.51	151.01	158.07	152.64	152.20	153.90	152.54	149.20	150.73	150.17
2028	153.78	152.55	150.16	154.12	160.66	154.93	155,77	155.78	154.75	152.38	153.65	152.73
2029	157.02	156.74	153.60	157.59	169,40	159.30	159.39	159.39	159.45	155.48	156.44	156.31
2030	160.28	159.94	157.24	160.66	173.85	164.43	161.89	161.75	163.38	158.51	159.18	159.23
2031	163.23	162.64	160.72	164.67	177.15	169,11	164.90	166.01	166.26	161.75	163,06	162.54
2032	165.75	165,16	163.21	167.22	179.91	171.73	167.46	168,59	168.84	164.26	165.59	165.06
2033	169.59	168.98	166.98	171.09	184.06	175.70	171.33	172.48	172.74	168,06	169.41	168.88
2034	173.01	172.39	170.36	174.55	187.76	179.24	174.79	175.97	176.23	171.46	172.84	172.29
2035	176.35	175.72	173,65	177.91	191.39	182.70	178.16	179.36	179.63	174.76	176.17	175.62
2036	179.40	178.76	176.65	180,99	194.69	185.85	181.24	182.46	182.74	177.79	179.22	178.65
2037	183.23	182.57	180.41	184.85	198.85	189.82	185.10	186.35	186.63	181.58	183.04	182.46
2038	186.76	186.09	183.90	188.42	202.69	193.48	188.68	189.95	190,23	185.08	186.57	185.98
2039	190.37	189.68	187.44	192.05	206.60	197.22	192.32	193.61	193.91	188,65	190.17	189.57
2040	193.66	192.96	190,69	195.37	210.16	200.62	195.64	196.96	197.26	191.92	193.46	192.85

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

					T.A	BLE 4b						
				F	Renewable	Avoide	Costs					
			Ren	newable F	ixed Price	e Option	for Base	Load Q	F			
				0	ff-Peak F	orecast (	\$/MWH)					
								·				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23,13	25.38	28.38
2016	27.21	26.14	23.47	18.69	16.80	13.58	23.28	27.89	25.66	27.45	28.12	30.26
2017	30.42	29.21	26.19	21.62	19.38	15.58	25.52	30.64	28.17	30.08	30.82	33.18
2018	32.75	31.44	28.18	22.35	20.04	16.11	27.95	33.58	30,86	33.04	33.86	36.47
2019	34.58	33.20	29.75	23.58	21.14	16.98	29,51	35.46	32.58	34.89	35,76	38.52
2020	74.05	74.35	76.18	74.70	70,70	70.98	71.32	72.70	73.76	75,21	74.98	75.50
2021	76.61	75,69	77.70	76.08	72.65	72.71	73.48	73.88	75.25	77.66	74.78	76.80
2022	77.70	77.31	79.96	77.27	73.68	74.12	75.90	74.74	76.69	79.10	76.00	78.21
2023	78.70	78.76	81.53	79.38	74.14	75.53	77.17	76.51	78.04	80.71	77.14	79.80
2024	79.35	79.42	83.14	79.16	74.55	77.78	76.40	76,83	78.61	81,03	79.55	80.29
2025	80.96	80.94	84.88	80.33	74.54	78.20	78,02	79,19	79.32	82.81	82.21	81.48
2026	81.35	82.42	85.28	80.89	75.34	79.31	79.11	79.94	79.12	83,91	82.41	82.47
2027	84.14	84.11	86.28	82.99	75.15	80.77	81.16	80,43	80.90	86,39	83,38	83.99
2028	85.29	86.01	88.97	85.07	74.43	82.57	82.76	81.19	82.83	87.06	84.33	86.62
2029	85.87	86.84	90.61	86.72	68.73	82.93	84.21	82.59	84.39	88.00	86.85	88.12
2030	87.21	88.28	92.46	86.89	68.43	83.64	84.98	85.17	84.95	89.66	88.91	89.94
2031	89.10	90.50	93.69	87.32	69.81	83.38	86.78	86.97	85.14	91,14	90,93	90.04
2032	90.57	92,00	95.23	88.76	70.97	84.75	88,21	88.41	86.54	92.64	92.44	91.53
2033	92.57	94.03	97.34	90.72	72.53	86.63	90.16	90.36	88.46	94.69	94.48	93.55
2034	94.36	95.84	99.22	92.47	73.93	88.30	91,90	92.10	90.16	96.52	96.30	95.36
2035	96.18	97.69	101.13	94.25	75.36	90.00	93.68	93.88	91.90	98.38	98.16	97.20
2036	97.77	99.31	102,80	95.81	76.61	91.49	95.22	95.43	93,42	100,00	99.78	98.80
2037	99.93	101.50	105.07	97,93	78,30	93.51	97.33	97.54	95,49	102.21	101.99	100.99
2038	101.86	103.46	107.10	99.82	79.81	95.31	99.20	99.42	97.33	104.19	103.95	102.93
2039	103.82	105.46	109.17	101,74	81.35	97.15	101.12	101.34	99.21	106.20	105.96	104.92
2040	105.54	107.20	110.97	103.42	82.69	98.76	102.79	103.02	100.85	107.95	107.71	106.65

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

					Т.	ABLE 5a						
				F		e Avoide	d Costs					
		_		Renewab	le Fixed I	Price Opt	ion for W	/ind QF				
				0	n-Peak F	orecast	(\$/MWH)					
				<u> </u>		,		,			· ,	: ************************************
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.36	21.36	22.36	18.11	19.11	21.36	29.36	30.96	25.86	23.61	25.11	29.36
2016	27.74	26.32	23.24	21.82	21.12	19,37	28.21	32.57	28.53	27.28	28.28	30,74
2017	30.36	28.80	25,44	24.37	23.59	21.64	30.75	35,50	31.10	30.07	31.16	33.87
2018	32.62	30.96	27.35	25.69	24.87	22.83	33.17	38.27	33.54	32.08	33.25	36.13
2019	34.23	32.49	28.72	26.98	26.12	23.98	34.81	40.15	35,20	33,67	34.89	37.90
2020	89.69	89.67	88.77	89.31	93.09	92.03	91.66	91.52	90.00	88.85	89.84	88.64
2021	91.73	92.00	90,23	91.50	94.85	93.96	93.28	93,88	92.10	90,91	92.44	90.88
2022	93,81	93.66	91.42	93.47	96.98	95.77	95.23	95.19	93.89	92.71	94.39	92,68
2023	96.01	95.50	93.17	95.61	98.50	97.64	97.23	96.79	95.80	94.43	96.45	95.15
2024	97.25	97.43	95.12	97.50	100.71	99.51	99.38	99.07	98,85	96.03	97.21	97.37
2025	99.51	99.89	97.31	100,08	104.15	102.76	101.63	101.79	100.82	98,17	99.55	99.13
2026	102.27	101.88	100.16	102,74	108.00	103.89	103.89	104.37	104.03	100.42	102.58	101.47
2027	104.29	103,77	101.82	104.32	111.38	105.95	105.51	107.22	105.85	102.51	104.04	103,48
2028	106.19	104.96	102.57	106.53	113.07	107.34	108.18	108.19	107.16	104.79	106.06	105.14
2029	108.51	108.23	105.09	109.08	120.90	110.80	110.89	110.89	110.94	106.98	107.94	107.81
2030	110.84	110.49	107.80	111.21	124.40	114.99	112.45	112.31	113.94	109.07	109.73	109.79
2031	112.82	112.24	110.32	114.27	126.75	118.70	114.50	115.61	115.86	111.35	112.66	112.14
2032	114.68	114.08	112.13	116.15	128.84	120,66	116,38	117.51	117.77	113.18	114.51	113.99
2033	117.23	116.62	114.62	118.73	131.70	123.34	118.97	120.13	120.39	115.70	117.06	116.52
2034	119.48	118.86	116.83	121.02	134.24	125.71	121.26	122.44	122.70	117.93	119.31	118.76
2035	121.80	121.16	119.09	123.36	136.83	128.14	123.60	124.80	125.07	120.21	121.62	121.06
2036	123.79	123.14	121.04	125.37	139.07	130.24	125.63	126.85	127.12	122.17	123.61	123.04
2037	126.54	125.88	123.72	128.16	142.16	133.13	128,42	129.66	129.94	124.89	126.35	125.77
2038	128.98	128.31	126.11	130.63	144.90	135.70	130.89	132.17	132.45	127.30	128.79	128.20
2039	131.47	130.79	128.55	133,16	147.70	138.32	133.42	134.72	135.01	129.76	131.28	130.68
2040	133,62	132.93	130.65	135.33	150.12	140.59	135.61	136.92	137.22	131.88	133.43	132.81

### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

	· · · · · · · · · · · · · · · · · · ·				T	ABLE 5b						
				F	Renewabl	e Avoide	d Costs					
			F	Renewab	e Fixed F	rice Opt	ion for W	ind QF				
				0	ff-Peak F	orecast (	\$/MWH)					
										:		
Year	Jan	Feb	Mar	Apr	May	Jun	Jui	Aug	Sep	Oct	Nov	Dec
2015	23.11	16,61	17.11	12.11	14.11	15.36	20.11	22.36	21.86	19.36	21.61	24.61
2016	23.37	22.30	19.63	14.85	12,96	9.74	19.44	24.05	21.82	23.61	24.28	26.42
2017	26,51	25.30	22.28	17.71	15.47	11.67	21.61	26.73	24.26	26.17	26.91	29.27
2018	28.76	27.45	24.19	18.36	16.05	12.12	23.96	29.59	26.87	29.05	29.87	32.48
2019	30.51	29.13	25.68	19.51	17.07	12.91	25.44	31.39	28.51	30.82	31.69	34.45
2020	69.90	70.20	72.03	70.55	66.55	66.83	67.17	68.55	69.61	71.06	70,83	71.35
2021	72,38	71.46	73.47	71.85	68,42	68.48	69.25	69,65	71,02	73.43	70.55	72.57
2022	73.39	73.00	75.65	72.96	69.37	69.81	71.59	70.43	72.38	74.79	71.69	73.90
2023	74.31	74.37	77.14	74.99	69.75	71.14	72.78	72.12	73,65	76.32	72.75	75.41
2024	74.88	74.95	78,67	74.69	70.08	73.31	71.93	72.36	74.14	76.56	75.08	75.82
2025	76.40	76.38	80.32	75,77	69.98	73.64	73.46	74.63	74.76	78.25	77.65	76.92
2026	76.70	77.77	80.63	76,24	70,69	74,66	74.46	75.29	74.47	79.26	77.76	77.82
2027	79.40	79.37	81.54	78.25	70,41	76.03	76.42	75.69	76.16	81.65	78,64	79.25
2028	80.46	81.18	84.14	80.24	69.60	77.74	77.93	76.36	78.00	82.23	79.50	81.79
2029	80.95	81.92	85.69	81.80	63.81	78.01	79.29	77.67	79.47	83,08	81,93	83.20
2030	82.19	83.26	87.44	81.87	63.41	78.62	79.96	80.15	79.93	84.64	83.89	84.92
2031	83.98	85.38	88.57	82.20	64.69	78.26	81,66	81.85	80.02	86.02	85.81	84.92
2032	85.36	86.79	90,02	83,55	65.76	79.54	83.00	83.20	81.33	87,43	87.23	86.32
2033	87.26	88.72	92.03	85.41	67.22	81.32	84.85	85.05	83.15	89.38	89.17	88.24
2034	88.94	90.42	93.80	87.05	68.51	82.88	86.48	86.68	84.74	91.10	90.88	89.94
2035	90,66	92.17	95.61	88.73	69.84	84.48	88,16	88.36	86.38	92.86	92.64	91.68
2036	92.14	93.68	97.17	90.18	70.98	85.86	89.59	89.80	87.79	94.37	94.15	93.17
2037	94.19	95.76	99.33	92.19	72.56	87,77	91.59	91.80	89.75	96.47	96.25	95.25
2038	96.01	97.61	101.25	93.97	73.96	89.46	93.35	93.57	91.48	98.34	98.10	97.08
2039	97.86	99.50	103.21	95.78	75.39	91.19	95.16	95,38	93.25	100.24	100.00	98.96
2040	99.46	101.12	104.89	97.34	76.61	92.68	96.71	96,94	94.77	101.87	101.63	100.57

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

					T.	ABLE 6a			****		•	
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Solar QF											
				0	n-Peak F	orecast	\$/MWH)					
		:						:				·
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33,13	34.73	29.63	27.38	28.88	33.13
2016	31.58	30.16	27.08	25.66	24.96	23.21	32.05	36.41	32.37	31.12	32.12	34.58
2017	34.27	32.71	29,35	28.28	27.50	25.55	34,66	39.41	35.01	33.98	35.07	37.78
2018	36.61	34.95	31.34	29.68	28.86	26.82	37.16	42.26	37,53	36.07	37.24	40.12
2019	38.30	36.56	32.79	31.05	30.19	28.05	38.88	44.22	39.27	37.74	38.96	41.97
2020	93.84	93.82	92.92	93.46	97.24	96.18	95.81	95.67	94.15	93.00	93,99	92.79
2021	95,96	96.23	94,46	95.73	99.08	98.19	97.51	98.11	96.33	95.14	96.67	95.11
2022	98.12	97.97	95.73	97.78	101.29	100.08	99,54	99.50	98.20	97.02	98.70	96,99
2023	100.40	99.89	97.56	100.00	102.89	102.03	101.62	101.18	100.19	98.82	100.84	99,54
2024	101.72	101.90	99.59	101.97	105.18	103.98	103,85	103.54	103.32	100.50	101.68	101.84
2025	104.07	104.45	101.87	104.64	108.71	107.32	106.19	106.35	105.38	102,73	104.11	103.69
2026	106.92	106.53	104.81	107.39	112.65	108.54	108.54	109.02	108.68	105.07	107.23	106.12
2027	109.03	108.51	106.56	109.06	116.12	110.69	110.25	111.96	110.59	107.25	108.78	108.22
2028	111.02	109.79	107.40	111.36	117.90	112.17	113.01	113.02	111.99	109.62	110,89	109.97
2029	113.43	113.15	110.01	114.00	125,82	115.72	115.81	115.81	115.86	111.90	112.86	112.73
2030	115.86	115.51	112.82	116.23	129.42	120,01	117.47	117.33	118.96	114.09	114.75	114.81
2031	117.94	117.36	115,44	119.39	131.87	123.82	119.62	120.73	120.98	116.47	117.78	117.26
2032	119.89	119.29	117.34	121.36	134.05	125.87	121.59	122.72	122.98	118.39	119.72	119.20
2033	122.54	121.93	119.93	124.04	137.01	128.65	124.28	125.44	125.70	121.01	122.37	121.83
2034	124,90	124.28	122.25	126.44	139.66	131.13	126.68	127.86	128.12	123.35	124.73	124.18
2035	127.32	126.68	124.61	128.88	142.35	133.66	129.12	130.32	130.59	125.73	127.14	126.58
2036	129.42	128.77	126.67	131,00	144.70	135.87	131.26	132.48	132.75	127.80	129.24	128.67
2037	132.28	131.62	129.46	133.90	147.90	138.87	134.16	135.40	135.68	130.63	132.09	131.51
2038	134.83	134.16	131,96	136.48	150.75	141.55	136.74	138.02	138.30	133.15	134.64	134.05
2039	137.43	136.75	134.51	139.12	153.66	144,28	139.38	140.68	140.97	135.72	137.24	136.64
2040	139.70	139.01	136.73	141.41	156.20	146.67	141.69	143.00	143,30	137.96	139.51	138.89

on and after September 23, 2015

Effective for service

#### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

TABLE 6b												
Renewable Avoided Costs												
			F	Renewab	e Fixed F	rice Opt	ion for S	olar QF				
				0	ff-Peak F	orecast	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26,88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.21	26.14	23.47	18.69	16.80	13.58	23.28	27.89	25.66	27.45	28.12	30.26
2017	30.42	29.21	26.19	21.62	19.38	15.58	25.52	30.64	28.17	30.08	30.82	33.18
2018	32.75	31.44	28.18	22.35	20.04	16.11	27.95	33.58	30.86	33.04	33.86	36.47
2019	34.58	33.20	29,75	23.58	21.14	16.98	29.51	35.46	32.58	34.89	35.76	38.52
2020	74.05	74.35	76.18	74.70	70.70	70,98	71.32	72.70	73.76	75,21	74.98	75.50
2021	76,61	75.69	77.70	76.08	72.65	72.71	73.48	73.88	75.25	77.66	74.78	76.80
2022	77.70	77,31	79.96	77.27	73.68	74.12	75.90	74.74	76.69	79.10	76.00	78.21
2023	78.70	78.76	81,53	79.38	74.14	75.53	77.17	76.51	78.04	80.71	77.14	79.80
2024	79.35	79.42	83.14	79.16	74.55	77.78	76,40	76.83	78.61	81.03	79,55	80.29
2025	80.96	80.94	84.88	80.33	74.54	78.20	78.02	79.19	79.32	82.81	82,21	81.48
2026	81.35	82.42	85.28	80.89	75.34	79.31	79.11	79.94	79.12	83.91	82.41	82.47
2027	84.14	84.11	86,28	82.99	75.15	80.77	81.16	80.43	80.90	86.39	83.38	83.99
2028	85.29	86.01	88.97	85.07	74.43	82.57	82.76	81.19	82.83	87.06	84.33	86.62
2029	85,87	86.84	90.61	86,72	68.73	82.93	84.21	82.59	84.39	88,00	86.85	88.12
2030	87.21	88.28	92.46	86.89	68.43	83,64	84.98	85,17	84.95	89.66	88,91	89,94
2031	89,10	90.50	93.69	87.32	69.81	83.38	86.78	86,97	85.14	91,14	90.93	90.04
2032	90.57	92.00	95.23	88.76	70,97	84.75	88.21	88,41	86,54	92,64	92.44	91.53
2033	92.57	94.03	97.34	90.72	72.53	86.63	90.16	90,36	88.46	94.69	94.48	93.55
2034	94.36	95,84	99.22	92.47	73.93	88.30	91,90	92.10	90.16	96.52	96.30	95.36
2035	96.18	97.69	101.13	94.25	75.36	90.00	93.68	93.88	91,90	98.38	98.16	97.20
2036	97.77	99.31	102.80	95.81	76.61	91.49	95.22	95.43	93.42	100.00	99.78	98.80
2037	99.93	101.50	105.07	97,93	78,30	93.51	97.33	97.54	95.49	102.21	101,99	100.99
2038	101.86	103.46	107.10	99.82	79.81	95.31	99.20	99.42	97.33	104.19	103.95	102.93
2039	103.82	105.46	109.17	101.74	81.35	97.15	101.12	101.34	99.21	106.20	105,96	104.92
2040	105,54	107.20	110.97	103.42	82.69	98.76	102,79	103.02	100.85	107.95	107.71	106.65

#### SCHEDULE 201 (Continued)

#### WIND INTEGRATION

TABLE 7							
Wind Integration							
Year	Cost						
2015	3.77						
2016	3.84						
2017	3.91						
2018	3.99						
2019	4.07						
2020	4.15						
2021	4.23						
2022	4.31						
2023	4.39						
2024	4.47						
2025	4.56						
2026	4.65						
2027	4.74						
2028	4.83						
2029	4.92						
2030	5.02						
2031	5.12						
2032	5.21						
2033	5.31						
2034	5.42						
2035	5.52						
2036	5.63						
2037	5.74						
2038	5.85						
2039	5.96						
2040	6.08						

## SCHEDULE 201 (Continued)

#### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

#### INSURANCE REQUIREMENTS

The following insurance requirements are applicable to Sellers with a Standard PPA:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment, that economic conditions or claims experience may warrant.
- 2) Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

#### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

#### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

Portland General Electric Company

Sheet No. 201-21

#### SCHEDULE 201 (Continued)

#### INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

## DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10 MW. A Community-Based or Family-Owned QF is exempt from these restrictions.

#### Definition of Community-Based

- a. A community project (or a community sponsored project) must have a recognized and established organization located within the county of the project or within 50 miles of the project that has a genuine role in helping the project be developed and must have some not insignificant continuing role with or interest in the project after it is completed and placed in service.
- b. After excluding the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, the equity (ownership) interests in a community sponsored project must be owned in substantial percentage (80 percent or more) by the following persons (individuals and entities): (i) the sponsoring organization, or its controlled affiliates; (ii) members of the sponsoring organization (if it is a membership organization) or owners of the sponsorship organization (if it is privately owned); (iii) persons who live in the county in which the project is located or who live a county adjoining the county in which the project is located; or (iv) units of local government, charities, or other established nonprofit organizations active either in the county in which the project is located.

#### Definition of Family-Owned

After excluding the ownership interest of the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, five or fewer individuals own 50 percent or more of the equity of the project entity, or fifteen or fewer individuals own 90 percent or more of the project entity. A "look through" rule applies to closely held entities that hold the project entity, so that equity held by LLCs, trusts, estates, corporations, partnerships or other similar entities is considered held by the equity owners of the look through entity. An individual is a natural person. In counting to five or fifteen, spouses or children of an equity owner of the project owner who also have an equity interest are aggregated and counted as a single individual.

Effective for service on and after September 23, 2015

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Portland General Electric Company

Sheet No. 201-22

#### SCHEDULE 201 (Concluded)

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

#### Definition of Person(s) or Affiliated Person(s)

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

#### Definition of Same Site

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

#### Definition of Shared Interconnection and Infrastructure

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

#### OTHER DEFINITIONS

#### Mid-C Index Price

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average

Effective for service on and after September 23, 2015

#### Portland General Electric Company

Sheet No. 201-23

#### SCHEDULE 201 (Continued)

#### OTHER DEFINITIONS (Continued)

On-Peak Power and Average Off-Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

#### Definition of RPS Attributes

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

#### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

#### Definition of Resource Sufficiency Period

This is the period from the current year through 2020.

#### Definition of Resource Deficiency Period

This is the period from 2021 through 2034.

#### Definition of Renewable Resource Sufficiency Period

This is the period from the current year through 2019.

#### Definition of Renewable Resource Deficiency Period

This is the period from 2020 through 2034.

Effective for service on and after September 23, 2015

#### UM 1931 / PGE / 101 Macfarlane / Page 36

#### Portland General Electric Company

Sheet No. 201-24

#### SCHEDULE 201 (Continued)

#### DISPUTE RESOLUTION

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA.

The QF may present disputes to the Commission for resolution using the following process:

The QF may file a complaint asking the Commission to adjudicate disputes regarding the formation of the standard contract. The QF may not file such a complaint during any 15-day period in which the utility has the obligation to respond, but must wait until the 15-day period has passed.

The utility may respond to the complaint within ten days of service.

The Commission will limit its review to the issues identified in the complaint and response, and utilize a process similar to the arbitration process adopted to facilitate the execution of interconnection agreements among telecommunications carriers. See OAR 860, Division 016. The administrative law judge will not act as an arbitrator.

#### SPECIAL CONDITIONS

- Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

#### TERM OF AGREEMENT

Not less than one year and not to exceed 20 years.

Effective for service on and after September 23, 2015

## UM 1931 PGE Exhibit 102

PGE's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584



Pamela Grace Lesh Vice President Regulatory Affairs & Strategic Planning

July 12, 2005

Public Utility Commission of Oregon Attn: Filing Center 550 Capitol Street, N.E., Suite 215 P.O. Box 2148 Salem, OR 97308-2148

RE: Advice No. 05-10, Compliance Filing

UM-1129 Power Purchases from Qualifying Facilities

In addition to the electronic filing, enclosed is the original, with a requested effective date of **August 11, 2005**:

Ninth Revision of Sheet No. 1-3	Original Sheet No. 201-9
First Revision of Sheet No. 201-1	Original Sheet No. 201-10
Fifth Revision of Sheet No. 201-2	Original Sheet No. 201-11
Second Revision of Sheet No. 201-3	Original Sheet No. 201-12
Original Sheet No. 201-4	Original Sheet No. 201-13
Original Sheet No. 201-5	Original Sheet No. 201-14
Original Sheet No. 201-6	Original Sheet No. 201-15
Original Sheet No. 201-7	Original Sheet No. 201-16
Original Sheet No. 201-8	First Revision of Sheet No. 203-2

This filing is made in compliance to Commission Order No. 05-584 which concluded Phase I of an investigation into electric utility purchases from Qualifying Facilities, (QF) docketed as UM-1129.

This filing also serves to update the Company's Avoided Costs. Federal regulations require the Company to "provide to its State regulatory authority, and. . . maintain for public inspection . . . the estimated avoided cost on the electric company's system" [18 Code of Federal Regulations (CFR) Part 292.302] at least every two-years. Although ORS 757.612 exempts the Company from the biannual-Avoided Cost filing requirement under ORS 757.525, page 29 of Order 05-584 "affirm(s) the continued use of a two-year filing cycle for Avoided Cost rates."

Schedule 201, as revised, describes the process by which an owner of a QF enters into a standard contract or a negotiated contract. Contact information is provided in the tariff. The Standard Contract pricing options are explained and the components of the pricing options, including a 20 year forecast of Avoided Costs, are also included.

PGE Advice No. 05-10 Page 2

Schedule 203, Net Metering Service, references the pricing in Schedule 201. Thus, Schedule 203 is also revised to accommodate the pricing changes.

A Standard Contract Power Purchase Agreement is provided as Appendix 1 to Schedule 201. Each actual contract, however, will vary to some extent based on choices such as term limit and monthly rate.

Work papers detailing the Avoided Cost calculations are attached.

Should you have any questions or comments regarding this filing, please contact Ted Drennan at (503) 464-7634.

Please direct all formal correspondence and requests to the following email address pge.opuc.filings@pgn.com

Sincerely,

/s/ Pamela G. Lesh Vice President, Regulatory Affairs & Strategic Planning Ninth Revision of Sheet No. 1-3 Canceling Eight Revision of Sheet No. 1-3

# PORTLAND GENERAL ELECTRIC COMPANY TABLE OF CONTENTS RATE SCHEDULES

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Meter Information Services

## Portland General Electric Company P.U.C. Oregon No. E-17

First Revision of Sheet No. 201-1 Canceling Original Sheet No. 201-1

# SCHEDULE 201 QUALIFYING FACILITY POWER PURCHASE INFORMATION

(T)

(N)

To provide information about Avoided Costs, Standard Contracts and negotiated Power Purchase Agreements, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company.

(N)

#### **AVAILABLE**

**PURPOSE** 

In all territory served by the Company.

#### **APPLICABLE**

Applicable to Sellers of generation from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, the energy is delivered to the Company's system and made available for Company purchase, and the Seller meets all requirements herein described including establishing credit, providing proof of insurance, executing an interconnection agreement, a transmission agreement and a Power Purchase Agreement, where applicable.

(C)

(C) (D) (N)

#### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard Contract Power Purchase Agreement (Standard Contract) as discussed below, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security as deemed sufficient by the Company as set out in the Standard Contract.

#### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

(N)

(M)

(M)

(D) (N)

## **POWER PURCHASE AGREEMENT**

In accordance with terms set out in this schedule and the Commission's Rules as applicable, the Company shall purchase any energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a Power Purchase Agreement with the Company prior to delivery of power to the Company. The agreement shall have a term of up to 20 years as selected by the QF.

A Seller whose QF has a nameplate capacity rating of 10 mW or less may elect the Standard Contract option.

Any Seller may elect to negotiate a Power Purchase Agreement with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC) and the Commission. Negotiations for power purchase pricing shall be based on the filed Avoided Costs in effect at that time. Filed Avoided Costs may be modified in negotiated Power Purchase Agreements by factors described in 18 CFR 292.304(e), Factors Affecting Rates for Purchases, which may be referenced through <a href="https://www.gpoaccess.gov/cfr/index.html">www.gpoaccess.gov/cfr/index.html</a>.

#### STANDARD CONTRACT (Nameplate capacity of 10 mW or less)

A Seller choosing a Standard Contract shall complete all informational and price option selection requirements in the agreement (Appendix 1) and submit the executed agreement to the Company prior to service under this schedule.

#### **BASIS FOR POWER PURCHASE PRICE**

#### AVOIDED COST SUMMARY

The power purchase rates are based on the Company's Avoided Costs. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

(N)

**Portland General Electric Company** P.U.C. Oregon No. E-17

Second Revision of Sheet No. 201-3 Canceling First Revision of Sheet No. 201-3

## **SCHEDULE 201 (Continued)**

**(T)** (D) (M)

(N)

BASIS FOR POWER PURCHASE PRICE (Continued) AVOIDED COST SUMMARY (Continued)

(N)

The Avoided Costs as listed in Tables 1 and 2 below include monthly On- and Off-Peak prices.

**ON-PEAK PERIOD** 

(M)

The On-Peak period is 6 a.m. until 10 p.m., Monday through Saturday.

**OFF-PEAK PERIOD** 

The Off-Peak period is 10 p.m. until 6 a.m., Monday through Saturday, and all

(M)

24 hours on Sunday.

(D) (N)

Avoided Costs are based on forward market price estimates through December 2008, the period of time during which the Company's Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the period 2009 through 2025, the Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of energy plus capitalized energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

The CCCT Avoided Cost estimates beginning in 2009 include the avoidable power supply costs assumed to be represented by new generating capacity consistent with the Company's Integrated Resource Plan's Final Action Plan Acknowledged in Commission Order No. 04-375.

(N)

(M)

#### PRICING OPTIONS FOR STANDARD CONTRACTS

Pricing options represent the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery within the Company's Service Territory pursuant to a Standard Contract up to the nameplate rating of the QF in any hour. Any energy delivered in excess of the nameplate rating shall be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard Contract pricing shall be based on the Avoided Cost in effect at the time the agreement is executed.

Four pricing options are available for Standard Contracts. The pricing options include one Fixed Rate Option and three Market Based Options.

## 1) Fixed Price Option

The Fixed Price Option is based on Avoided Costs including forecasted natural gas prices.

This option is available for a maximum term of 15 years. Sellers with contracts exceeding 15 years will make a one time election at execution to select a market-based option for all years up to five in excess of the initial 15. Under the Fixed Price Option, prices will be as established at the time the Standard Contract is executed and shall be equal to the Avoided Costs in Tables 1 and 2 effective at execution for a term of up to 15 years.

## PRICING OPTIONS FOR STANDARD CONTRACTS (Continued) FIXED PRICE OPTION (Continued)

	TABLE 1											
	Avoided Costs											
	Fixed Price Option											
	On-Peak Forecast (\$/MWH)											
	Month  Year Jon Fob Mor Apr Moy Jun Jul Aug Son Oct Noy Doo											
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67.97	66.95	64.20	69.29	74.39
2006	77.96	74.39	69.29	59.10	49.42	50.44	69.04	75.92	72.40	69.04	71.08	74.13
2007	76.43	72.86	67.77	57.58	47.90	48.91	68.02	74.90	71.38	68.02	70.06	73.12
2008	74.90	71.33	66.23	56.04	46.36	47.38	66.49	73.37	69.85	66.49	68.53	71.58
2009	64.40	64.36	63.78	59.56	59.02	59.18	59.33	59.47	59.40	59.50	60.84	62.17
2010	60.39	60.33	59.78	56.25	55.77	55.90	56.03	56.14	56.10	56.19	57.41	58.58
2011	66.34	66.28	65.62	61.46	60.89	61.04	61.20	61.33	61.28	61.38	62.82	64.20
2012	69.28	69.21	68.51	64.09	63.48	63.65	63.81	63.95	63.90	64.01	65.54	67.01
2013	75.03	74.95	74.16	69.13	68.45	68.63	68.82	68.97	68.92	69.04	70.78	72.45
2014	80.36	80.28	79.40	73.82	73.06	73.26	73.47	73.64	73.59	73.72	75.65	77.50
2015	81.36	81.27	80.40	74.80	74.04	74.24	74.45	74.62	74.56	74.70	76.63	78.49
2016	73.15	73.08	72.37	67.88	67.27	67.43	67.60	67.74	67.69	67.80	69.35	70.85
2017	77.09	77.01	76.25	71.42	70.76	70.93	71.11	71.26	71.21	71.33	73.00	74.61
2018	84.84	84.75	83.86	78.17	77.40	77.61	77.81	77.99	77.93	78.07	80.04	81.92
2019	92.90	92.79	91.76	85.21	84.31	84.55	84.79	85.00	84.93	85.09	87.35	89.53
2020	98.17	98.06	96.94	89.85	88.88	89.14	89.40	89.62	89.55	89.72	92.17	94.53
2021	100.74	100.63	99.48	92.21	91.22	91.48	91.75	91.98	91.90	92.08	94.59	97.01
2022	103.25	103.14	101.97	94.51	93.49	93.77	94.04	94.27	94.20	94.38	96.95	99.43
2023	105.95	105.83	104.63	96.98	95.94	96.22	96.50	96.74	96.66	96.85	99.49	102.03
2024	108.35	108.23	106.99	99.16	98.09	98.38	98.67	98.91	98.83	99.02	101.73	104.33
2025	111.18	111.06	109.80	101.77	100.67	100.97	101.26	101.51	101.43	101.62	104.40	107.06

## PRICING OPTIONS FOR STANDARD CONTRACTS (Continued) FIXED PRICE OPTION (Continued)

	TABLE 2											
	Avoided Costs											
	Fixed Price Option											
				<u>O1</u>	f-Peak	Forecas	t (\$/MW	<u>H)</u>				
<u>Month</u>												
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	56.76	55.74	54.01	58.59	64.45
2006	65.98	62.93	59.87	49.93	42.29	39.23	58.59	61.14	59.61	57.58	59.61	63.18
2007	63.43	60.38	57.32	47.90	40.25	37.20	57.83	60.38	58.85	56.81	58.85	62.42
2008	61.90	58.85	55.79	46.36	38.72	35.66	56.30	58.85	57.32	55.28	57.32	60.88
2009	38.83	38.79	38.21	33.98	33.44	33.61	33.75	33.90	33.83	33.92	35.27	36.59
2010	34.18	34.12	33.57	30.03	29.55	29.68	29.81	29.92	29.89	29.97	31.19	32.36
2011	39.47	39.41	38.75	34.59	34.02	34.17	34.33	34.46	34.41	34.51	35.95	37.34
2012	41.74	41.67	40.97	36.55	35.94	36.10	36.27	36.41	36.36	36.47	38.00	39.47
2013	46.80	46.72	45.93	40.90	40.22	40.40	40.59	40.74	40.69	40.81	42.55	44.22
2014	51.43	51.34	50.46	44.88	44.12	44.33	44.53	44.71	44.65	44.78	46.71	48.57
2015	51.70	51.62	50.74	45.14	44.38	44.58	44.79	44.96	44.91	45.04	46.97	48.83
2016	42.85	42.78	42.07	37.58	36.97	37.13	37.30	37.44	37.39	37.50	39.05	40.54
2017	45.83	45.75	44.99	40.16	39.50	39.67	39.85	40.00	39.95	40.07	41.74	43.35
2018	52.90	52.81	51.92	46.23	45.46	45.67	45.88	46.05	45.99	46.13	48.10	49.98
2019	60.16	60.06	59.03	52.47	51.58	51.82	52.06	52.26	52.19	52.35	54.62	56.79
2020	64.72	64.61	63.50	56.40	55.43	55.69	55.95	56.17	56.10	56.27	58.72	61.08
2021	66.34	66.23	65.09	57.81	56.82	57.09	57.35	57.58	57.51	57.68	60.20	62.61
2022	68.00	67.88	66.71	59.25	58.24	58.51	58.79	59.02	58.94	59.12	61.70	64.17
2023	69.70	69.58	68.38	60.73	59.69	59.97	60.25	60.49	60.41	60.60	63.24	65.77
2024	71.43	71.30	70.07	62.24	61.17	61.46	61.75	61.99	61.91	62.10	64.81	67.41
2025	73.22	73.09	71.83	63.80	62.71	63.00	63.30	63.55	63.46	63.66	66.43	69.10

Under the Fixed Price Option, the Company shall pay Seller the Off-Peak Avoided Cost pursuant to Table 1 for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to the provisions of Section 4.3 of the Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases shall be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

#### **MARKET BASED PRICE OPTIONS:**

Market Based Price Options include Option 2, Deadband Index Gas Price; Option 3, Index Gas Price; and Option 4, Dow Jones Mid-Columbia Daily On- and Off-Peak Electricity Firm Price Index (DJ-Mid-C Firm Index). The price components for pricing Options 2 and 3 are defined as follows:

On Peak Price: P<sub>Peak</sub>

Off Peak Price: P<sub>Off</sub>

Variable Operating and Maintenance,

Fixed Costs, and Gas Transportation (Table 6): VFG

Capacity Value (Table 7):

Heat Rate: HR = 6,776 BTU/kWh

Losses: 1.9%

Forecasted Gas Price (Table 5): GP<sub>F</sub>

First of Month\* Northwest Pipeline Corp. Canadian Border Index as Reported in Platts

Inside FERC's Gas Market Report GP<sub>Sumas</sub>

First of Month\* one-month spot price averages for AECO/NIT transactions as Reported in

Canadian Gas Price Reporter

Natural Gas Market Report (in US dollars): GP<sub>AECO</sub>

Monthly Indexed Gas Price:  $GP_{MI} = (GP_{Sumas} + GP_{AECO})/2$ 

Deadband Gas Index: GP<sub>DB</sub>

Where:

If GP<sub>MI</sub>>GP<sub>F</sub>

 $GP_{DB} = Minimum of (GP_{MI} or 1.1*GP_F)$ 

Otherwise

 $GP_{DB} = Maximum of (GP_{MI} or .9*GP_F)$ 

<sup>\* &</sup>quot;First of Month" means the first such monthly issuance.

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

MARKET BASED PRICE OPTIONS (Continued)

Tables 3 and 4 below list applicable rates for Options 2 (Deadband Index Gas Price Option) and 3 (Index Gas Price Option) for the period through 2008. The monthly On- and Off-Peak prices will be applied for all Market Based Price Options.

	TABLE 3											
	On-Peak Resource Sufficiency Rate (\$/MWH)											
	Month											
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	May	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67.97	66.95	64.20	69.29	74.39
2006	77.96	74.39	69.29	59.10	49.42	50.44	69.04	75.92	72.40	69.04	71.08	74.13
2007	76.43	72.86	67.77	57.58	47.90	48.91	68.02	74.90	71.38	68.02	70.06	73.12
2008	74.90	71.33	66.23	56.04	46.36	47.38	66.49	73.37	69.85	66.49	68.53	71.58

	TABLE 4											
	Off-Peak Resource Sufficiency Rate (\$/MWH)											
						Month						
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	May	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	56.76	55.74	54.01	58.59	64.45
2006	65.98	62.93	59.87	49.93	42.29	39.23	58.59	61.14	59.61	57.58	59.61	63.18
2007	63.43	60.38	57.32	47.90	40.25	37.20	57.83	60.38	58.85	56.81	58.85	62.42
2008	61.90	58.85	55.79	46.36	38.72	35.66	56.30	58.85	57.32	55.28	57.32	60.88

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

MARKET BASED PRICE OPTIONS (Continued)

## 2) Deadband Index Gas Price Option

The Deadband Index Gas Price Option bases the fuel price component of the energy rate on comparisons between the Forecast Gas Price (Table 5) and the simple average of the First of Month gas indices for Sumas and AECO trading hubs. The Northwest Pipeline Gas Index (Sumas) will be as reported in <u>Platts Inside FERC's Gas Market Report</u>. The AECO/NIT (AECO) Gas Index will be as reported in <u>Canadian Gas Price Reporter Natural Gas Market Report</u> (in US dollars). The fuel price component used will be bound between 90 percent and 110 percent of the natural gas price forecast but based on the then current gas price.

The price paid per MWh will be:

 $P_{Peak}$  =  $GP_{DB}*HR/1,000/(1-Losses) + VFG + C$  $P_{Off}$  =  $GP_{DB}*HR/1,000/(1-Losses) + VFG$ 

Under the Deadband method, the Company shall pay Seller the Off-Peak prices for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to the provisions of Section 4.3 of the Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases shall be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

MARKET BASED PRICE OPTIONS (Continued)

## 3) Index Gas Price Option

The Index Gas Price Option is the simple average of the First of Month gas indices for Sumas and AECO trading hubs uses in establishing the Avoided Costs. The Sumas Gas Index will be as reported in <a href="Platts Inside FERC's Gas Market Report">Platts Inside FERC's Gas Market Report</a>. The AECO Gas Index will be as reported in the <a href="Canadian Gas Price Reporter Natural Gas Market Report">Canadian Gas Price Reporter Natural Gas Market Report</a> (in US dollars).

The price paid per MWh will be:

 $P_{Peak}$  =  $GP_{MI}*HR/1,000/(1-Losses) +VFG +C$  $P_{Off}$  =  $GP_{MI}*HR/1,000/(1-Losses) +VFG$ 

Under the Index Gas Price, the Company shall pay Seller the Off-Peak Prices for: (a) for all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to the provisions of Section 4.3 of the Standard Contract; (d) for Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases shall be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

#### 4) Mid C Index Price Option

Under this option, prices paid per MWh will be based on the DJ-Mid-C Firm Index plus 0.204 ¢ per kWh for wholesale wheeling.

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
MARKET BASED PRICE OPTIONS (Continued)

The tables below contain the pricing components for Option 1 (Fixed Price Option) Option 2 (Deadband Index Gas Price Option) and Option 3 (Index Gas Price Option).

	TABLE 5											
	Forecasted Gas Price - GP <sub>F</sub> (\$/MMBTU)											
	<u>Month</u>											
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	May	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>
2009	4.778	4.772	4.689	4.088	4.011	4.035	4.056	4.076	4.066	4.079	4.271	4.459
2010	4.097	4.089	4.011	3.508	3.440	3.458	3.476	3.492	3.487	3.499	3.673	3.840
2011	4.832	4.823	4.730	4.137	4.057	4.078	4.100	4.119	4.112	4.127	4.332	4.528
2012	5.136	5.126	5.027	4.398	4.312	4.335	4.358	4.378	4.371	4.386	4.604	4.813
2013	5.836	5.825	5.713	4.997	4.900	4.926	4.952	4.974	4.967	4.984	5.232	5.469
2014	6.475	6.462	6.337	5.543	5.435	5.464	5.494	5.518	5.510	5.529	5.804	6.067
2015	6.493	6.481	6.356	5.559	5.451	5.480	5.509	5.534	5.526	5.545	5.820	6.085
2016	5.213	5.203	5.103	4.463	4.376	4.400	4.423	4.443	4.436	4.452	4.673	4.885
2017	5.615	5.604	5.496	4.807	4.713	4.739	4.764	4.785	4.778	4.795	5.033	5.261
2018	6.599	6.586	6.459	5.650	5.540	5.569	5.599	5.624	5.616	5.635	5.915	6.184
2019	7.608	7.594	7.447	6.514	6.387	6.421	6.456	6.485	6.475	6.498	6.820	7.130
2020	8.236	8.220	8.061	7.051	6.914	6.951	6.988	7.019	7.009	7.033	7.382	7.717
2021	8.441	8.425	8.263	7.227	7.086	7.124	7.162	7.195	7.184	7.209	7.567	7.910
2022	8.653	8.636	8.469	7.408	7.264	7.302	7.341	7.375	7.364	7.389	7.756	8.108
2023	8.869	8.852	8.681	7.593	7.445	7.485	7.525	7.559	7.548	7.574	7.950	8.311
2024	9.091	9.073	8.898	7.783	7.631	7.672	7.713	7.748	7.736	7.763	8.148	8.519
2025	9.318	9.300	9.120	7.978	7.822	7.864	7.906	7.942	7.930	7.957	8.352	8.731

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

MARKET BASED PRICE OPTIONS (Continued)

Table 6 contains the Variable O&M and Fixed Costs that are derived from a natural gas-fired CCCT as identified in the Company's 2004 Integrated Resource Plan.

	TABLE 6											
	Variable O &M, Fixed Costs and Gas Transportation Forecast – VFG (\$/MWH)											
<u>Month</u>												
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
2009	5.83	5.83	5.82	5.75	5.74	5.74	5.74	5.74	5.74	5.74	5.77	5.79
2010	5.87	5.87	5.86	5.80	5.80	5.80	5.80	5.80	5.80	5.80	5.82	5.84
2011	6.09	6.09	6.08	6.01	6.00	6.00	6.01	6.01	6.01	6.01	6.03	6.06
2012	6.26	6.26	6.25	6.17	6.16	6.16	6.17	6.17	6.17	6.17	6.20	6.22
2013	6.49	6.49	6.47	6.39	6.38	6.38	6.38	6.38	6.38	6.39	6.42	6.44
2014	6.71	6.70	6.69	6.59	6.58	6.58	6.59	6.59	6.59	6.59	6.63	6.66
2015	6.85	6.85	6.84	6.74	6.73	6.73	6.73	6.74	6.74	6.74	6.77	6.80
2016	6.84	6.84	6.83	6.75	6.74	6.74	6.74	6.75	6.75	6.75	6.77	6.80
2017	7.05	7.05	7.03	6.95	6.94	6.94	6.95	6.95	6.95	6.95	6.98	7.01
2018	7.32	7.32	7.31	7.21	7.20	7.20	7.20	7.21	7.20	7.21	7.24	7.27
2019	7.61	7.60	7.59	7.47	7.46	7.46	7.47	7.47	7.47	7.47	7.51	7.55
2020	7.84	7.83	7.82	7.69	7.68	7.68	7.69	7.69	7.69	7.69	7.73	7.77
2021	8.04	8.04	8.02	7.89	7.87	7.88	7.88	7.89	7.89	7.89	7.93	7.97
2022	8.24	8.23	8.21	8.09	8.07	8.07	8.08	8.08	8.08	8.08	8.13	8.17
2023	8.44	8.44	8.42	8.28	8.27	8.27	8.28	8.28	8.28	8.28	8.33	8.37
2024	8.64	8.63	8.61	8.48	8.46	8.47	8.47	8.47	8.47	8.48	8.52	8.57
2025	8.86	8.86	8.83	8.70	8.68	8.68	8.69	8.69	8.69	8.69	8.74	8.79

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

MARKET BASED PRICE OPTIONS (Continued)

Table 7 represents the variable C in the formulas for the Option 2 (Deadband Index Gas Price Option) and Option 3 (Index Gas Price Option).

						TABLE 7	7					
	Capacity Value - C (\$/MWH)											
	<u>Month</u>											
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>
2009	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57
2010	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21
2011	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87
2012	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54
2013	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23
2014	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94
2015	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66
2016	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30
2017	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26
2018	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94
2019	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74
2020	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45
2021	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39
2022	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25
2023	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25
2024	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92
2025	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97

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## **SCHEDULE 201 (Continued)**

## **MONTHLY SERVICE CHARGE**

(M) | | (M)

Each separately metered QF not associated with a retail Consumer account shall be charged \$10.00 per month.

#### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard Contract:

QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount shall be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment economic conditions or claims experience may warrant.

Such insurance shall include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies shall not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller shall furnish the Company with certificates of insurance together with the endorsements required herein. The Company shall have the right to inspect the original policies of such insurance.

QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

#### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's Service Territory, the Seller is responsible for wheeling power at its cost to PGE's Service Territory.

#### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in an interconnection agreement between the Company and Seller, if the QF is located within the Company's Service Territory, switching equipment capable of isolating the QF from the Company's system shall be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established in Rule C or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff, as applicable. The Seller shall bear full responsibility for the installation and safe operation of the interconnection facilities.

The Seller may be required to execute a generation interconnection agreement.

#### **SPECIAL CONDITIONS**

Under negotiated agreements, Seller shall execute a written Power Purchase Agreement with the Company. The contract shall outline specific requirements including but not limited to the term of the agreement, nameplate capacity of the QF, the amount of power the QF agrees to sell, the Pricing Option chosen by the Seller, the default security requirements, the insurance requirements, and the means by which the QF owner established credit with the Company.

Delivery of energy by Seller shall be at a voltage, phase, frequency, and power factor as specified by the Company.

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## SCHEDULE 201 (Concluded)

## SPECIAL CONDITIONS (Continued)

If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Consumer, any net credit over \$10.00 will be paid by check to the Consumer.

(T)(M) | | (T)(M)

Contracts entered into pursuant to this schedule will not terminate prior to the Power Purchase Agreement's termination date if the 1978 Public Utility Regulatory Policies act (PURPA) is repealed.

#### **TERM OF AGREEMENT**

Not less than one year and not to exceed 20 years.

# (M) (C)

(M)

#### **RULES AND REGULATIONS**

Service and rates under this schedule are subject to all applicable General Rules and Regulations contained in the Tariff of which this schedule is a part.

#### STANDARD CONTRACT POWER PURCHASE AGREEMENT

THIS AGREEMENT, entered into this day, 200, is between ("Seller") and Portland General Electric Company ("PGE") (hereinafter each a "Party" or collectively, "Parties").
RECITALS
Seller intends to construct, own, operate and maintain a facility for the generation of electric power located in County with a Nameplate Capacity Rating of kilowate ("kW"), as further described in Exhibit B ("Facility"); and
Seller intends to operate the Facility as a "Qualifying Facility," as such term is defined in Section 3.1.3, below.
Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.14, below, from the Facility in accordance with the terms and conditions of this Agreement.

#### <u>AGREEMENT</u>

NOW, THEREFORE, the Parties mutually agree as follows:

## **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit B provided by Seller in accordance with Section 4.4 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Billing Period" means a period between PGE's readings of its power purchase billing meter at the Facility in the normal course of PGE's business. Such periods typically vary and may not coincide with calendar months.
- 1.3. "Capacity Value" has the meaning provided for in the Tariff (as defined below).
- 1.4. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable which shall require, among other things, that all of the following events have occurred:

- 1.4.1. PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in amounts required by this Agreement and in accordance with all other terms and conditions of this Agreement (certifications required under this Section 1.4 can be provided by one or more LPEs);
- 1.4.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.22;
- 1.4.3. After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the operation of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.4.4. PGE has received a certificate addressed to PGE from an LPE stating that, in accordance with the Generation Interconnection Agreement, all required interconnection facilities have been constructed, all required interconnection tests have been completed and the Facility is physically interconnected with PGE's electric system;
- 1.4.5. PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.4.6. Notwithstanding the foregoing, Sellers with projects delivering Net Output to PGE prior to the Effective Date and with less than 100 Kw Nameplate Capacity shall be deemed to have established a Commercial Operation date identical to the Effective Date.
- 1.5. "Contract Price" means the applicable price for Net Output as stated in Sections 5.1, 5.2, 5.3 and 5.4.
- 1.6. "Contract Year" means each twelve (12)- month period commencing at 00:00 hours on January 1 and ending on 24:00 hours on December 31 falling at least partially in the Term of this Agreement.
  - 1.7. "Effective Date" has the meaning set forth in Section 2.1.
  - 1.8. "Facility" has the meaning set forth in the Recitals.

- 1.9. "Generation Interconnection Agreement" means the generation interconnection agreement to be entered into separately between Seller and PGE, providing for the construction, operation, and maintenance of PGE's interconnection facilities required to accommodate deliveries of Seller's Net Output.
- 1.10. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.11. "Lost Energy Value" means for a Contract Year: zero, unless the Net Output is less than Minimum Net Output and the mean Dow Jones Mid C Index Price is greater than the Contract Price, in which case Lost Energy Value equals: (Minimum Net Output Net Output) X (Mean Dow Jones Mid C Index Price Mean Contract Price). If PGE is in a Resource Sufficient Position as defined in the Tariff for a Contract Year, Lost Energy Value is deemed to be zero for that Contract Year.
- 1.12. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.13. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.14. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses and other adjustments, if any.
  - 1.15. "Off-Peak Hours" has the meaning provided in the Tariff.
  - 1.16. "On-Peak Hours" has the meaning provided in the Tariff.
- 1.17. "Point of Delivery" means the high side of the generation step-up transformer(s) located at the point of interconnection between the Facility and PGE's distribution or transmission system, as specified in the Generation Interconnection Agreement.

- 1.18. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.19. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.20. "Recoupment Value" means, on a date during a Contract Year, the On-Peak Net Output generated and delivered from the Facility to the Point of Delivery during such Contract Year up to and including such date multiplied by the applicable Capacity Value.
- 1.21. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, and maintenance of the Facility including without limitation those set forth in Exhibit C.
- 1.22. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit D.
- 1.23. "Tariff" shall mean PGE rate Schedule 201 filed with the Oregon Public Utilites Commission in effect on the Effective Date of this Agreement and attached hereto as Exhibit E.
- 1.24. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.25. "Test Period" shall mean a period of 60 days or a commercially reasonable period determined by the Seller.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

## SECTION 2: TERM; COMMERCIAL OPERATION DATE

2.1 This Agreement shall become effective upon execution by both Parties ("Effective Date").
2.2 Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
2.2.1 By [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
2.2.2 By [date to be determined by the Seller] Seller shall have completed all requirements under Section 1.3 and shall have established the Commercial Operation Date.
2.3 This Agreement shall terminate on, [date to be chosen by Seller], 20 years from the Effective Date, or the date the Agreement is terminated in accordance with Section 10 or 12.2, whichever is earlier ("Termination Date").
SECTION 3: REPRESENTATIONS AND WARRANTIES
3.1 Seller represents, covenants, and warrants to PGE that:
3.1.1 Seller is a duly organized under the laws of
3.1.2 The execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
3.1.3 The Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
3.1.4 Seller has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this agreement current on all of its financial obligations.

- 3.1.5 During the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility.
- 3.1.6 Seller will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7 The Facility has a Nameplate Capacity rating not greater than 10,000 kW.
  - 3.1.8 Net Dependable Capacity of the Facility is kW.
- 3.1.9 Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is \_\_\_\_\_ kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10 Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_kWh of Net Output during each Contract Year ("Maximum Net Output").

#### SECTION 4: DELIVERY OF POWER

- 4.1 Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
- 4.2 Provided Seller has elected the Contract Price options in Section 5.1, 5.2, or 5.3, Seller shall make available from the Facility either a) a minimum of seventy-five percent (75%) of its average annual Net Output or b) the Alternative Minimum Amount as defined in Exhibit A during each Contract Year (hereinafter "Minimum Net Output"), provided that such Minimum Net Output for the first or last Contract Year during which Commercial Operations begins shall be reduced pro rata to reflect the Commercial Operation Date, and further provided that such Minimum Net Output shall be reduced on a pro-rata basis for any periods during a Contract Year that the Facility was prevented from generating electricity for reasons of Force Majeure. All deliveries of Net Output are subject to the Contract Price.

- 4.3 Provided Seller has elected the Contract Price options in Section 5.1, 5.2, or 5.3, Seller agrees that if Seller does not deliver the Minimum Net Output each Contract Year, PGE will suffer losses equal to the Lost Energy Value. As damages for Seller's failure to deliver the Minimum Net Output (subject to adjustment for reasons of Force Majeure as provided in Section 4.2) in any Contract Year, notwithstanding any other provision of this Agreement the purchase price payable by PGE for all deliveries in the Contract Year following the year in which Seller failed to deliver such Minimum Net Output shall be the Off-Peak Price of the applicable Contract Price option until Recoupment Value equals Lost Energy Value. If during such succeeding Contract Year Seller succeeds in delivering the Minimum Net Output for that Contract Year, then the purchase price payable by PGE for all deliveries in such Contract Year occurring after the Billing Period in which Seller first succeeds in delivering the Minimum Net Output for such Contract Year will be as set forth in Section 5.1, 5.2, or 5.3, as applicable.
- 4.4 Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit B or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.10 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with the written consent of PGE.
- 4.5 To the extent not otherwise provided in the Generation Interconnection Agreement, all costs associated with the modifications to PGE's interconnection facilities or electric system occasioned by or related to the interconnection of the Facility with PGE's system, or any increase in generating capability of the Facility, or any increase of delivery of Net Dependable Capacity from the Facility, shall be borne by Seller.

#### **SECTION 5: CONTRACT PRICE**

PGE shall pay Seller for the price options 5.1, 5.2, 5.3 or 5.4, as selected below, pursuant to the Tariff. Seller shall indicate which price option it chooses by marking its choice below with an X. If Seller chooses the option in Section 5.1, it must mark below a single second option from Section 5.2, 5.3, or 5.4 for all Contract Years in excess of 15 until the remainder of the Term. Except as provided herein, Sellers selection is for the Term and shall not be changed during the Term.

5.1	Fixed Price.
5.2	Deadband Index Gas Price.
5.3	Index Gas Price.
5.4	Mid-C Index Rate Price.

#### SECTION 6: OPERATION AND CONTROL

- 6.1 Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection between the Facility and PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's non-compliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 6.2 Seller agrees to provide 60 days written advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such shutdown has occurred or will occur and the anticipated duration of such shutdown. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

## SECTION 7: CREDITWORTHINESS

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: senior lien, step in rights, a cash escrow or line of credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Minimum Net Output / 8760).

#### **SECTION 8: METERING**

8.1 PGE shall design, furnish, install, own, inspect, test, maintain and replace all metering equipment at Seller's cost and as required pursuant to the Generation Interconnection Agreement.

- 8.2 Metering shall be performed at the location and in a manner consistent with this Agreement and as specified in the Generation Interconnection Agreement. All Net Output purchased hereunder shall be adjusted to account for electrical losses, if any, between the point of metering and the Point of Delivery, so that the purchased amount reflects the net amount of power flowing into PGE's system at the Point of Delivery.
- 8.3 PGE shall periodically inspect, test, repair and replace the metering equipment as provided in the Generation Interconnection Agreement. If any of the inspections or tests disclose an error exceeding two percent (2%) of the actual energy delivery, either fast or slow, proper correction, based upon the inaccuracy found, shall be made of previous readings for the actual period during which the metering equipment rendered inaccurate measurements if that period can be ascertained. If the actual period cannot be ascertained, the proper correction shall be made to the measurements taken during the time the metering equipment was in service since last tested, but not exceeding three (3) months, in the amount the metering equipment shall have been shown to be in error by such test. Any correction in billings or payments resulting from a correction in the meter records shall be made in the next monthly billing or payment rendered. Such correction, when made, shall constitute full adjustment of any claim between Seller and PGE arising out of such inaccuracy of metering equipment.
- 8.4 To the extent not otherwise provided in the Generation Interconnection Agreement, all PGE's costs relating to all metering equipment installed to accommodate Seller's Facility shall be borne by Seller.

## SECTION 9: BILLINGS, COMPUTATIONS AND PAYMENTS

- 9.1 On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement, the Generation Interconnection Agreement, and any other agreement related to the Facility between the Parties or otherwise.
- 9.2 Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

#### SECTION 10: DEFAULT, REMEDIES AND TERMINATION

- 10.1 In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults by Seller under this Agreement:
  - 10.1.1 Seller's failure to meet the requirements as provided in Section 2.2.

- 10.1.2 Breach by Seller of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 10.1.3 Seller's failure to provide default security, if required by Section 7, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 10.1.4 Seller's failure to deliver the Minimum Net Output for two consecutive Contract Years.
- 10.1.5 If Seller modifies the Facility such that the Nameplate Capacity Rating exceeds 10,000 kW.
  - 10.1.6 If Seller is no longer a "Qualifying Facility".
- 10.2 In the event of a default hereunder, PGE may immediately terminate this Agreement at its sole discretion by delivering written notice to Seller and may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. Such termination shall be effective upon the date of delivery of notice, as provided in Section 21.1. The rights provided in this Section 10 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 10.3 If this Agreement is terminated by PGE as provided in this Section, PGE shall make all payments, within 30 days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of Seller's receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 10.4 In the event PGE terminates this Agreement pursuant to this Section 10, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 10.5 Sections 10.1, 10.3, 10.4, 11, and 20.2 shall survive termination of this Agreement.

#### SECTION 11: INDEMNIFICATION AND LIABILITY

- 11.1 Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 11.2 PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 11.3 Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 11.4 NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

#### SECTION 12: INSURANCE

- 12.1 Prior to the connection of the Facility, provided such Facility has a design capacity of 200 kW or more, to PGE's electric system, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "A" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.
- 12.2 Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "A" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 12.3 Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

#### SECTION 13: FORCE MAJEURE

- 13.1 As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility or changes in market conditions that affect the price of energy or transmission, and obligations for the payment of money when due. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
  - 13.1.1 the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
  - 13.1.2 the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
  - 13.1.3 the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 13.2 No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 13.3 Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

## SECTION 14: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

## SECTION 15: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

## **SECTION 16: PARTIAL INVALIDITY**

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

## **SECTION 17: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

#### SECTION 18: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

#### SECTION 19: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

#### **SECTION 20: ENTIRE AGREEMENT**

20.1 This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.

20.2 By executing this Agreement, Seller releases PGE from any claims related to the Facility, known or unknown, that may have arisen prior to the Effective Date.

### **SECTION 21: NOTICES**

21.1 All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:	
with a copy to:	
To PGE:	Contracts Manager QF Contracts, 3WTCBR06 PGE - 121 SW Salmon St. Portland, Oregon 97204
	may change the person to whom such notices are addressed, viding written notices thereof in accordance with this Section
	REOF, the Parties hereto have caused this Agreement to be e names as of the Effective Date.
PGE	
By: Name: Title:	
(Name Seller)	·
By:	

# EXHIBIT A MINIMUM NET OUTPUT

Seller may designate an alternative Minimum Net Output to seventy-five (75%) percent of annual Net Output in this exhibit ("Alternative Minimum Amount"). Such Alternative Minimum Amount, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of the Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.

### **EXHIBIT B**

### DESCRIPTION OF SELLER'S FACILITY

[Seller to Complete]

#### **EXHIBIT C**

#### REQUIRED FACILITY DOCUMENTS

[Seller list all permits and authorizations required for this project]

#### **EXHIBIT D**

#### START-UP TESTING

#### [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- 1. Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments:
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests;
- 4. Energization of transformers:
- 5. Synchronizing tests (manual and auto):
- 6. Stator windings dielectric test;
- Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs:
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering:
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

**EXHIBIT E** 

**TARIFF** 

[Attach currently in-effect rate Schedule 201]

# UM 1931 PGE Exhibit 103

PacifiCorp's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584

July 12, 2005

#### VIA ELECTRONIC FILING

Oregon Public Utility Commission 550 Capitol Street NE, Ste 215 Salem, OR 97301-2551

Attention: Vikie Bailey-Goggins, Administrator

Regulatory and Technical Support

Re: Docket UM 1129

Pursuant to Commission Order No. 05-584 issued in UM-1129, enclosed for filing are an original and five (5) copies of PacifiCorp's Application for approval of its proposed tariff Schedule No. 37, Avoided Cost Purchases From Qualifying Facilities Of 10,000 kW Or Less, Schedule No. 38, Avoided Cost Purchases From Qualifying Facilities Of Greater Than 10,000 kW, as well as PacifiCorp's proposed standard form power purchase agreements for new and existing qualifying facilities contracting under Schedule No. 37.

A CD containing the filing in both pdf and original formats will be provided. Copies of this filing have been served on all parties of record as noted in the attached certificate of service.

It is respectfully requested that all formal correspondence and staff requests regarding this matter be addressed to:

By E-mail (preferred): datarequest@pacificorp.com.

By Fax: (503) 813-6060

By regular mail: Data Request Response Center

**PacifiCorp** 

825 NE Multnomah, Suite 800

Portland, OR 97232

With copies to:

John M. Eriksson James F. Fell Stoel Rives LLP

900 SW Fifth Avenue, Suite 2600

Portland, OR 97204-1268

Tel. (503) 294-9343 Fax (503) 220-2480 jmeriksson@stoel.com

<u>jffell@stoel.com</u>
Informal inquiries may be directed to Laura Beane, Regulatory Manager at (503) 813-5542.

Sincerely yours,

D Douglas Larson Vice President, Regulation

Attachments

UM 1129 Service List cc:

1	BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON			
2				
3	DOCKET NO			
4				
5	PACIFICORP for Approval of Proposed Schedule Nos. 37 and 38 and Standard Form	APPLICATION OF PACIFICORP		
6	Power Purchase Agreements for Qualifying Facilities up to 10 MW.			
7				
8				
9	9 (the "Commission") in Docket No. UM 1129, ORS 756.040 and 758.525, and OAR 860-013-			
10	0 0010, PacifiCorp seeks approval from the Commission of (1) PacifiCorp's proposed Schedule			
11	1 No. 37, Avoided Cost Purchases From Qualifying Facilities of 10,000 kW or Less ("Schedule			
12	2 37"), and (2) PacifiCorp's proposed standard form contracts for qualifying facilities of 10,000			
13	kW or less. In support of its application, Paci	fiCorp states as follows:		
14	4 A. Address			
15	The applicant's exact name and busine	11		
	rr	ess address are:		
16	PacifiCorp	ess address are:		
16 17	**	ess address are:		
	PacifiCorp Lloyd Center Tower	ess address are:		
17	PacifiCorp Lloyd Center Tower 825 NE Multnomah Blvd.	ess address are:		
17 18	PacifiCorp Lloyd Center Tower 825 NE Multnomah Blvd. Portland, OR 97232  B. Communications and Notices	respect to this application should be addressed to:		
17 18 19	PacifiCorp Lloyd Center Tower 825 NE Multnomah Blvd. Portland, OR 97232  B. Communications and Notices All notices and communications with Jeff Larsen	respect to this application should be addressed to:  John M. Eriksson		
17 18 19 20	PacifiCorp Lloyd Center Tower 825 NE Multnomah Blvd. Portland, OR 97232  B. Communications and Notices All notices and communications with Jeff Larsen Director of Regulatory Policy	respect to this application should be addressed to:  John M. Eriksson James F. Fell		
17 18 19 20 21	PacifiCorp Lloyd Center Tower 825 NE Multnomah Blvd. Portland, OR 97232  B. Communications and Notices All notices and communications with  Jeff Larsen Director of Regulatory Policy PacifiCorp 825 NE Multnomah Blvd., Suite 800	respect to this application should be addressed to:  John M. Eriksson James F. Fell Stoel Rives LLP 900 SW Fifth Avenue, Suite 2600		
17 18 19 20 21 22	PacifiCorp Lloyd Center Tower 825 NE Multnomah Blvd. Portland, OR 97232  B. Communications and Notices  All notices and communications with  Jeff Larsen Director of Regulatory Policy PacifiCorp 825 NE Multnomah Blvd., Suite 800 Portland, OR 97232 Tel. (503) 813-6092	respect to this application should be addressed to:  John M. Eriksson James F. Fell Stoel Rives LLP 900 SW Fifth Avenue, Suite 2600 Portland, OR 97204-1268 Tel. (503) 294-9343		
17 18 19 20 21 22 23	PacifiCorp Lloyd Center Tower 825 NE Multnomah Blvd. Portland, OR 97232  B. Communications and Notices All notices and communications with  Jeff Larsen Director of Regulatory Policy PacifiCorp 825 NE Multnomah Blvd., Suite 800 Portland, OR 97232	respect to this application should be addressed to:  John M. Eriksson James F. Fell Stoel Rives LLP 900 SW Fifth Avenue, Suite 2600 Portland, OR 97204-1268		
17 18 19 20 21 22 23 24	PacifiCorp Lloyd Center Tower 825 NE Multnomah Blvd. Portland, OR 97232  B. Communications and Notices  All notices and communications with  Jeff Larsen Director of Regulatory Policy PacifiCorp 825 NE Multnomah Blvd., Suite 800 Portland, OR 97232 Tel. (503) 813-6092 Fax (503) 813-6060	respect to this application should be addressed to:  John M. Eriksson James F. Fell Stoel Rives LLP 900 SW Fifth Avenue, Suite 2600 Portland, OR 97204-1268 Tel. (503) 294-9343 Fax (503) 220-2480		

Page 1 - APPLICATION OF PACIFICORP

1 In addition, PacifiCorp respectfully requests that all data requests regarding this matter be addressed to: 2 3 By e-mail (preferred) datarequest@pacificorp.com 4 By regular mail Data Request Response Center **PacifiCorp** 5 825 NE Multnomah, Suite 800 Portland, Oregon, 97232 6 (503) 813-6060 By facsimile 7 8 Informal inquiries may also be directed to Laura Beane, Manager, Regulation at 9 (503) 813-5542. 10 C. Schedules 37 and 38 11 Presently, PacifiCorp's standard avoided cost rates for purchases in Oregon from 12 qualifying facilities ("QFs") are published in its Schedule No. 5. Schedule 37 is designed to 13 replace PacifiCorp's Schedule No. 5 and be consistent with the Commission's determinations in 14 Order No. 05-584 (the "Order"). In particular, Schedule 37 is applicable to QF's with total 15 nameplate capacity of no greater than 10,000 kW, and incorporates the pricing options ordered 16 by the Commission, utilizing avoided cost determination methodologies adopted by the 17 Commission. Further, Schedule 37 includes a description of the process for QFs to follow to 18 enter into a standard form agreement. Proposed Schedule 38 describes the process for QFs larger 19 than 10 MW to enter into a negotiated power purchase agreement. 20 D. **Standard Form Power Purchase Agreements** 21 Appended to Schedule 37 are PacifiCorp's proposed standard form Power Purchase 22 Agreements for use with new and existing QFs with a Facility Capacity Rating of 10,000 kW or 23 less (the "PPAs"). PacifiCorp has drafted the PPAs to conform with the requirements adopted by 24 the Commission in the Order. The PPAs are also drafted in a manner that will allow their use 25 with a variety of projects, whether on- or off-system. The proposed PPA for existing QFs is 26 based on the PPA for new QFs, modified mainly by the deletion of a number of inapplicable

1	provisions. PacifiCorp submits that the PPAs reasonably incorporate the Commission's		
2	determinations and should be approved as the form agreements for use with eligible QFs.		
3	PacifiCorp has met with Commission Staff regarding drafts of Schedules 37 and 38, and		
4	the PPA for new QFs, and has made modifications in an effort to address concerns raised by		
5	Staff and reflect suggested changes.		
6	WHEREFORE, for the reasons set forth above, PacifiCorp respectfully requests that the		
7	Commission issue an order approving Schedules 37 and 38 and the PPAs submitted herewith.		
8	DATED: July 12, 2005.		
9	STOEL RIVES LLP		
10			
11	James F. Fell		
12	Attorneys for PacifiCorp		
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#### POWER PURCHASE AGREEMENT

#### **BETWEEN**

[a Qualifying Facility with 10MW Design Capacity, or Less]

## AND

### **PACIFICORP**

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## POWER PURCHASE AGREEMENT

THIS POWER PURCHASE AGREEMENT, entered into thisday of, "Seller" and PacifiCorp,
an Oregon corporation acting in its regulated utility capacity, "PacifiCorp." (Seller and PacifiCorp are referred to individually as a "Party" or collectively as the "Parties").
RECITALS
A. Seller intends to construct, own, operate and maintain a  [state type of facility] facility for the generation o
electric power, including interconnection facilities, located in
[City, County, State] with a Facility Capacity Rating ofkilowatts (kW) as further described in <b>Exhibit A</b> and <b>Exhibit B</b> ("Facility"); and
B. Seller intends to commence delivery of Net Output under this Agreement, for the purpose of Start-up Testing, on, 20 ("Scheduled Initial Delivery Date"); and
C. Seller intends to operate the Facility as a Qualifying Facility, commencing commercial operations on, 20 ("Scheduled Commercial Operation Date"); and
D. Seller estimates that the average annual Net Energy to be delivered by the Facility to PacifiCorp is kilowatt-hours (kWh), which amount of energy PacifiCorp will include in its resource planning; and
E. Seller shall sell and PacifiCorp shall purchase all Net Output from the Facility in accordance with the terms and conditions of this Agreement; and
F. This Agreement is a "New QF Contract" under the PacifiCorp Inter-Jurisdictional Cost Allocation Revised Protocol.

#### **AGREEMENT**

NOW, THEREFORE, the Parties mutually agree as follows:

#### **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1 "As-built Supplement" shall be a supplement to Exhibit A, provided by Seller following completion of construction of the Facility, describing the Facility as actually built.
  - 1.2 "Average Annual Generation" shall have the meaning set forth in Section 4.2.
- 1.3 **"Billing Period"** means the time period between PacifiCorp's consecutive readings of its power purchase billing meter at the Facility in the normal course of PacifiCorp's business. Such periods typically range between twenty-seven (27) and thirty-four (34) days and may not coincide with calendar months.
- 1.4 "Commercial Operation Date" means the date that the Facility is deemed by PacifiCorp to be fully operational and reliable, which shall require, among other things, that all of the following events have occurred:
  - 1.4.1 PacifiCorp has received a certificate addressed to PacifiCorp from a Licensed Professional Engineer stating (a) the Facility Capacity Rating of the Facility at the anticipated Commercial Operation Date; and (b) that the Facility is able to generate electric power reliably in amounts required by this Agreement and in accordance with all other terms and conditions of this Agreement;
  - 1.4.2 The Facility has completed Start-Up Testing;
  - 1.4.3 PacifiCorp has received a certificate addressed to PacifiCorp from a Licensed Professional Engineer stating that, (a), in accordance with the Generation Interconnection Agreement, all required interconnection facilities have been constructed, all required interconnection tests have been completed and the Facility is physically interconnected with PacifiCorp's electric system, or (b) if the Facility is interconnected with another electric utility that will wheel Net Output to PacifiCorp, all required interconnection facilities have been completed and tested and are in place to allow for such wheeling;
  - 1.4.4 PacifiCorp has received a certificate addressed to PacifiCorp from an attorney in good standing in the State of Oregon stating that Seller has obtained all Required Facility Documents and if requested by PacifiCorp, in writing, has provided copies of any or all such requested Required Facility Documents. (Facilities over 200 kW only).
  - 1.4.5 Seller has complied with the security requirements of Section 10.

- 1.5 **"Commission"** means the Oregon Public Utilities Commission.
- 1.6 **"Contract Price"** means the applicable price for capacity or energy, or both capacity and energy, stated in Sections 5.1 and 5.2.
- 1.7 "Contract Year means a twelve (12) month period commencing at 00:00 hours Pacific Prevailing Time ("PPT") on January 1 and ending on 24:00 hours PPT on December 31; provided, however, that the first Contract Year shall commence on the Commercial Operation Date and end on the next succeeding December 31, and the last Contract Year shall end on the Expiration Date.
- 1.8 "Credit Requirements" means a long-term credit rating (corporate or long-term senior unsecured debt) of (1) "Baa3" or greater by Moody's, or (2) "BBB-" or greater by S&P, or such other indicia of creditworthiness acceptable to PacifiCorp in its reasonable judgment.
- 1.9 "**Default Security**", unless otherwise agreed to by the Parties in writing, means the amount of either a Letter of Credit or cash placed in an escrow account sufficient to replacetwelve (12) average months of replacement power costs over the term of this Agreement, and shall be calculated by taking the average, over the term of this Agreement, of the positive difference between (a) the monthly forward power prices at **[specify POD]** (as determined by PacifiCorp in good faith using information from a commercially reasonable independent source), multiplied by 110%, minus (b) the average of the Fixed Avoided Cost Prices specified in Schedule 37, and multiplying such difference by (c) the Minimum Annual Delivery; provided, however, the amount of Default Security shall in no event be less than the amount equal to the payments PacifiCorp would make for three (3) average months based on Seller's average monthly volume over the term of this Agreement and utilizing the average Fixed Avoided Cost Prices specified in Schedule 37. Such amount shall be fixed at the Effective Date of this Agreement.
  - 1.10 "**Effective Date**" shall have the meaning set forth in Section 2.1.
  - 1.11 "Energy Delivery Schedule" shall have the meaning set forth in Section 4.5.
- 1.12 "Excess Output" shall mean any increment of Net Output delivered at a rate, on an hourly basis, exceeding the Facility Nameplate Capacity.
  - 1.13 **"Facility"** shall have the meaning set forth in Recital A.
- 1.14 "Facility Capacity Rating" means the sum of the Nameplate Capacity Ratings for all generators comprising the Facility.
  - 1.15 "FERC" means the Federal Energy Regulatory Commission, or its successor.
- 1.16 "Generation Interconnection Agreement" means the generation interconnection agreement to be entered into separately between Seller and PacifiCorp's transmission or distribution department, as applicable, providing for the construction, operation, and maintenance of PacifiCorp's interconnection facilities required to accommodate deliveries of Seller's Net Output if the Facility is to be interconnected directly with PacifiCorp rather than another electric utility.

- 1.17 "Letter of Credit" means an irrevocable standby letter of credit, from an institution that has a long-term senior unsecured debt rating of "A" or greater from S&P or "A2" or greater from Moody's, in a form reasonably acceptable to PacifiCorp, naming PacifiCorp as the party entitled to demand payment and present draw requests thereunder.
- 1.18 "Licensed Professional Engineer" means a person acceptable to PacifiCorp in its reasonable judgment who is licensed to practice engineering in the state of Oregon, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made.
- 1.19 "Material Adverse Change" means the occurrence of any event of default under any material agreement to which Seller is a party and of any other development, financial or otherwise, which would have a material adverse effect on Seller, the Facility or Seller's ability to develop, construct, operate, maintain or own the Facility as provided in this Agreement
  - 1.20 "Maximum Annual Delivery" shall have the meaning set forth in Section 4.3.
  - 1.21 "Minimum Annual Delivery" shall have the meaning set forth in Section 4.3.
- 1.22 "Nameplate Capacity Rating" means the maximum generating capacity, as provided by the manufacturer, in kW, of any qualifying small power or cogeneration unit supplying all or part of the Facility's Net Output. Voluntary curtailment by Seller of a generating unit cannot reduce the Nameplate Capacity Rating of that unit.
  - 1.23 "**Net Energy**" means the energy component, in kWh, of Net Output.
- 1.24 "Net Output" means all energy and capacity produced by the Facility, less station use and less transformation and transmission losses and other adjustments (e.g., Seller's load other than station use), if any. For purposes of calculating payment under this Agreement, Net Output of energy shall be the amount of energy flowing through the Point of Delivery.
- 1.25 "Net Replacement Power Costs" shall have the meaning set forth in Section 11.3.1.
  - 1.26 "Off-Peak Hours" means all hours of the week that are not On-Peak Hours.
- 1.27 **"On-Peak Hours"** means the hours between 6 a.m. Pacific Prevailing Time ("**PPT**") and 10 p.m. PPT, Mondays through Fridays, excluding all hours occurring on holidays as provided in Schedule 37.
- 1.28 "Point of Delivery" means the high side of the Seller's step-up transformer(s) located at the point of interconnection between the Facility and PacifiCorp's distribution/ transmission system, as specified in the Generation Interconnection Agreement, or, if the Facility is not interconnected directly with PacifiCorp, the point at which another utility will deliver the Net Output to PacifiCorp as specified in **Exhibit B**.

- 1.29 **"Prime Rate"** means the publicly announced prime rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, New York, selected by the Party to whom interest based on the Prime Rate is being paid.
- 1.30 "Prudent Electrical Practices" means any of the practices, methods and acts engaged in or approved by a significant portion of the electrical utility industry or any of the practices, methods or acts, which, in the exercise of reasonable judgment in the light of the facts known at the time a decision is made, could have been expected to accomplish the desired result at the lowest reasonable cost consistent with reliability, safety and expedition. Prudent Electrical Practices is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be a spectrum of possible practices, methods or acts.
- 1.31 "QF" means "Qualifying Facility," as that term is defined in the FERC regulations (codified at 18 CFR Part 292) in effect on the Effective Date.
- 1.32 "Replacement Price" means the price at which PacifiCorp, acting in a commercially reasonable manner, purchases for delivery at the Point of Delivery a replacement for any Net Output that Seller is required to deliver under this Agreement plus (i) costs reasonably incurred by PacifiCorp in purchasing such replacement Net Output, and (ii) additional transmission charges, if any, reasonably incurred by PacifiCorp in causing replacement energy to be delivered to the Point of Delivery. If PacifiCorp elects not to make such a purchase, the Replacement Price shall be the market price at the Mid-Columbia trading hub for such energy not delivered, plus any additional cost or expense incurred as a result of Seller's failure to deliver, as determined by PacifiCorp in a commercially reasonable manner (but not including any penalties, ratcheted demand or similar charges).
- 1.33 "Required Facility Documents" means all licenses, permits, authorizations, and agreements, including a Generation Interconnection Agreement or equivalent, necessary for construction, operation, and maintenance of the Facility consistent with the terms of this Agreement, including without limitation those set forth in **Exhibit C.**
- 1.34 "Schedule 37" means the Schedule 37 of Pacific Power & Light Company's Commission-approved tariffs, providing pricing options for Qualifying Facilities of 10,000 kW or less, which is in effect on the Effective Date of this Agreement. A copy of that Schedule 37 is attached as **Exhibit F**.
- 1.35 **"Scheduled Commercial Operation Date"** shall have the meaning set forth in Recital C.
  - 1.36 "Scheduled Initial Delivery Date" shall have the meaning set forth in Recital B.
- 1.37 "Start-Up Testing" means the completion of required factory and start-up tests as set forth in Exhibit E hereto.
  - 1.38 "**Termination Date**" shall have the meaning set forth in Section 2.4.

#### **SECTION 2: TERM; COMMERCIAL OPERATION DATE**

- 2.1 This Agreement shall become effective after execution by both Parties ("**Effective Date**").
- 2.2 **Time is of the essence for this Agreement,** and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to deliver Net Output by the Scheduled Commercial Operation Date is critically important. Therefore,

2.2.1	By, Se	ller shall provide PacifiCorp with a copy
	of an executed Generation Int	erconnection Agreement, or wheeling
	agreement, as applicable, which s and requirements of this Agreeme	hall be consistent with all material terms nt.

- 2.2.2 By \_\_\_\_\_\_\_, Seller, in accordance with Section 6.1, shall provide PacifiCorp with an As-built Supplement acceptable to PacifiCorp;
- 2.2.3 By the date thirty (30) days after the Effective Date, Seller shall provide Default Security required under Sections 10.1 or 10.2, as applicable.
- 2.3 Seller shall cause the Facility to achieve Commercial Operation on or before the Scheduled Commercial Operation Date. If Commercial Operation occurs after the Scheduled Commercial Operation Date, Seller shall be in default, and liable for delay damages specified in Section 11.
- 2.4 Except as otherwise provided herein, this Agreement shall terminate on \_\_\_\_\_ [enter Date that is no later than 20 years after the Scheduled Initial Delivery Date] ("**Termination Date**").

#### **SECTION 3: REPRESENTATIONS AND WARRANTIES**

- 3.1 PacifiCorp represents, covenants, and warrants to Seller that:
  - 3.1.1 PacifiCorp is duly organized and validly existing under the laws of the State of Oregon.
  - 3.1.2 PacifiCorp has the requisite corporate power and authority to enter into this Agreement and to perform according to the terms of this Agreement.
  - 3.1.3 PacifiCorp has taken all corporate actions required to be taken by it to authorize the execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby.
  - 3.1.4 The execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on PacifiCorp or any valid order of any

- court, or any regulatory agency or other body having authority to which PacifiCorp is subject.
- 3.1.5 This Agreement is a valid and legally binding obligation of PacifiCorp, enforceable against PacifiCorp in accordance with its terms (except as the enforceability of this Agreement may be limited by bankruptcy, insolvency, bank moratorium or similar laws affecting creditors' rights generally and laws restricting the availability of equitable remedies and except as the enforceability of this Agreement may be subject to general principles of equity, whether or not such enforceability is considered in a proceeding at equity or in law).
- 3.2 Seller represents, covenants, and warrants to PacifiCorp that:
  - 3.2.1 Seller is a [corporation, partnership, or limited liability company] duly organized and validly existing under the laws of \_\_\_\_\_.
  - 3.2.2 Seller has the requisite power and authority to enter into this Agreement and to perform according to the terms hereof, including all required regulatory authority to make wholesale sales from the Facility.
  - 3.2.3 Seller's shareholders, directors and officers have taken all actions required to authorize the execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby.
  - 3.2.4 The execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
  - 3.2.5 This Agreement is a valid and legally binding obligation of Seller, enforceable against Seller in accordance with its terms (except as the enforceability of this Agreement may be limited by bankruptcy, insolvency, bank moratorium or similar laws affecting creditors' rights generally and laws restricting the availability of equitable remedies and except as the enforceability of this Agreement may be subject to general principles of equity, whether or not such enforceability is considered in a proceeding at equity or in law).
  - 3.2.6 The Facility is and shall for the term of this Agreement continue to be a QF, and Seller will operate the Facility in a manner consistent with its FERC QF certification. Seller has provided to PacifiCorp the appropriate QF certification (which may include a FERC self-certification) prior to PacifiCorp's execution of this Agreement. At any time during the term of this Agreement, PacifiCorp may require Seller to provide PacifiCorp with evidence satisfactory to PacifiCorp in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements and, if PacifiCorp is not satisfied that the Facility qualifies for such status,

a written legal opinion from an attorney who is (a) in good standing in the state of Oregon, and (b) who has no economic relationship, association or nexus with the Seller or the Facility, stating that the Facility is a QF and providing sufficient proof (including copies of all documents and data as PacifiCorp may request) demonstrating that Seller has maintained and will continue to maintain the Facility as a QF.

- 3.2.7 <u>Additional Seller Creditworthiness Warranties.</u> Seller need not post security under Section 10 for PacifiCorp's benefit in the event of Seller default, provided that Seller warrants all of the following:
  - (a) Neither the Seller nor any of its principal equity owners is or has within the past two (2) years been the debtor in any bankruptcy proceeding, is unable to pay its bills in the ordinary course of its business, or is the subject of any legal or regulatory action, the result of which could reasonably be expected to impair Seller's ability to own and operate the Facility in accordance with the terms of this Agreement.
  - (b) Seller has not at any time defaulted in any of its payment obligations for electricity purchased from PacifiCorp.
  - (c) Seller is not in default under any of its other agreements and is current on all of its financial obligations.
  - (d) Seller owns, and will continue to own for the term of this Agreement, all right, title and interest in and to the Facility, free and clear of all liens and encumbrances other than liens and encumbrances related to third-party financing of the Facility.
  - (e) [Applicable only to Seller's with a Facility having a Facility Capacity Rating greater than 3 MW] Seller meets the Credit Requirements.

 Seller affirms and adopts all warranties of this Section
3.2.7, and therefore is not required to post security under
Section 10; or
 Seller does not affirm and adopt all warranties of this
Section 3.2.7, and therefore Seller elects to post the
security specified in Section 10.

3.3 <u>Notice</u>. If at any time during this Agreement, any Party obtains actual knowledge of any event or information which would have caused any of the representations and warranties in this Section 3 to have been materially untrue or misleading when made, such Party shall

Seller hereby declares (Seller initial one only):

provide the other Party with written notice of the event or information, the representations and warranties affected, and the action, if any, which such Party intends to take to make the representations and warranties true and correct. The notice required pursuant to this Section shall be given as soon as practicable after the occurrence of each such event.

#### **SECTION 4: DELIVERY OF POWER**

4.1 Commencing on the Commercial Operation Date, unless otherwise provided herein, Seller will sell and PacifiCorp will purchase all Net Output from the Facility.
4.2 <u>Average Annual Generation</u> . Seller estimates that the Facility will generate, on average, kWh per Contract Year ("Average Annual Generation"). Seller may, upon at least six months prior written notice, modify the Average Annual Generation every other Contract Year.
4.3 Minimum and Maximum Delivery. Seller shall make available from the Facility a minimum of kWh of Net Output during each Contract Year, provided that such minimum for the first Contract Year shall be reduced pro rata to reflect the Commercial Operation Date, and further provided that such minimum Net Output shall be reduced on a prorata basis for any periods during a Contract Year that the Facility was prevented from generating electricity for reasons of Force Majeure ("Minimum Annual Delivery"). Seller estimates, for informational purposes, that it will make available from the Facility a maximum of kWh of Net Output during each Contract Year ("Maximum Annual Delivery"). Seller's basis for determining the Minimum and Maximum Annual Delivery amounts is set forth in Exhibit D.
4.4 <u>Deliveries in Deficit of Delivery Obligation.</u> Seller's failure to deliver the Minimum Annual Delivery in any Contract Year (prorated if necessary) shall be a default, and Seller shall be liable for damages in accordance with Section 11.
4.5 <u>Energy Delivery Schedule</u> Seller has provided a monthly schedule of Net Energy expected to be delivered by the Facility (" <b>Energy Delivery Schedule</b> "), incorporated into <b>Exhibit D</b> .
SECTION 5: PURCHASE PRICES
5.1 Seller shall have the option to select one of three pricing options: Fixed Avoided Cost Prices ("Fixed Price"), Gas Market Indexed Avoided Cost Prices ("Gas Market"), or Banded Gas Market Indexed Avoided Cost Prices ("Banded Gas Market"), as published in Schedule 37. Once an option is selected the option will remain in effect for the duration of the Facility's contract. Seller has selected the following (Seller to initial one):
Fixed Price
Gas Market
Banded Gas Market
A copy of Schedule 37, and a table summarizing the purchase prices under the pricing option

selected by Seller, is attached as Exhibit F.

5.2 (Fixed Price Sellers Only). In the event Seller elects the Fixed Price payment
method, PacifiCorp shall pay Seller the applicable On-Peak and Off-Peak rates specified in
<b>Schedule 37</b> during the first fifteen (15) years after the Scheduled Initial Delivery Date.
Thereafter, PacifiCorp shall pay Seller market-based rates, using the following pricing option
(Seller to initial one):
·

 Gas Market	
Banded Gas Market	

- 5.3 If the Seller elects a gas market indexed price option, the index shall be the Opal Gas Market Index as provided in Schedule 37. In the event that Platt ceases to publish the Opal Gas Market Index, the Company shall replace the index with a similar gas index.
- 5.4 PacifiCorp shall pay Seller the Off-peak Price for all Excess Output and for all Net Output delivered prior to the Commercial Operation Date. Such payment will be accomplished by adjustments pursuant to Section 9.2.

#### **SECTION 6: OPERATION AND CONTROL**

- 6.1 <u>As-Built Supplement</u>. Upon completion of construction of the Facility, Seller shall provide PacifiCorp an As-built Supplement to specify the actual Facility as built. The Asbuilt Supplement must be reviewed and approved by PacifiCorp, which approval shall not unreasonably be withheld, conditioned or delayed. Seller shall not increase the Facility Capacity Rating above that specified in **Exhibit A** or increase the ability of the Facility to deliver Net Output in quantities in excess of the Facility Capacity Rating through any means including, but not limited to, replacement of, modification of, or addition of existing equipment, except with the written consent of PacifiCorp.
- 6.2 Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement (if applicable), Prudent Electrical Practices and in accordance with the requirements of all applicable federal, state and local laws and the National Electric Safety Code as such laws and code may be amended from time to time. PacifiCorp shall have no obligation to purchase Net Output from the Facility to the extent the interconnection between the Facility and PacifiCorp's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's non-compliance with the Generation Interconnection Agreement. PacifiCorp shall have the right to inspect the Facility to confirm that Seller is operating the Facility in accordance with the provisions of this Section 6.2 upon reasonable notice to Seller. Seller is solely responsible for the operation and maintenance of the Facility. PacifiCorp shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 6.3 <u>Scheduled Outages.</u> Seller may cease operation of the entire Facility or individual units, if applicable, for maintenance or other purposes. Seller shall exercise its best efforts to notify PacifiCorp of planned outages at least ninety (90) days prior, and shall reasonably

accommodate PacifiCorp's request, if any, to reschedule such planned outage in order to accommodate PacifiCorp's need for Facility operation.

6.4 <u>Unplanned Outages</u>. In the event of an unscheduled outage or curtailment exceeding twenty-five (25) percent of the Facility Capacity Rating (other than curtailments due to lack of motive force), Seller immediately shall notify PacifiCorp of the necessity of such unscheduled outage or curtailment, the time when such has occurred or will occur and the anticipated duration. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled outage or curtailment, to limit the duration of such, and to perform unscheduled maintenance during Off-Peak hours.

#### **SECTION 7: FUEL/MOTIVE FORCE**

Prior to the Effective Date of this Agreement, Seller provided to PacifiCorp a fuel or motive force plan acceptable to PacifiCorp in its reasonable discretion and attached hereto as **Exhibit D-1**, together with a certification from a Licensed Professional Engineer to PacifiCorp attached hereto as **Exhibit D-2**, certifying that the implementation of the fuel or motive force plan can reasonably be expected to provide fuel or motive force to the Facility for the duration of this Agreement adequate to generate power and energy in quantities necessary to deliver the Minimum Annual Delivery set forth by Seller in Section 4.

#### **SECTION 8: METERING**

- 8.1 PacifiCorp shall design, furnish, install, own, inspect, test, maintain and replace all metering equipment required pursuant to the Generation Interconnection Agreement, if applicable.
- 8.2 Metering shall be performed at the location and in a manner consistent with this Agreement and as specified in the Generation Interconnection Agreement, or, if the Net Output is to be wheeled to PacifiCorp by another utility, metering will be performed in accordance with the terms of PacifiCorp's interconnection agreement with such other utility. All quantities of energy purchased hereunder shall be adjusted to account for electrical losses, if any between the point of metering and the Point of Delivery, so that the purchased amount reflects the net amount of energy flowing into PacifiCorp's system at the Point of Delivery.
- 8.3 PacifiCorp shall periodically inspect, test, repair and replace the metering equipment as provided in the Generation Interconnection Agreement, if applicable. If the Net Output is to be wheeled to PacifiCorp by another utility, meter inspection, testing, repair and replacement will be performed in accordance with the terms of PacifiCorp's interconnection agreement with such utility. If any of the inspections or tests disclose an error exceeding two percent (2%), either fast or slow, proper correction, based upon the inaccuracy found, shall be made of previous readings for the actual period during which the metering equipment rendered inaccurate measurements if that period can be ascertained. If the actual period cannot be ascertained, the proper correction shall be made to the measurements taken during the time the metering equipment was in service since last tested, but not exceeding three (3) Billing Periods, in the amount the metering equipment shall have been shown to be in error by such test. Any correction in billings or payments resulting from a correction in the meter records shall be made in the next monthly billing or payment rendered following the repair of the meter.

#### **SECTION 9: BILLINGS, COMPUTATIONS, AND PAYMENTS**

- 9.1 On or before the thirtieth (30th) day following the end of each Billing Period, PacifiCorp shall send to Seller payment for Seller's deliveries of Net Output to PacifiCorp, together with computations supporting such payment PacifiCorp may offset any such payment to reflect amounts owing from Seller to PacifiCorp pursuant to this Agreement, the Generation Interconnection Agreement, or any other agreement between the Parties.
- 9.2 <u>Corrections</u>. PacifiCorp shall have up to eighteen months to adjust any payment made pursuant to Section 9.1. In the event PacifiCorp determines it has overpaid Seller (for Excess Output or otherwise), PacifiCorp may adjust Seller's future payment accordingly in order to recapture any overpayment in a reasonable time.
- 9.3 Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; *provided*, *however*, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

#### **SECTION 10: SECURITY**

Unless Seller has adopted the creditworthiness warranties contained in Section 3.2.7, Seller must provide security (if requested by PacifiCorp) in the form of a cash escrow, letter of credit, senior lien, or step-in rights. Seller hereby elects to provide, in accordance with the applicable terms of this Section 10, the following security (Seller to initial one selection only):

 Cash Escrow
 Letter of Credit
 Senior Lien
 Step-in Rights
Seller has adopted the Creditworthiness Warranties of Section 3.2.7

# [SKIP THIS SECTION 10.1 UNLESS SELLER SELECTED CASH ESCROW ALTERNATIVE]

10.1 <u>Cash Escrow Security.</u> Seller shall deposit in an escrow account established by PacifiCorp in a banking institution acceptable to both Parties, the Default Security. Such sum shall earn interest at the rate applicable to money market deposits at such banking institution from time to time. To the extent PacifiCorp receives payment from the Default Security, Seller shall, within fifteen (15) days, restore the Default Security as if no such deduction had occurred.

# [SKIP THIS SECTION 10.2 UNLESS SELLER SELECTED LETTER OF CREDIT ALTERNATIVE]

10.2 <u>Letter of Credit Security</u>. Seller shall post and maintain in an amount equal to the Default Security: (a) a guaranty from a party that satisfies the Credit Requirements, in a form acceptable to PacifiCorp in its discretion, or (b) a Letter of Credit in favor of PacifiCorp. To the extent PacifiCorp receives payment from the Default Security, Seller shall, within fifteen (15) days, restore the Default Security as if no such deduction had occurred.

# [SKIP THIS SECTION 10.3 UNLESS SELLER SELECTED SENIOR LIEN ALTERNATIVE]

10.3 <u>Senior Lien</u>. Before the Scheduled Commercial Operation Date, Seller shall grant PacifiCorp a senior, unsubordinated lien on the Facility and its assets as security for performance of this Agreement by executing, acknowledging and delivering a security agreement and a deed of trust or a mortgage, in a recordable form (each in a form satisfactory to PacifiCorp in the reasonable exercise of its discretion). Pending delivery of the senior lien to PacifiCorp, Seller shall not cause or permit the Facility or its assets to be burdened by liens or other encumbrances that would be superior to PacifiCorp's, other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.

# [SKIP THIS SECTION 10.4 UNLESS SELLER SELECTED STEP-IN RIGHTS ALTERNATIVE]

- 10.4 Step-in Rights (Operation by PacifiCorp Following Event of Default of Seller).
  - 10.4.1 Prior to any termination of this Agreement due to an Event of Default of Seller, as identified in Section 11, PacifiCorp shall have the right, but not the obligation, to possess, assume control of, and operate the Facility as agent for Seller (in accordance with Seller's rights, obligations, and interest under this Agreement) during the period provided for herein. Seller shall not grant any person, other than the lending institution providing financing to the Seller for construction of the Facility ("Facility Lender"), a right to possess, assume control of, and operate the Facility that is equal to or superior to PacifiCorp's right under this Section 10.4.
  - 10.4.2 PacifiCorp shall give Seller ten (10) calendar days notice in advance of the contemplated exercise of PacifiCorp's rights under this Section 10.4. Upon such notice, Seller shall collect and have available at a convenient, central location at the Facility all documents, contracts, books, manuals, reports, and records required to construct, operate, and maintain the Facility in accordance with Prudent Electrical Practices. Upon such notice, PacifiCorp, its employees, contractors, or designated third parties shall have the unrestricted right to enter the Facility for the purpose of constructing and/or operating the Facility. Seller hereby irrevocably appoints PacifiCorp as Seller's attorney-in-fact for the exclusive purpose of executing such documents and taking such other actions as PacifiCorp may reasonably deem necessary or appropriate to exercise PacifiCorp's step-in rights under this Section 10.4.
  - 10.4.3 During any period that PacifiCorp is in possession of and constructing and/or operating the Facility, no proceeds or other monies attributed to operation of the Facility shall be remitted to or otherwise provided to the account of Seller until all Events of Default of Seller have been cured.

- 10.4.4 During any period that PacifiCorp is in possession of and operating the Facility, Seller shall retain legal title to and ownership of the Facility and PacifiCorp shall assume possession, operation, and control solely as agent for Seller.
  - (a) In the event PacifiCorp is in possession and control of the Facility for an interim period, Seller shall resume operation and PacifiCorp shall relinquish its right to operate when Seller demonstrates to PacifiCorp's reasonable satisfaction that it will remove those grounds that originally gave rise to PacifiCorp's right to operate the Facility, as provided above, in that Seller (i) will resume operation of the Facility in accordance with the provisions of this Agreement, and (ii) has cured any Events of Default of Seller which allowed PacifiCorp to exercise its rights under this Section 10.4.
  - (b) In the event that PacifiCorp is in possession and control of the Facility for an interim period, the Facility Lender, or any nominee or transferee thereof, may foreclose and take possession of and operate the Facility and PacifiCorp shall relinquish its right to operate when the Facility Lender or any nominee or transferee thereof, requests such relinquishment.
- 10.4.5 PacifiCorp's exercise of its rights hereunder to possess and operate the Facility shall not be deemed an assumption by PacifiCorp of any liability attributable to Seller. If at any time after exercising its rights to take possession of and operate the Facility PacifiCorp elects to return such possession and operation to Seller, PacifiCorp shall provide Seller with at least fifteen (15) calendar days advance notice of the date PacifiCorp intends to return such possession and operation, and upon receipt of such notice Seller shall take all measures necessary to resume possession and operation of the Facility on such date.
- 10.5 As a condition to providing a Senior Lien or Step-in Rights, Seller shall, before the Scheduled Commercial Operation Date, post and maintain, in an amount reasonably determined by PacifiCorp, a Letter of Credit in favor of PacifiCorp, which PacifiCorp, during the term of this Agreement, can draw upon to satisfy amounts PacifiCorp might reasonably incur in order to satisfy environmental remediation requirements.

#### **SECTION 11: DEFAULTS AND REMEDIES**

- 11.1 <u>Events of Default.</u> The following events shall constitute defaults under this Agreement:
  - 11.1.1 <u>Breach of Material Term.</u> Failure of a Party to perform any material obligation imposed upon that Party by this Agreement (including but not limited to failure by Seller to meet any deadline set forth in Section 2) or

- breach by a Party of a representation or warranty set forth in this Agreement.
- 11.1.2 <u>Default on Other Agreements.</u> Seller's failure to cure any default under any commercial or financing agreements or instrument (including the Generation Interconnection Agreement) within the time allowed for a cure under such agreement or instrument.
- 11.1.3 <u>Insolvency.</u> A Party (a) makes an assignment for the benefit of its creditors; (b) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy or similar law for the protection of creditors, or has such a petition filed against it and such petition is not withdrawn or dismissed within sixty (60) days after such filing; (c) becomes insolvent; or (d) is unable to pay its debts when due.
- 11.1.4 <u>Material Adverse Change</u>. A Material Adverse Change has occurred with respect to Seller and Seller fails to provide such performance assurances as are reasonably requested by PacifiCorp, including without limitation the posting of additional Default Security, within thirty (30) days from the date of such request;
- 11.1.5 <u>Delayed Commercial Operations.</u> Seller's failure to achieve the Commercial Operation Date by the Scheduled Commercial Operation Date.
- 11.1.6 <u>Underdelivery.</u> Seller's failure to satisfy the minimum delivery obligation of Section 4.3.

#### 11.2 Notice; Opportunity to Cure.

- 11.2.1 <u>Notice</u>. In the event of any default hereunder, the non-defaulting Party must notify the defaulting Party in writing of the circumstances indicating the default and outlining the requirements to cure the default.
- 11.2.2 Opportunity to Cure. A Party defaulting under Section 11.1.1 or 11.1.5 shall have thirty (30) days to cure after receipt of proper notice from the non-defaulting Party. This thirty (30) day period shall be extended by an additional ninety (90) days if (a) the failure cannot reasonably be cured within the thirty (30) day period despite diligent efforts, (b) the default is capable of being cured within the additional ninety (90) day period, and (c) the defaulting Party commences the cure within the original thirty (30) day period and is at all times thereafter diligently and continuously proceeding to cure the failure.
- 11.2.3 <u>Seller Default Under Other Agreements.</u> Seller shall cause any notices of default under any of its commercial or financing agreements or instruments to be sent by the other party to such agreements or

instruments, or immediately forwarded, to PacifiCorp as a notice in accordance with Section 23.

#### 11.3 Termination.

- 11.3.1 Notice of Termination. If a default described herein has not been cured within the prescribed time, above, the non-defaulting Party may terminate this Agreement at its sole discretion by delivering written notice to the other Party and may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement; provided, however that PacifiCorp shall not terminate for a default under Section 11.1.6 unless such default is material. The rights provided in Section 10 and this Section 11 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights. Further, the Parties may by mutual written agreement amend this Agreement in lieu of a Party's exercise of its right to terminate.
- 11.3.2 <u>Seller Disqualification</u>. If this Agreement is terminated because of Seller's default, Seller may not require PacifiCorp to purchase energy or capacity from the Facility prior to the Termination Date, and Seller hereby waives its rights to require PacifiCorp to do so. This subsection shall survive the termination of this Agreement.
- 11.3.3 <u>Damages</u>. If this Agreement is terminated as a result of Seller's default, Seller shall pay PacifiCorp the positive difference, if any, obtained by subtracting the Contract Price from the sum of the Replacement Price for the Minimum Annual Delivery that Seller was otherwise obligated to provide for a period of twenty-four (24) months from the date of termination plus any cost incurred for transmission purchased to deliver the replacement power to the Point of Delivery, and the estimated administrative cost to the utility to acquire replacement power. Amounts owed by Seller pursuant to this paragraph shall be due within five (5) business days after any invoice from PacifiCorp for the same.
- 11.3.4 If this Agreement is terminated because of Seller's default, PacifiCorp may foreclose upon any security provided pursuant to Section 10 to satisfy any amounts that Seller owes PacifiCorp arising from such default.

#### 11.4 Damages.

11.4.1 <u>Failure to Deliver Net Output</u>. In the event of Seller default under Subsection 11.1.5 or Subsection 11.1.6, then Seller shall pay PacifiCorp the positive difference, if any, obtained by subtracting the Contract Price from the Replacement Price for any energy and capacity that Seller was otherwise obligated to provide during the period of default ("**Net Replacement Power Costs**"). Amounts owed by Seller pursuant to this

paragraph shall be due within fifteen (15) days after any invoice from PacifiCorp for the same.

#### 11.4.2 Recoupment of Damages.

- (a) <u>Default Security Available.</u> If Seller has posted Default Security, PacifiCorp may draw upon that security to satisfy any damages, above.
- (b) <u>Default Security Unavailable.</u> If Seller has not posted Default Security, or if PacifiCorp has exhausted the Default Security, PacifiCorp may collect any remaining amount owing by partially withholding future payments to Seller over a reasonable period of time, which period shall not be less than the period over which the default occurred. PacifiCorp and Seller shall work together in good faith to establish the period, and monthly amounts, of such withholding so as to avoid Seller's default on its commercial or financing agreements necessary for its continued operation of the Facility.

#### **SECTION 12: INDEMNIFICATION AND LIABILITY**

#### 12.1 Indemnities.

- 12.1.1 <u>Indemnity by Seller</u>. Seller shall release, indemnify and hold harmless PacifiCorp, its directors, officers, agents, and representatives against and from any and all loss, fines, penalties, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with (a) the energy delivered by Seller under this Agreement to and at the Point of Delivery, (b) any facilities on Seller's side of the Point of Delivery, (c) Seller's operation and/or maintenance of the Facility, or (d) arising from this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PacifiCorp, Seller or others, excepting only such loss, claim, action or suit as may be caused solely by the fault or gross negligence of PacifiCorp, its directors, officers, employees, agents or representatives.
- 12.1.2 <u>Indemnity by PacifiCorp.</u> PacifiCorp shall release, indemnify and hold harmless Seller, its directors, officers, agents, Lenders and representatives against and from any and all loss, fines, penalties, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with the energy delivered by Seller under this Agreement after the Point of Delivery, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or

destruction or economic loss of property, excepting only such loss, claim, action or suit as may be caused solely by the fault or gross negligence of Seller, its directors, officers, employees, agents, Lenders or representatives.

- 12.2 <u>No Dedication</u>. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PacifiCorp as an independent public utility corporation or Seller as an independent individual or entity.
- 12.3 No Consequential Damages. EXCEPT TO THE EXTENT SUCH DAMAGES ARE INCLUDED IN THE LIQUIDATED DAMAGES, DELAY DAMAGES, COST TO COVER DAMAGES OR OTHER SPECIFIED MEASURE OF DAMAGES EXPRESSLY PROVIDED FOR IN THIS AGREEMENT, NEITHER PARTY SHALL NOT BE LIABLE TO THE OTHER PARTY FOR SPECIAL, PUNITIVE, INDIRECT, EXEMPLARY OR CONSEQUENTIAL DAMAGES, WHETHER SUCH DAMAGES ARE ALLOWED OR PROVIDED BY CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, STATUTE OR OTHERWISE.

#### SECTION 13: INSURANCE (FACILITIES OVER 200KW ONLY)

- 13.1 <u>Certificates</u>. Prior to connection of the Facility to PacifiCorp's electric system, or another utility's electric system if delivery to PacifiCorp is to be accomplished by wheeling, Seller shall secure and continuously carry insurance in compliance with the requirements of this Section. Seller shall provide PacifiCorp insurance certificate(s) (of "ACORD Form" or the equivalent) certifying Seller's compliance with the insurance requirements hereunder. Commercial General Liability coverage written on a "claims-made" basis, if any, shall be specifically identified on the certificate. If requested by PacifiCorp, a copy of each insurance policy, certified as a true copy by an authorized representative of the issuing insurance company, shall be furnished to PacifiCorp.
- 13.2 <u>Required Policies and Coverages</u>. Without limiting any liabilities or any other obligations of Seller under this Agreement, Seller shall secure and continuously carry with an insurance company or companies rated not lower than "A-:VII" by the A.M. Best Company the insurance coverage specified below:
  - 13.2.1 Commercial General Liability insurance, to include contractual liability, with a minimum single limit of \$1,000,000 to protect against and from all loss by reason of injury to persons or damage to property based upon and arising out of the activity under this Agreement.
  - 13.2.2 All Risk Property insurance providing coverage in an amount at least equal to the full replacement value of the Facility against "all risks" of physical loss or damage, including coverage for earth movement, flood, and boiler and machinery. The Risk policy may contain separate sublimits and deductibles subject to insurance company underwriting

guidelines. The Risk Policy will be maintained in accordance with terms available in the insurance market for similar facilities.

- 13.3 The Commercial General Liability policy required herein shall include i) provisions or endorsements naming PacifiCorp, its Board of Directors, Officers and employees as additional insureds, and ii) cross liability coverage so that the insurance applies separately to each insured against whom claim is made or suit is brought, even in instances where one insured claims against or sues another insured.
- 13.4 All liability policies required by this Agreement shall include provisions that such insurance is primary insurance with respect to the interests of PacifiCorp and that any other insurance maintained by PacifiCorp is excess and not contributory insurance with the insurance required hereunder, and provisions that such policies shall not be canceled or their limits of liability reduced without 1) ten (10) days prior written notice to PacifiCorp if canceled for nonpayment of premium, or 2) thirty (30) days prior written notice to PacifiCorp if canceled for any other reason.
- 13.5 Insurance coverage provided on a "claims-made" basis shall be maintained by Seller for a minimum period of five (5) years after the completion of this Agreement and for such other length of time necessary to cover liabilities arising out of the activities under this Agreement.

#### **SECTION 14: FORCE MAJEURE**

- 14.1 As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PacifiCorp which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of fuel or motive force resources to operate the Facility or changes in market conditions that affect the price of energy or transmission. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the event of Force Majeure, after which such Party shall re-commence performance of such obligation, provided that:
  - 14.1.1 the non-performing Party, shall, within two (2) weeks after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
  - 14.1.2 the suspension of performance shall be of no greater scope and of no longer duration than is required by the event of Force Majeure; and

- 14.1.3 the non-performing Party uses its best efforts to remedy its inability to perform.
- 14.2 No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the event of Force Majeure.
- 14.3 Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.
- 14.4 PacifiCorp may terminate the Agreement if Seller fails to remedy Seller's inability to perform, due to an event of Force Majeure, within six months after the occurrence of the event.

#### **SECTION 15: SEVERAL OBLIGATIONS**

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

#### **SECTION 16: CHOICE OF LAW**

This Agreement shall be interpreted and enforced in accordance with the laws of the State of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

#### **SECTION 17: PARTIAL INVALIDITY**

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

#### **SECTION 18: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

#### SECTION 19: GOVERNMENTAL JURISDICTIONS AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction,

operation and maintenance of the Facility, and shall provide upon request copies of the same to PacifiCorp.

#### **SECTION 20: REPEAL OF PURPA**

This Agreement shall not terminate upon the repeal of the PURPA, unless such termination is mandated by federal or state law.

#### **SECTION 21: SUCCESSORS AND ASSIGNS**

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld, conditioned or delayed. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent to a lender as part of a financing transaction or as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

#### **SECTION 22: ENTIRE AGREEMENT**

- 22.1 This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PacifiCorp's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 22.2 By executing this Agreement, Seller releases PacifiCorp from any claims, known or unknown, that may have arisen prior to the Effective Date.

#### **SECTION 23: NOTICES**

23.1 All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested.

Notices	PacifiCorp	Seller
All Notices	PacifiCorp	
	825 NE Multnomah Street Portland, OR 97232	
	Attn: Contract Administration, Suite 600 Phone: (503) 813 - 5952 Francisch (503) 813 - 6201	
	Facsimile: (503) 813 - 6291 Duns: 00-790-9013	
	Federal Tax ID Number: 93-0246090	
All Invoices:	(same as street address above)	
	Attn: Back Office, Suite 600 Phone: (503) 813 - 5585	

Notices	PacifiCorp	Seller
	Facsimile: (503) 813 – 5580	
Scheduling:	(same as street address above)	
	Attn: Resource Planning, Suite 600 Phone: (503) 813 - 6090 Facsimile: (503) 813 - 6265	
Payments:	(same as street address above)	
	Attn: Back Office, Suite 600 Phone: (503) 813 - 5585 Facsimile: (503) 813 - 5580	
Wire Transfer:	Bank One N.A. ABA: 071000013	
	ACCT: 55-44688	
	NAME: PacifiCorp Wholesale	
Credit and	(same as street address above)	
Collections:	Attn: Credit Manager, Suite 1800 Phone: (503) 813 - 5684 Facsimile: (503) 813 - 5609	
With Additional	(same as street address above)	
Notices of an Event of Default	Attn: General Counsel. and	
or Potential Event of	Legal Counsel	
Default to:	Phone: (503) 813-6266 and (801) 220-4568	
	Facsimile: (503) 813-7262 and (801) 220-3299	

23.2 The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 23.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in their respective names as of the date first above written.

<u>PacifiCorp</u>	<u>Seller</u>
By:	By:
Name:	Name:
Title:	Title:

## EXHIBIT A DESCRIPTION OF SELLER'S FACILITY [Seller to Complete]

Seller's Facility consists of More spe			
Whole spi	cerricarry, each gen	icrator at the racinty is describe	za as.
Type (synchronous or inductive	ve):		
Model:			
<b>Number of Phases:</b>			
Rated Output (kW):	Rated	l Output (kVA):	
Rated Voltage (line to line):		• ` ` /	
Rated Current (A): Stator:	A; Rotor:	A	
Maximum kW Output:			kVA
Minimum kW Output:		-	
<b>Manufacturer's Guaranteed C</b>	Cut-in Wind Speed	l [if applicable]:	
Facility Capacity Rating:	kW at		
Station service requirements, a as follows:		rved by the Facility, if any, ar	re described
Location of the Facility: The F County, follows:  [legal description of parce	Facility is to be con	structed in the vicinity ofcation is more particularly descri	in
Power factor requirements: Rated Power Factor (PF) or reac	ctive load (kVAR):		

#### **EXHIBIT B**

#### SELLER'S INTERCONNECTION FACILITIES

[Seller to provide its own diagram and description]

### POINT OF DELIVERY / SELLER'S INTERCONNECTION FACILITIES

#### Instructions to Seller:

- 1. Include description of point of metering, and Point of Delivery
- 2. Provide interconnection single line drawing of Facility including any transmission facilities on Seller's side of the Point of Delivery.

B - 1 1

## EXHIBIT C REQUIRED FACILITY DOCUMENTS

Interconnection Agreement, Wheeling Agreement [if applicable], and [others to be identified]

#### EXHIBIT D-1 SELLER'S MOTIVE FORCE PLAN

#### A. MONTHLY DELIVERY SCHEDULES AND SCHEDULED MAINTENANCE

Month	Average Energy (kWh)
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

Seller provide an estimate of the average monthly Net Output of the Facility, and explain the basis for the estimate.

#### B. MINIMUM ANNUAL DELIVERY CALCULATION

Seller specify the Minimum Annual Delivery of the Facility, and explain the basis for the estimate. NOTE: The Minimum Annual Delivery should be based on the most adverse natural motive force conditions reasonably expected and should take into account maintenance and Seller's load (if any).

#### C. MAXIMUM ANNUAL DELIVERY CALCULATION

Seller specify the estimated Maximum Annual Delivery of the Facility, and explain the basis for the estimate.

# EXHIBIT D-2 ENGINEER'S CERTIFICATION OF MOTIVE FORCE PLAN

<u>Seller provide a written declaration from a Licensed Professional Engineer to PacifiCorp that the Facility is likely capable under average conditions foreseeable during the term of this Agreement of meeting Seller's estimated average, maximum, and minimum Net Output.</u>

#### **EXHIBIT E**

#### START-UP TESTING

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable): [Seller identify appropriate tests]

- 1. Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments;
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PacifiCorp.

Required start-up tests are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PacifiCorp's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests;
- 4. Energization of transformers;
- 5. Synchronizing tests (manual and auto);
- 6. Stator windings dielectric test;
- 7. Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs;
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

E-1

## **EXHIBIT F SCHEDULE 37 and PRICING SUMMARY TABLE**

### OREGON SCHEDULE 37 Page 1

(N)

#### **Available**

To owners of Qualifying Facilities making sales of electricity to the Company in the State of Oregon.

#### **Applicable**

For power purchased from Qualifying Facilities with a nameplate capacity of 10,000 kW or less. Owners of these Qualifying Facilities will be required to enter into a written power sales contract with the Company.

#### **Definitions**

#### **Cogeneration Facility**

A facility which produces electric energy together with steam or other form of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes through the sequential use of energy.

#### **Qualifying Facilities**

Qualifying cogeneration facilities or qualifying small power production facilities within the meaning of section 201 and 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 U.S.C. 796 and 824a-3.

#### **Small Power Production Facility**

A facility which produces electric energy using as a primary energy source biomass, waste, renewable resources or any combination thereof and has a power production capacity which, together with other facilities located at the same site, is not greater than 80 megawatts.

#### On-Peak Hours or Peak Hours

On-peak hours are defined as 6:00 a.m. to 10:00 p.m. Pacific Prevailing Time Monday through Saturday, excluding NERC holidays.

Holidays include only New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. When a holiday falls on a Saturday or Sunday, the Friday before the holiday (if the holiday falls on a Saturday) or the Monday following the holiday (if the holiday falls on a Sunday) will be the holiday and will be Off-peak.

#### Off-Peak Hours

All hours other than On-Peak.

#### **Opal Gas Market Index**

The monthly indexed gas price shall be from Platts "Gas Daily Price Guide" for gas deliveries to Northwest Pipeline Corp at the Rocky Mountains.

#### **Excess Output**

Excess output shall mean any increment of Net Output delivered at a rate, on an hourly basis, exceeding the Facility Nameplate Capacity. PacifiCorp shall pay Seller the Off-peak Price for all Excess Output.

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#### **Pricing Options**

#### 1. Fixed Avoided Cost Prices

Prices are fixed at the time that the contract is signed by both the Qualifying Facility and the Company and will not change during the term of the contract. Fixed Avoided Cost Prices are available for a contract term of up to 15 years and prices under a longer term contract (up to 20 years) will thereafter be under either Banded Gas Market Indexed Avoided Cost Prices or Gas Market Indexed Avoided Cost Prices.

#### 2. Gas Market Indexed Avoided Cost Prices

Fixed prices apply during the resource sufficiency period (2005 through 2009), thereafter a portion of avoided cost prices are indexed to actual Opal monthly gas market index prices. The remaining portion of avoided cost prices will be fixed at the time that the contract is signed by both the Qualifying Facility and the Company and will not change during the term of the contract. Prices are available for a term of up to 20 years.

#### 3. Banded Gas Market Indexed Avoided Cost Prices

Fixed prices apply during the resource sufficiency period (2005 through 2009), thereafter a portion of avoided cost prices are indexed to actual Opal monthly gas market index prices. The remaining portion of avoided cost prices will be fixed at the time that the contract is signed by both the Qualifying Facility and the Company and will not change during the term of the contract. The gas indexed portion of the avoided cost prices are banded to limit the amount that prices can vary with changes in gas prices. Prices are available for a term of up to 20 years.

#### **Monthly Payments**

A Qualifying Facility shall select the option of payment at the time of signing the contract under one of three Pricing Options as specified above. Once an option is selected the option will remain in effect for the duration of the Facility's contract.

#### **Fixed Avoided Cost Prices**

In accordance with the terms of a contract with a Qualifying Facility, the Company shall pay for all separately metered kilowatt-hours of On-Peak and Off-Peak generation at the fixed prices as provided in this tariff. The definition of On-Peak and Off-Peak is as defined in the definitions section of this tariff.

#### **Gas Market Indexed Avoided Cost Prices**

In accordance with the terms of a contract with a Qualifying Facility, the Company shall pay for all separately metered kilowatt-hours of On-Peak and Off-Peak generation at On-Peak and Off-Peak prices calculated each month.

To calculate the Off-Peak price, multiply the Opal Gas Market Index price in \$/MMBtu by 0.76 to get actual gas price in cents/kWh. The Off-Peak Energy Adder is added to the actual gas price to get the Off-Peak Price.

The On-Peak price is the Off-Peak price plus the On-Peak Capacity Adder.

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#### **Monthly Payments (Continued)**

#### **Banded Gas Indexed Avoided Cost Prices**

In accordance with the terms of a contract with a Qualifying Facility, the Company shall pay for all separately metered kilowatt-hours of On-Peak and Off-Peak generation at On-Peak and Off-Peak prices calculated each month.

To calculate the Off-Peak price, multiply the Opal Gas Market Index price in \$/MMBtu by 0.76 to get actual gas price in cents/kWh. This price is banded such that the actual gas price shall be no lower than the Gas Market Index Floor nor greater than the Gas Market Index Ceiling as listed in the price section of this tariff. The Off-Peak Energy Adder is added to the actual gas price to get the Off-Peak Price.

The On-Peak price is the Off-Peak price plus the On-Peak Capacity Adder.

#### **Avoided Cost Prices**

Pricing Option 1 – Fixed Avoided cost Prices ¢/kWh

Deliveries	11000 Ç/K V	
During	On-Peak	Off-Peak
Calendar	Energy	Energy
Year	Price	Price
	(a)	(b)
2005	7.13	5.98
2006	6.36	5.27
2007	5.96	4.87
2008	5.58	4.63
2009	5.26	4.33
2010	6.21	4.30
2011	6.54	4.57
2012	7.13	5.11
2013	7.43	5.35
2014	7.52	5.37
2015	7.66	5.45
2016	7.86	5.59
2017	8.07	5.73
2018	8.27	5.86
2019	8.50	6.02
2020	8.72	6.17
2021	8.97	6.33
2022	9.23	6.49
2023	9.49	6.66
2024	9.75	6.82
2025	10.03	7.00
2026	10.31	7.18
2027	10.60	7.36
2028	10.90	7.55

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## OREGON SCHEDULE 37 Page 4

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**Avoided Cost Prices (Continued)** 

Pricing Option 2 – Gas Market Indexed Avoided Cost Prices ¢/kWh

Deliveries	Fixed Prices		Gas Marl	ket Index	Forecast	Estima	ated Prices (3)
During	On-Peak	Off-Peak	On-Peak	Off-Peak	Opal Gas	On-Peak	Off-Peak
Calendar	Energy	Energy	Capacity	Energy	Index Price (2)	Energy	Energy
Year	Price	Price	Adder (1)	Adder	\$/MMBtu	Price	Price
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
			Avoided Firm Capacity Costs / (0.876 * 84.2% * 57%)	Total Avoided Energy Costs - ((e) * 0.76)		(g) + (c)	((e) * 0.76) + (d)
2005	7.13	5.98					
2006	6.36	5.27	Market Ba	sed Prices			
2007	5.96	4.87	2005 thro	ugh 2009			
2008	5.58	4.63					
2009	5.26	4.33					
2010			1.91	0.38	\$5.16	6.21	4.30
2011			1.97	0.40	\$5.49	6.54	4.57
2012			2.02	0.42	\$6.17	7.13	5.11
2013			2.08	0.42	\$6.48	7.43	5.35
2014			2.14	0.42	\$6.51	7.52	5.37
2015			2.21	0.44	\$6.60	7.66	5.45
2016			2.27	0.45	\$6.77	7.86	5.59
2017			2.34	0.45	\$6.95	8.07	5.73
2018			2.41	0.45	\$7.12	8.27	5.86
2019			2.48	0.46	\$7.31	8.50	6.02
2020			2.55	0.47	\$7.50	8.72	6.17
2021			2.64	0.48	\$7.70	8.97	6.33
2022			2.73	0.49	\$7.90	9.23	6.49
2023			2.83	0.50	\$8.10	9.49	6.66
2024			2.93	0.51	\$8.31	9.75	6.82
2025			3.03	0.52	\$8.53	10.03	7.00
2026			3.13	0.53	\$8.75	10.31	7.18
2027			3.24	0.54	\$8.98	10.60	7.36
2028			3.35	0.55	\$9.21	10.90	7.55

- (1) Avoided Firm Capacity Costs are equal to the fixed costs of a SCCT as identified in the Company's 2004 IRP.
- (2) A heat rate of 0.76 is used to adjust gas prices from \$/MMBtu to  $\phi$ /kWh
- (3) Estimated avoided cost prices based upon forecast Opal Gas Market Index prices.
  Actual prices will be calculated each month using actual Opal Gas Market Index prices.

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## OREGON SCHEDULE 37 Page 5

**Avoided Cost Prices (Continued)** 

(N)

(i)

Pricing Option 3 – Banded Gas Market Indexed Avoided Cost Prices ¢/kWh									
Deliveries	es Fixed Prices Banded Gas Market Index Forecast Estimated Prices (3)								
During	On-Peak	Off-Peak	On-Peak	Off-Peak	Gas Mar	ket Index	Opal Gas	On-Peak	Off-Peak
Calendar	Energy	Energy	Capacity	Energy	Floor	Ceiling	Index Price (2)	Energy	Energy
Vear	Drice	Drice	Adder (1)	Adder	90%	110%	\$/MMRtu	Drice	Price

Avoided Firm Total MIN(MAX(((g) \*Capacity Costs Avoided (g) \* 0.76 \* (g) \* 0.76 \* (i) + (c) $0.76)\ , (e))\ , (f))\ +$ Energy Costs /(0.876 \* 110% 90% (d) 84.2% \* 57%) - ((e) \* 0.76)

(f)

20	005	7.13	5.98								
26	006	6.36	5.27		Market Based Prices						
20	007	5.96	4.87		2005 thro	ugh 2009					
20	800	5.58	4.63								
20	009	5.26	4.33								
20	010			1.91	0.38	3.53	4.31	\$5.16	6.21	4.30	1
20	)11			1.97	0.40	3.75	4.59	\$5.49	6.54	4.57	
20	012			2.02	0.42	4.22	5.16	\$6.17	7.13	5.11	
20	013			2.08	0.42	4.43	5.42	\$6.48	7.43	5.35	
20	)14			2.14	0.42	4.45	5.44	\$6.51	7.52	5.37	
20	)15			2.21	0.44	4.51	5.51	\$6.60	7.66	5.45	
20	16			2.27	0.45	4.63	5.66	\$6.77	7.86	5.59	
20	17			2.34	0.45	4.75	5.81	\$6.95	8.07	5.73	
20	018			2.41	0.45	4.87	5.96	\$7.12	8.27	5.86	
20	)19			2.48	0.46	5.00	6.11	\$7.31	8.50	6.02	
20	020			2.55	0.47	5.13	6.27	\$7.50	8.72	6.17	
20	021			2.64	0.48	5.27	6.44	\$7.70	8.97	6.33	
20	)22			2.73	0.49	5.40	6.60	\$7.90	9.23	6.49	
20	)23			2.83	0.50	5.54	6.77	\$8.10	9.49	6.66	
20	)24			2.93	0.51	5.69	6.95	\$8.31	9.75	6.82	
20	)25			3.03	0.52	5.83	7.13	\$8.53	10.03	7.00	
20	)26			3.13	0.53	5.99	7.32	\$8.75	10.31	7.18	
20	)27			3.24	0.54	6.14	7.51	\$8.98	10.60	7.36	
20	028			3.35	0.55	6.30	7.70	\$9.21	10.90	7.55	

- (1) Avoided Firm Capacity Costs are equal to the fixed costs of a SCCT as identified in the Company's 2004 IRP.
- (2) A heat rate of 0.76 is used to adjust gas prices from \$/MMBtu to ¢/kWh
- (3) Estimated avoided cost prices based upon forecast Opal Gas Market Index prices.
  Actual prices will be calculated each month using actual Opal Gas Market Index prices.

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#### Example of Pricing Options available to the Qualifying Facility

An example of the three pricing options using different assumed gas prices is available at the Company web site.

#### **Qualifying Facilities Contracting Procedure**

#### 1. Qualifying Facilities up to 10,000 kW

**APPLICATION:** To owners of existing or proposed QFs with a design capacity less than or equal to 10,000 kW who desire to make sales to the Company in the state of Oregon. Such owners will be required to enter into a written power purchase agreement with the Company pursuant to the procedures set forth below.

#### I. Process for Completing a Power Purchase Agreement

#### A. Communications

Unless otherwise directed by the Company, all communications to the Company regarding QF power purchase agreements should be directed in writing as follows:

Pacific Power & Light Company Manager-QF Contracts 825 NE Multnomah St, Suite 600 Portland, Oregon 97232

The Company will respond to all such communications in a timely manner. If the Company is unable to respond on the basis of incomplete or missing information from the QF owner, the Company shall indicate what additional information is required. Thereafter, the Company will respond in a timely manner following receipt of all required information.

#### B. Procedures

- 1. The Company's approved generic or standard form power purchase agreements may be obtained from the Company's website at <a href="www.pacificorp.com">www.pacificorp.com</a>, or if the owner is unable to obtain it from the website, the Company will send a copy within seven days of a written request.
- 2. In order to obtain a project specific draft power purchase agreement the owner must provide in writing to the Company, general project information required for the completion of a power purchase agreement, including, but not limited to:
  - a) demonstration of ability to obtain QF status;

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#### B. Procedures (Continued)

- design capacity (MW), station service requirements, and net amount of power to be delivered to the Company's electric system;
- generation technology and other related technology applicable to the site;
- d) proposed site location;
- e) schedule of monthly power deliveries;
- f) calculation or determination of minimum and maximum annual deliveries;
- g) motive force or fuel plan;
- h) proposed on-line date and other significant dates required to complete the milestones:
- i) proposed contract term and pricing provisions (i.e.,fixed, deadband, gas indexed);
- j) status of interconnection or transmission arrangements;
- k) point of delivery or interconnection;
- 3. The Company shall provide a draft power purchase agreement when all information described in Paragraph 2 above has been received in writing from the QF owner. Within 15 business days following receipt of all information required in Paragraph 2, the Company will provide the owner with a draft power purchase agreement including current standard avoided cost prices and/or other optional pricing mechanisms as approved by the Oregon Public Utilities Commission in this Schedule 37.
- 4. If the owner desires to proceed with the power purchase agreement after reviewing the Company's draft power purchase agreement, it may request in writing that the Company prepare a final draft power purchase agreement. In connection with such request, the owner must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft power purchase agreement.
- After reviewing the final draft power purchase agreement, the owner may either prepare another set of written comments and proposals or approve the final draft power purchase agreement. If the owner prepares written comments and proposals the Company will respond in 14 days to those comments and proposals.
- 6. When both parties are in full agreement as to all terms and conditions of the draft power purchase agreement, the Company will prepare and forward to the owner a final executable version of the agreement. Following the Company's execution a completely executed copy will be returned to the owner. Prices and other terms and conditions in the power purchase

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agreement will not be final and binding until the power purchase agreement has been executed by both parties.

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# PACIFIC POWER & LIGHT COMPANY AVOIDED COST PURCHASES FROM QUALIFYING FACILITIES OF GREATER THAN 10,000 KW

## OREGON SCHEDULE 38

Page 1

#### **Available**

To owners of Qualifying Facilities making sales of electricity to the Company in the State of Oregon.

#### **Applicable**

For power purchased from Qualifying Facilities with a nameplate capacity greater than 10,000 kW. Owners of these Qualifying Facilities will be required to enter into a negotiated written power purchase agreement with the Company. Pursuant to Order No. 05-584, the pricing options specified in Schedule 37 should serve as a starting point for prices under a negotiated power purchase agreement.

#### **Definitions**

#### **Cogeneration Facility**

A facility which produces electric energy together with steam or other form of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes through the sequential use of energy.

#### **Qualifying Facilities**

Qualifying cogeneration facilities or qualifying small power production facilities within the meaning of section 201 and 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 U.S.C. 796 and 824a-3.

#### **Small Power Production Facility**

A facility which produces electric energy using as a primary energy source biomass, waste, renewable resources or any combination thereof and has a power production capacity which, together with other facilities located at the same site, is not greater than 80 megawatts.

#### **On-Peak Hours or Peak Hours**

On-peak hours are defined as 6:00 a.m. to 10:00 p.m. Pacific Prevailing Time Monday through Saturday, excluding NERC holidays.

Holidays include only New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. When a holiday falls on a Saturday or Sunday, the Friday before the holiday (if the holiday falls on a Saturday) or the Monday following the holiday (if the holiday falls on a Sunday) will be the holiday and will be Off-peak.

#### Off-Peak Hours

All hours other than On-Peak.

#### **Excess Output**

Excess output shall mean any increment of Net Output delivered at a rate, on an hourly basis, exceeding the Facility Nameplate Capacity. PacifiCorp shall pay Seller the Off-peak Price for all Excess Output.

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# PACIFIC POWER & LIGHT COMPANY AVOIDED COST PURCHASES FROM QUALIFYING FACILITIES OF GREATER THAN 10,000 KW

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#### **Qualifying Facilities Contracting Procedure**

#### A. Communications

Unless otherwise directed by the Company, all communications to the Company regarding QF power purchase agreements should be directed in writing as follows:

Pacific Power & Light Company Manager-QF Contracts 825 NE Multnomah St, Suite 600 Portland, Oregon 97232

The Company will respond to all such communications in a timely manner. If the Company is unable to respond on the basis of incomplete or missing information from the QF owner, the Company shall indicate what additional information is required. Thereafter, the Company will respond in a timely manner following receipt of all required information.

#### B. Procedures

- 1. The Company's proposed generic power purchase agreement may be obtained from the Company's website at <a href="www.pacificorp.com">www.pacificorp.com</a>, or if the owner is unable to obtain it from the website, the Company will send a copy within seven days of a written request."
- 2. To obtain an indicative pricing proposal with respect to a proposed project, the owner must provide in writing to the Company, general project information reasonably required for the development of indicative pricing, including, but not limited to:
  - a) generation technology and other related technology applicable to the site
  - b) design capacity (MW), station service requirements, and net amount of power to be delivered to the Company's electric system
  - quantity and timing of monthly power deliveries (including project ability to respond to dispatch orders from the Company)
  - d) proposed site location and electrical interconnection point
  - e) proposed on-line date and outstanding permitting requirements
  - f) demonstration of ability to obtain QF status
  - g) fuel type (s) and source (s)
  - h) plans for fuel and transportation agreements
  - proposed contract term and pricing provisions (i.e., fixed, deadband, gas indexed)
  - j) status of interconnection arrangements

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# PACIFIC POWER & LIGHT COMPANY AVOIDED COST PURCHASES FROM QUALIFYING FACILITIES OF GREATER THAN 10.000 KW

## OREGON SCHEDULE 38

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#### B. Procedures (Continued)

- The Company shall not be obligated to provide an indicative pricing proposal until all information described in Paragraph 2 has been received in writing from the QF owner. Within 30 days following receipt of all information required in Paragraph 2, the Company will provide the owner with an indicative pricing proposal, which may include other indicative terms and conditions, tailored to the individual characteristics of the proposed project. Such proposal may be used by the owner to make determinations regarding project planning, financing and feasibility. However, such prices are merely indicative and are not final and binding. Prices and other terms and conditions are only final and binding to the extent contained in a power purchase agreement executed by both parties. The Company will provide with the indicative prices a description of the methodology used to develop the prices. Prices specified in Schedule 37 will provide a starting point for negotiated prices, and will be modified to address specific factors mandated by federal and state law, including the following factors, to the extent practicable:
  - a) The data provided pursuant to 18 CFR § 292.302(b), (c), or (d), including State review of any such data;
  - b) The availability of capacity or energy from a qualifying facility during the system daily and seasonal peak periods, including:
    - i. The ability of PacifiCorp to dispatch the qualifying facility;
    - ii. The expected or demonstrated reliability of the qualifying facility;
    - iii. The terms of any contract or other legally enforceable obligation, including the duration of the obligation, termination notice requirement and sanctions for non-compliance:
    - iv. The extent to which scheduled outages of the qualifying facility can be usefully coordinated with scheduled outages of PacifiCorp's facilities;
    - v. The usefulness of energy and capacity supplied from a qualifying facility during system emergencies, including its ability to separate its load from its generation;
    - vi. The individual and aggregate value of energy and capacity from qualifying facilities on PacifiCorp's system; and
    - vii. The smaller capacity increments and the shorter lead times available with additions of capacity from qualifying facilities; and
  - c) The relationship of the availability of energy or capacity from the qualifying facility as derived in part (3) (b) of this Paragraph, to the ability of PacifiCorp to avoid costs, including the deferral of capacity additions and the reduction of fossil fuel use; and
  - d) The costs or savings resulting from variations in line losses from those that would have existed in the absence of purchases from a qualifying facility, if PacifiCorp generated an equivalent amount of energy itself or purchased an equivalent amount of electric energy or capacity.

(Continued)

(N)

Issued: July 12, 2005 Effective: With service r

With service rendered on and after

Original Sheet No. 38-3

P.U.C. OR No. 35

August 11, 2005

Issued By

D. Douglas Larson, Vice President, Regulation

TF1 38-3.NEW

### PACIFIC POWER & LIGHT COMPANY AVOIDED COST PURCHASES FROM QUALIFYING FACILITIES OF GREATER THAN 10.000 KW

## OREGON **SCHEDULE 38**

Page 4

(N)

#### B. **Procedures (Continued)**

- If the owner desires to proceed forward with the project after reviewing the Company's indicative proposal, it may request in writing that the Company prepare a draft power purchase agreement to serve as the basis for negotiations between the parties. In connection with such request, the owner must provide the Company with any additional project information that the Company reasonably determines to be necessary for the preparation of a draft power purchase agreement, which may include, but shall not be limited to:
  - updated information of the categories described in Paragraph B.2, a)
  - b) evidence of adequate control of proposed site
  - identification of, and timelines for obtaining any necessary governmental c) permits, approvals or authorizations
  - d) assurance of fuel supply or motive force
  - e) anticipated timelines for completion of key project milestones
  - f) evidence that any necessary interconnection studies have been completed and assurance that the necessary interconnection arrangements are being made in accordance with Part II.
- 5. The Company shall not be obligated to provide the owner with a draft power purchase agreement until all information required pursuant to Paragraph 4 has been received by the Company in writing. Within 30 days following receipt of all information required pursuant to paragraph 4, the Company shall provide the owner with a draft power purchase agreement containing a comprehensive set of proposed terms and conditions, including a specific pricing proposal for purchases from the project. Such draft shall serve as the basis for subsequent negotiations between the parties and, unless clearly indicated, shall not be construed as a binding proposal by the Company.
- 6. After reviewing the draft power purchase agreement, the owner may prepare an initial set of written comments and proposals regarding the draft power purchase agreement and forward such comments and proposals to the Company. The Company shall not be obligated to commence negotiations with a QF owner until the Company has received an initial set of written comments and proposals from the QF owner. Following the Company's receipt of such comments and proposals, the owner may contact the Company to schedule contract negotiations at such times and places as are mutually agreeable to the parties. In connection with such negotiations, the Company:
  - will not unreasonably delay negotiations and will respond in good faith to any a) additions, deletions or modifications to the draft power purchase agreement that are proposed by the owner
  - b) may request to visit the site of the proposed project if such a visit has not previously occurred

(Continued)

(N)

July 12, 2005 Issued: Effective:

P.U.C. OR No. 35

With service rendered on and after

Original Sheet No. 38-4

August 11, 2005

Issued By

D. Douglas Larson, Vice President, Regulation

TF1 38-4.NEW

# PACIFIC POWER & LIGHT COMPANY AVOIDED COST PURCHASES FROM QUALIFYING FACILITIES OF GREATER THAN 10,000 KW

## OREGON SCHEDULE 38

Page 5

#### B. Procedures (Continued)

- will update its pricing proposals at appropriate intervals to accommodate any changes to the Company's avoided-cost calculations, the proposed project or proposed terms of the draft power purchase agreement
- d) may request any additional information from the owner necessary to finalize the terms of the power purchase agreement and satisfy the Company's due diligence with respect to the project.
- 7. When both parties are in full agreement as to all terms and conditions of the power purchase agreement, the Company will prepare and forward to the owner a final, executable version of the agreement. Prices and other terms and conditions in the power purchase agreement will not be final and binding until the power purchase agreement has been executed by both parties.

(N)

(N)

Issued: July 12, 2005 P.U.C. OR No. 35
Effective: With service rendered on and after Original Sheet No. 38-5

August 11, 2005

Issued By
D. Douglas Larson, Vice President, Regulation

TF1 38-5.NEW

### CERTIFICATE OF SERVICE

I hereby certify that on this 12th day of July, 2005, I caused to be served, via US Mail or email to those with an email address, a true and correct copy of PacifiCorp's filing in Docket No. UM-1129.

R THOMAS BEACH CONFIDENTIAL CROSSBORDER ENERGY 2560 NINTH ST, STE 316 BERKELEY CA 94710 tomb@crossborderenergy.com	JIM FELL STOEL RIVES 900 SW FIFTH AVENUE, SUITE 2600 PORTLAND OR 97204 jrboose@stoel.com
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CAREL DE WINKEL OREGON DEPARTMENT OF ENERGY 625 MARION STREET NE SALEM OR 97301 carel.dewinkel@state.or.us	CRAIG DEHART MIDDLEFORK IRRIGATION DISTRICT PO BOX 291 PARKDALE OR 97041 mfidcraig@hoodriverelectric.net
ELIZABETH DICKSON HURLEY, LYNCH & RE, PC 747 SW MILL VIEW WAY BEND OR 97702 eadickson@hlr-law.com	J RICHARD GEORGE CONFIDENTIAL PORTLAND GENERAL ELECTRIC COMPANY 121 SW SALMON ST PORTLAND OR 97204 richard.george@pgn.com
THOMAS M GRIM CABLE HUSTON BENEDICT ET AL 1001 SW FIFTH AVE STE 2000 PORTLAND OR 97204-1136 tgrim@chbh.com	DAVID HAWK J R SIMPLOT COMPANY PO BOX 27 BOISE ID 83707 david.hawk@simplot.com
STEVEN C JOHNSON CENTRAL OREGON IRRIGATION DISTRICT 2598 NORTH HIGHWAY 97 REDMOND OR 97756 stevej@coid.org	BARTON L KLINE IDAHO POWER COMPANY PO BOX 70 BOISE ID 83707-0070 bkline@idahopower.com
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MONICA B MOEN IDAHO POWER COMPANY PO BOX 70 BOISE ID 83707-0070 mmoen@idahopower.com	JANET L PREWITT DEPARTMENT OF JUSTICE 1162 COURT ST NE SALEM OR 97301-4096 janet.prewitt@doj.state.or.us
PETER J RICHARDSON RICHARDSON & O'LEARY PO BOX 7218 BOISE ID 83707 peter@richardsonandoleary.com	IRION SANGER CONFIDENTIAL DAVISON VAN CLEVE 333 SW TAYLOR, STE 400 PORTLAND OR 97204 ias@dvclaw.com

MARK TALLMAN DONALD W SCHOENBECK -- CONFIDENTIAL REGULATORY & COGENERATION SERVICES INC **PACIFICORP** 825 MULTNOMAH STE 800 900 WASHINGTON ST STE 780 VANCOUVER WA 98660-3455 PORTLAND OR 97232-2153 dws@r-c-s-inc.com mark.tallman@pacificorp.com S BRADLEY VAN CLEVE -- CONFIDENTIAL MICHAEL T WEIRICH -- CONFIDENTIAL DEPARTMENT OF JUSTICE REGULATED UTILITY & BUSINESS SECTION DAVISON VAN CLEVE PC 333 SW TAYLOR, STE 400 1162 COURT ST NE PORTLAND OR 97204 mail@dvclaw.com SALEM OR 97301-4096 michael.weirich@state.or.us LINDA K WILLIAMS PAUL WOODIN WESTERN WIND POWER KAFOURY & MCDOUGAL 10266 SW LANCASTER RD 282 LARGENT LN PORTLAND OR 97219-6305 **GOLDENDALE WA 98620** pwoodin@gorge.net linda@lindawilliams.net LAURA BEANE PACIFIC POWER & LIGHT 825 NE MULTNOMAH STE 800 PORTLAND OR 97232 paul.wrigley@pacificorp.com

Debbie DePetris
Regulatory Operations Coordinator

## UM 1931 PGE Exhibit 104

Idaho Power's July 12, 2005 compliance filing in Docket No. UM 1129 responding to Order 05-584



IDAHO POWER COMPANY P.O. BOX 70 BOISE, IDAHO 83707 MONICA B. MOEN Senior Attorney

July 12, 2005

Public Utility Commission of Oregon Attn: Filing Center 550 Capitol Street NE, Suite 215 P.O. Box 2148 Salem, OR 97308-2148

Re:

Docket No. UM 1129

Dear Sir or Madam:

Enclosed please find Idaho Power Company's Application regarding the above-described docket.

Very truly yours,

Monica B. Moen

Monica B. Moy

MBM:jb Enclosure

c: Service List

## OF OREGON

Docket No. UM 1129

In the Matter of	)
PUBLIC UTILITY COMMISSION OF OREGON	APPLICATION OF IDAHO POWER COMPANY
Staff's Investigation Relating to Electric Utility Purchases from Qualifying Facilities	, ) Advice No. 05-06 ) ) )

Idaho Power Company ("Idaho Power" or "Company"), in accordance with the provisions of OAR 860-013-0010 and Order No. 05-584 entered by the Public Utility Commission of Oregon ("Commission") on May 13, 2005, hereby submits its Standard Contract setting forth the standard rates, terms and conditions consistent with the policy decisions made in Order No. 05-584 as well as Idaho Power's Schedule 85, Cogeneration and Small Power Production Standard Contract Rates." This filing implements the resolutions made in Order No. 05-584.

By way of this Application, Idaho Power also respectfully requests that the Commission cancel Idaho Power's Schedule 86, "Cogeneration and Small Power Production Non-Firm Energy."

#### NOTICES

In accordance with OAR 860-013-0070, Idaho Power waives service by means other than by electronic mail. Consistent with that waiver, Idaho Power requests that the following receive notices and communications in respect to this Application:

Barton L. Kline Senior Attorney Idaho Power Company P.O. Box 70 Boise, ID 83707-0070 bkline@idahopower.com

Lisa F. Rackner Ater Wynne LLP 222 S.W. Columbia Suite 1800 Portland, OR 97201-6618 Ifr@aterwynne.com

Joanne M. Butler Legal Administrative Assistant Idaho Power Company P.O. Box 70 Boise, ID 83707-0070 ibutler@idahopower.com Randy Allphin Contract Administrator Power Supply Planning Idaho Power Company P.O. Box 70 Boise, ID 83707-0070 rallphin@idahopower.com

Karl Bokenkamp
General Manager
Power Supply Planning
Idaho Power Company
P.O. Box 70
Boise, ID 83707-0070
kbokenkamp@idahopower.com

Michael Youngblood Regulatory Affairs Representative Pricing and Regulatory Dept. Idaho Power Company P.O. Box 70 Boise, ID 83707-0070 myoungblood@idahopower.com

WHEREFORE, Idaho Power respectfully requests that, (1) consistent with the terms of Order No. 05-584, the Standard Contract and Schedule 85, attached hereto as Attachments 1 and 2, respectively, become effective thirty (30) days after the date of

filing, unless otherwise suspended by the Commission and (2) Schedule 86, attached hereto as Attachment 3, be canceled by the Commission.

Respectfully submitted this 12<sup>th</sup> day of July 2005.

Monica B. Moen Idaho Power Company 1221 West Idaho Street (83702) P.O. Box 70 Boise, ID 83701 (208) 388-2682 (208) 388-6936 (FAX) BKline@idahopower.com

Monica B Moer

Lisa F. Rackner
Ater Wynne LLP
222 S.W. Columbia Street, Suite 1800
Portland, OR 97201-6618
(503) 226-8693
(503) 226-0079 (FAX)
Ifr@aterwynne.com
Attorneys for Idaho Power Company

#### **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that on this 12<sup>th</sup> day of July 2005, I served a true and correct copy of the within and foregoing Application upon the following named parties by the method(s) indicated below, and addressed to the following:

R. THOMAS BEACH – CONFIDENTIAL CROSSBORDER ENERGY 2560 NINTH ST, STE 316 BERKELEY CA 94710 tomb@crossborderenergy.com	<u>x</u> <u>x</u>	Hand Delivered U.S. Mail Overnight Mail FAX E-mail
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JACK BREEN PUBLIC UTILITY COMMISSION PO BOX 2148 SALEM OR 97308-2148 jack.breen@state.or.us		Hand Delivered U.S. Mail Overnight Mail FAX E-mail
BRIAN COLE SYMBIOTICS, LLC PO BOX 1088 BAKER CITY OR 97814 bc@orbisgroup.org	x	Hand Delivered U.S. Mail Overnight Mail FAX E-mail
BRUCE CRAIG ASCENTERGY CORP 440 BENMAR DR STE 2230 HOUSTON TX 77060 bcraig@asc-co.com	x	Hand Delivered U.S. Mail Overnight Mail FAX E-mail
CHRIS CROWLEY COLUMBIA ENERGY PARTNERS PO BOX 1000 LA CENTER WA 98629 ccrowley@columbiaep.com		Hand Delivered U.S. Mail Overnight Mail FAX E-mail
CAREL DE WINKEL OREGON DEPARTMENT OF ENERGY 625 MARION STREET NE SALEM OR 97301 carel.dewinkel@state.or.us		Hand Delivered U.S. Mail Overnight Mail FAX E-mail
CRAIG DEHART		Hand Delivered

MIDDLEFORK IRRIGATION DISTRICT PO BOX 291 PARKDALE OR 97041 mfidcraig@hoodriverelectric.net	X 	U.S. Mail Overnight Mail FAX E-mail
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JANET L PREWITT	x	U.S. Mail

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	Monica B. Thoa
	MONICA B. MOEN
	Attorney for Idaho Power Company

## **ATTACHMENT 1**

## ENERGY SALES AGREEMENT BETWEEN

### IDAHO POWER COMPANY

AND

#### TABLE OF CONTENTS

<u>Article</u>	TITLE			
1	Definitions			
2	No Reliance on Idaho Power			
3	Warranties			
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5	Term and Operation Date			
6	Purchase and Sale of Net Energy			
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	Appendix A			
	Appendix B			
	Appendix C			

## ENERGY SALES AGREEMENT (10 MW or Less)

	Project Number:			
	THIS AGREEMENT, entered into on this	day of	20	_ between
	, a	com	pany (Seller	r), and IDAHO
POWI	ER COMPANY, an Idaho corporation (Idaho Pov	wer), hereinafter so	ometimes re	ferred to collectively
as "Pa	arties" or individually as "Party."			
	WITNESS	SETH:		
	WHEREAS, Seller will design, construct, own,	, maintain and ope	rate an elect	tric generation
facilit	y; and			
	WHEREAS, Seller wishes to sell, and Idaho Po	ower is willing to	purchase, ele	ectric energy
produ	ced by the Seller's Facility.			
•	THEREFORE, In consideration of the mutual of	covenants and agre	eements here	einafter set forth, the
Partie:	s agree as follows:			,
- 0.1010	ARTICLE I: DE	FINITIONS		
	As used in this Agreement and the appendi		o the follow	ving terms
chall k	nave the following meanings:	icos acacinea nerec	o, me 10110 v	ving terms
1.1		mmission		
	"Commission" - The Oregon Public Utility Commission.  "Contract Year" - The period commencing each calendar year on the same calendar date as the			
1.2	-	-	tne same ca	alendar date as the
	Operation Date and ending 364 days thereafter.			
1.3	" <u>Designated Dispatch Facility</u> " - Idaho Power's	s Systems Operati	ons Group,	or any subsequent
	group designated by Idaho Power.			
1.4	"Facility" - That electric generation facility des	scribed in Append	ix B of this A	Agreement.
1.5	"First Energy Date" - The day commencing at 0	0001 hours, Moun	tain Time, f	ollowing the day that
	Seller has satisfied the requirements of Article	IV and the Seller	begins deliv	ering energy to

Idaho Power's system at the Point of Delivery.

- 1.6 "Generation Interconnection Process" Idaho Power's generation interconnection application and engineering review process developed to ensure a safe and reliable generation interconnection in compliance with all applicable regulatory requirements, Prudent Electrical Practices and national safety standards.
- 1.7 "Losses" The loss of electrical energy expressed in kilowatt hours (kWh) occurring as a result of the transformation and transmission of energy between the point where the Facility's energy is metered and the point the Facility's energy is delivered to the Idaho Power electrical system. The loss calculation formula will be as specified in Appendix B of this Agreement.
- "Market Energy Cost" Eighty-five percent (85%) of the weighted average of the daily on-peak and off-peak Dow Jones Mid-Columbia Index (Dow Jones Mid-C Index) prices for non-firm energy. If the Dow Jones Mid-Columbia Index price is discontinued by the reporting agency, both Parties will mutually agree upon a replacement index, which is similar to the Dow Jones Mid-Columbia Index. The selected replacement index will be consistent with other similar agreements and a commonly used index by the electrical industry.
- 1.9 "Material Breach" A Default (paragraph 18.2.1) subject to paragraph 18.2.2.
- 1.10 "Nameplate Capacity" The generation capacity (MW) of the Facility as rated by the manufacturer and verified in accordance with paragraph 4.1.2. The Nameplate Capacity may not exceed 10 MW.
- 1.11 "Net Energy" Electric energy produced by the Facility, less Station Use and Losses, expressed in kilowatt hours (kWh) that is less than or equal to the Nameplate Capacity that Seller commits to deliver to Idaho Power at the Point of Delivery for the full term of the Agreement.
- 1.12 "Net Energy Amounts" Monthly Net Energy amounts that the Seller estimates the Facility will deliver to Idaho Power at the Point of Delivery. The Seller shall use all available information (equipment characteristics, resource characteristics and data, Facility design, etc) to accurately estimate the Monthly Net Energy Amounts. These Net Energy Amounts as specified in paragraph 6.2.1 will be used to calculate the monthly Shortfall Energy quantities within this Agreement.

- 1.13 "Operation Date" The day commencing at 0001 hours, Mountain Time, following the day that all requirements of paragraph 5.2 have been completed.
- 1.14 "<u>Point of Delivery</u>" The location specified in Appendix B, where Idaho Power's and the Seller's electrical facilities are interconnected.
- 1.15 "Prudent Electrical Practices" Those practices, methods and equipment that are commonly and ordinarily used in electrical engineering and operations to operate electric equipment lawfully, safely, dependably, efficiently and economically.
- 1.16 "Schedule 85" Idaho Power's Oregon Tariff No E-25, Schedule 85, dated *mm/dd/yy* or its successor schedules as approved by the Commission.
- 1.17 "Scheduled Operation Date" The date specified in Appendix B when Seller anticipates achieving the Operation Date.
- 1.18 "Season" The three periods identified in Schedule 85.
- 1.19 "Shortfall Energy" The difference (kWh) between the monthly actual Net Energy delivered toIdaho Power and the Monthly Net Energy Amounts specified in paragraph 6.2 of this Agreement.
- 1.20 "<u>Station Use</u>" Electric energy that is used to operate equipment that is auxiliary or otherwise related to the production of electricity by the Facility.
- 1.21 "Surplus Energy" (1) All Net Energy produced by the Seller's Facility and delivered by the Facility to the Idaho Power electrical system that exceeds the Nameplate Capacity of the Facility but is less than the Maximum Capacity of the Facility or (2) All Net Energy produced by the Seller's Facility and delivered by the Facility to the Idaho Power electrical system prior to the Operation Date and is less than the Maximum Capacity of the Facility.
- 1.22 "Total Cost of the Facility" The total cost of structures, equipment and appurtenances.

#### ARTICLE II: NO RELIANCE ON IDAHO POWER

2.1 <u>Seller Independent Investigation</u> - Seller warrants and represents to Idaho Power that in entering into this Agreement and the undertaking by Seller of the obligations set forth herein, Seller has investigated and determined that it is capable of performing hereunder and has not relied upon

- the advice, experience or expertise of Idaho Power in connection with the transactions contemplated by this Agreement.
- 2.2 <u>Seller Independent Experts</u> All professionals or experts including, but not limited to, engineers, attorneys or accountants, that Seller may have consulted or relied on in undertaking the transactions contemplated by this Agreement have been solely those of Seller.

#### ARTICLE III: WARRANTIES

- 3.1 No Warranty by Idaho Power Any review, acceptance or failure to review Seller's design, specifications, equipment or facilities shall not be an endorsement or a confirmation by Idaho Power and Idaho Power makes no warranties, expressed or implied, regarding any aspect of Seller's design, specifications, equipment or facilities, including, but not limited to, safety, durability, reliability, strength, capacity, adequacy or economic feasibility.
- 3.2 Qualifying Facility Status Seller warrants that the Facility is a "Qualifying Facility," as that term is used and defined in 18 CFR §292.207. Seller's failure to maintain the Facility and operations of the Facility in a manner consistent with the initial Qualifying Facility certificate will be a Material Breach of this Agreement. Idaho Power reserves the right to review the Seller's Qualifying Facility status and associated support and compliance documents at anytime during the term of this Agreement.
- 3.3 <u>FERC License</u> (only applies to hydro projects)- Seller warrants that Seller possesses a valid license or exemption from licensing from the Federal Energy Regulatory Commission ("FERC") for the Facility. Seller recognizes that Seller's possession and retention of a valid FERC license or exemption is a material part of the consideration for Idaho Power's execution of this Agreement. Seller will take such steps as may be required to maintain a valid FERC license or exemption for the Facility during the term of this Agreement, and Seller's failure to maintain a valid FERC license or exemption will be a material breach of this Agreement.

#### ARTICLE IV: CONDITIONS TO ACCEPTANCE OF ENERGY

- 4.1 Prior to the First Energy Date and as a condition of Idaho Power's acceptance of deliveries of energy from the Seller, Seller shall:
  - 4.1.1 Submit proof to Idaho Power that all licenses, permits or approvals necessary for Seller's operations have been obtained from applicable federal, state or local authorities, including, but not limited to, evidence of compliance with Subpart B, 18 CFR 292.207.
  - 4.1.2 Nameplate Capacity Determination Submit to Idaho Power such data as Idaho Power may reasonably require to confirm the manufacturer's Nameplate Capacity rating of the Facility. Such data will include but not be limited to, equipment specifications, power factor assumptions, and any other data that would allow Idaho Power to verify the manufacturer's nameplate rating of this Facility. Upon receipt of this information, Idaho Power will review the provided data and if necessary, request additional data to complete the verification process within a reasonable time.
  - 4.1.3 Engineer's Certifications Submit an executed Engineer's Certification of Design & Construction Adequacy and an Engineer's Certification of Operations and Maintenance (O&M) Policy. These certificates will be in the form specified in Appendix C but may be modified to the extent necessary to recognize the different engineering disciplines providing the certificates.
  - 4.1.4 Insurance Submit written proof to Idaho Power of all insurance required in Article XI.
  - 4.1.5 <u>Interconnection</u> Provide written proof to Idaho Power that all Generation Interconnection Process requirements have been completed. The entire completed Generation Interconnection Process, including, but not limited to, the equipment specifications and requirements will be included by reference in this Agreement.
  - 4.1.6 <u>Security Requirements</u> Provide Idaho Power with commercially reasonable representations and warranties and other documentation to determine the Seller's creditworthiness. Such documentation would include, at a minimum, that the Seller is current on existing debt obligations and has not been a debtor in a bankruptcy preceding

within the preceding two years. Upon receipt of this information, Idaho Power will review the provided data and, if necessary, request additional data and/or will provide written confirmation or rejection of the provided data within a reasonable time. In lieu of providing evidence of acceptable creditworthiness, the Seller may provide Idaho Power with commercially reasonable security instruments such as letter of credit, senior lien rights, step-in-rights, escrow accounts or other forms of liquid financial security that would provide readily available cash to Idaho Power in the Event of a Default under this Agreement.

4.1.7 <u>Written Acceptance</u> – Request and obtain written confirmation from Idaho Power that all conditions to acceptance of energy have been fulfilled. Such written confirmation shall be provided within a commercially reasonable time following the Seller's request and will not be unreasonably withheld by Idaho Power.

#### ARTICLE V: TERM AND OPERATION DATE

- 5.1 <u>Term</u> Subject to the provisions of paragraph 5.2 below, this Agreement shall become effective on the date first written and shall continue in full force and effect for a period of \_\_\_\_\_ (not to exceed 20 years) Contract Years from the Operation Date.
- 5.2 Operation Date The Operation Date may occur only after the Facility has achieved all of the following:
  - a) Achieved the First Energy Date.
  - b) Seller has demonstrated to Idaho Power's satisfaction that the Facility is complete and able to provide energy in a consistent, reliable and safe manner.
  - c) Seller has requested an Operation Date from Idaho Power in a written format.
  - d) Seller has received written confirmation from Idaho Power of the Operation Date.
     This confirmation will not be unreasonably withheld by Idaho Power.
- 5.3 If the Seller fails to achieve the Operation Date within 30 days of the Scheduled Operation Date,Seller will reimburse Idaho Power for any Shortfall Energy Repayment Amount accruing from 30

days following the Scheduled Operation Date until the Seller achieves the Operation Date. Such reimbursement shall be determined in the manner described in paragraph 7.3, 7.4 and 7.5 of this Agreement.

5.4 Seller's failure to achieve the Operation Date within ten (10) months of the Scheduled Operation

Date will be an Event of Default.

#### ARTICLE VI: PURCHASE AND SALE OF NET ENERGY

- 6.1 <u>Delivery and Acceptance of Net Energy</u> Except when either Party's performance is excused as provided herein, Idaho Power will purchase and Seller will sell all of the Net Energy to Idaho Power at the Point of Delivery.
- 6.2 <u>Net Energy Amounts</u> Seller intends to produce and deliver Net Energy in the following monthly amounts:

#### 6.2.1 Monthly Net Energy Amounts:

	<b>Month</b>	<u>kWh</u>
Season 1	March	XXXXX
Season 1	April May	XXXXX
	July	XXXXX
	August	XXXXX
Season 2	November	XXXXX
	December	XXXXX
	June	XXXXX
	September	XXXXX
Season 3	October	XXXXX
	January	XXXXX
	February	XXXXX

#### 6.2.2 Seller's Adjustment of Monthly Net Energy Amounts –

6.2.2.1 No later than the Operation Date, by written notice given to Idaho Power in accordance with paragraph 23.1, the Seller may revise all of the previously provided Monthly Net Energy Amounts.

- 6.2.2.2 At any time, by written notice given to Idaho Power in accordance with paragraph 23.1, Seller may revise all of the previously provided Monthly Net Energy Amounts, beginning with the next calendar year for the remaining term of the agreement.
- 6.3 Unless excused by an event of Force Majeure, Seller's failure to deliver Net Energy in any Contract Year in an amount equal to at least ten percent (10%) of the sum of the Net Energy Amounts as specified in paragraph 6.2 shall constitute an Event of Default and may result in termination of this Agreement.

#### ARTICLE VII: PURCHASE PRICE AND METHOD OF PAYMENT

- Net Energy Purchase Price The Seller has selected option \_\_\_\_\_\_ from Schedule 85 as the purchase price for the first 15 Contract Years of this Agreement. For all Net Energy delivered to Idaho Power after the first 15 Contract Years and for the remaining term of this Agreement, the Seller has selected option \_\_\_\_\_\_ from Schedule 85 as the purchase price. The Seller may not select Option 1, Fixed Price Method, for any Contract Years past the first 15 Contract Years. The Net Energy Purchase Price shall be calculated as specified in Schedule 85 for the option(s) selected by the Seller resulting in an on-peak and off-peak Net Energy Purchase Price which will be applied to the applicable energy deliveries during on-peak and off-peak hours as defined by the North American Electric Reliability Council (NERC).
- 7.2 <u>Surplus Energy Price</u> For all Surplus Energy, Idaho Power shall pay to the Seller the current month's Schedule 85, Option 1 (Fixed Price Method), Off-peak energy price.
- 7.3 Shortfall Energy Repayment Price If the current month's Market Energy Cost is greater than the current month's Net Energy Purchase Price, the Shortfall Energy Repayment Price will be determined by subtracting the current month's Market Energy Cost from the current month's Net Energy Purchase Price. If the result of this subtraction is less than 0, then the Shortfall Energy Repayment Price is 0.

- 7.4 <u>Shortfall Energy Repayment Amount</u> Current month's Shortfall Energy multiplied by the Shortfall Energy Repayment Price.
- 7.5 Shortfall Energy Repayment Schedule By January 31 of the following calendar year, Idaho Power will accumulate all of the previous year's monthly Shortfall Energy Repayment Amounts. The accumulated Shortfall Energy Repayment Amount will then be offset in equal monthly amounts against the next 36 monthly Net Energy payments to the Seller. An annual interest rate of 7.8% will be applied to the unamortized balance of the accumulated Shortfall Energy Repayment Amount at the end of each month. The Seller may at any time pay Idaho Power the outstanding balance of the accumulated Shortfall Energy Repayment Amount, including any interest that has accumulated.
- 7.6 Payment Due Date Energy payments to the Seller will be disbursed within 30 days of the date which Idaho Power receives and accepts the documentation of the monthly Net Energy actually produced by the Seller's Facility and delivered to Idaho Power as specified in Appendix A.

#### ARTICLE VIII: ENVIRONMENTAL ATTRIBUTES

8.1 Idaho Power waives any claim to ownership of Environmental Attributes. Environmental Attributes include, but are not limited to, Green Tags, Green Certificates, Renewable Energy Credits (RECs) and Tradable Renewable Certificates (TRCs) directly associated with the production of energy from the Seller's Facility.

#### **ARTICLE IX - RECORDS**

- 9.1 <u>Maintenance of Records</u> Seller shall maintain at the Facility or such other location mutually acceptable to the Parties adequate total generation, Net Energy, Station Use and maximum generation (kW) records in a form and content recommended by Idaho Power.
- 9.2 <u>Inspection</u> Either Party, after reasonable notice to the other Party, shall have the right, during normal business hours, to inspect and audit any or all generation, Net Energy, Station Use and maximum generation (kW) records pertaining to the Seller's Facility.

#### ARTICLE X - OPERATIONS

10.1 <u>Communications</u> - Idaho Power and the Seller shall maintain appropriate operating communications through Idaho Power's Designated Dispatch Facility in accordance with Appendix A of this Agreement.

#### 10.2 Energy Acceptance –

- 10.2.1 Idaho Power shall be excused from accepting and paying for Net Energy produced by the Facility and delivered by the Seller to the Point of Delivery, if it is prevented from doing so by an event of Force Majeure, or if Idaho Power determines that curtailment, interruption or reduction of Net Energy deliveries is necessary because of line construction or maintenance requirements, emergencies, electrical system operating conditions on its system or as otherwise required by Prudent Electrical Practices. If, for reasons other than an event of Force Majeure, Idaho Power requires such a curtailment, interruption or reduction of Net Energy deliveries for a period that exceeds twenty (20) days, beginning with the twenty-first day of such interruption, curtailment or reduction, Seller will be deemed to be delivering Net Energy at a rate equivalent to the pro rata daily average of the amounts specified for the applicable month in paragraph 6.2. Idaho Power will notify Seller when the interruption, curtailment or reduction is terminated.
- 10.2.2 If, in the reasonable opinion of Idaho Power, Seller's operation of the Facility or Interconnection Facilities is unsafe or may otherwise adversely affect Idaho Power's equipment, personnel or service to its customers, Idaho Power may physically interrupt the flow of energy from the Facility as specified within the Generation Interconnection Process or take such other reasonable steps as Idaho Power deems appropriate.
- 10.3 <u>Scheduled Maintenance</u> On or before January 31 of each calendar year, Seller shall submit a written proposed maintenance schedule of significant Facility maintenance for that calendar year and Idaho Power and Seller shall mutually agree as to the acceptability of the proposed schedule. The Parties' determination as to the acceptability of the Seller's timetable for scheduled

maintenance will take into consideration Prudent Electrical Practices, Idaho Power system requirements and the Seller's preferred schedule. Neither Party shall unreasonably withhold acceptance of the proposed maintenance schedule.

- 10.4 <u>Maintenance Coordination</u> The Seller and Idaho Power shall, to the extent practical, coordinate their respective line and Facility maintenance schedules such that they occur simultaneously.
- 10.5 <u>Contact Prior to Curtailment</u> Idaho Power will make a reasonable attempt to contact the Seller prior to exercising its rights to curtail, interrupt or reduce deliveries from the Seller's Facility. Seller understands that, in the case of emergency circumstances, real time operations of the electrical system, and/or unplanned events Idaho Power may not be able to provide notice to the Seller prior to interruption, curtailment, or reduction of electrical energy deliveries to Idaho Power.

#### ARTICLE XI: INDEMNIFICATION AND INSURANCE

11.1 <u>Indemnification</u> - Each Party shall agree to hold harmless and to indemnify the other Party, its officers, directors, agents, affiliates, subsidiaries, parent company and employees against all loss, damage, expense and liability to third persons for injury to or death of person or injury to property, proximately caused by the indemnifying Party's construction, ownership, operation or maintenance of, or by failure of, any of such Party's works or facilities used in connection with this Agreement. The indemnifying Party shall, on the other Party's request, defend any suit asserting a claim covered by this indemnity. The indemnifying Party shall pay all costs, including reasonable attorney fees, that may be incurred by the other Party in enforcing this indemnity.

#### 11.2 Insurance -

- 11.2.1 If the Facility's Nameplate Capacity as determined in paragraph 1.10 of this Agreement is greater than 200 kW, the Seller shall secure and continuously carry the following insurance coverage:
  - 11.2.1.1 Comprehensive General Liability Insurance for both bodily injury and property damage with limits equal to \$1,000,000, each occurrence, combined single limit.

- The deductible for such insurance shall be consistent with current Insurance Industry Utility practices for similar property.
- 11.2.1.2 The above insurance coverage shall be placed with an insurance company with an A.M. Best Company rating of A- or better and shall include:
  - (a) An endorsement naming Idaho Power as an additional insured and loss payee as applicable; and
  - (b) A provision stating that such policy shall not be canceled or the limits of liability reduced without sixty (60) days' prior written notice to Idaho Power.
- 11.2.1.3 Seller to Provide Certificate of Insurance As required in paragraph 4.1.4 herein and annually thereafter, Seller shall furnish Idaho Power a certificate of insurance, together with the endorsements required therein, evidencing the coverage as set forth above.
- 11.2.1.4 Seller to Notify Idaho Power of Loss of Coverage If the insurance coverage required by paragraph 11.2 shall lapse for any reason, Seller will immediately notify Idaho Power in writing. The notice will advise Idaho Power of the specific reason for the lapse and the steps Seller is taking to reinstate the coverage. Failure to provide this notice and to expeditiously reinstate or replace the coverage will constitute a Material Breach of this Agreement.

#### ARTICLE XII. FORCE MAJEURE

As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the control of the Seller or of Idaho Power which, despite the exercise of due diligence, such Party is unable to prevent or overcome. Force Majeure includes, but is not limited to, acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, or changes in law or regulation occurring after the Operation Date, which, by the exercise of reasonable foresight such party could not

reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome. If either Party is rendered wholly or in part unable to perform its obligations under this Agreement because of an event of Force Majeure, both Parties shall be excused from whatever performance is affected by the event of Force Majeure, provided that:

- (1) The non-performing Party shall, as soon as is reasonably possible after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence.
- (2) The suspension of performance shall be of no greater scope and of no longer duration than is required by the event of Force Majeure.
- (3) No obligations of either Party which arose before the occurrence causing the suspension of performance and which could and should have been fully performed before such occurrence shall be excused as a result of such occurrence.

#### ARTICLE XIII: LAND RIGHTS

- 13.1 Seller to Provide Access Seller hereby grants to Idaho Power for the term of this Agreement all necessary rights-of-way and easements to install, operate, maintain, replace and remove Idaho Power's Metering Equipment, Interconnection Equipment, Disconnection Equipment, Protection Equipment and other Special Facilities necessary or useful to this Agreement, including adequate and continuing access rights on property of Seller. Seller warrants that it has procured sufficient easements and rights-of-way from third parties so as to provide Idaho Power with the access described above. All documents granting such easements or rights-of-way shall be subject to Idaho Power's approval and in recordable form.
- 13.2 <u>Use of Public Rights-of-Way</u> The Parties agree that it is necessary to avoid the adverse environmental and operating impacts that would occur as a result of duplicate electric lines being constructed in close proximity. Therefore, subject to Idaho Power's compliance with paragraph 13.4, Seller agrees that should Seller seek and receive from any local, state or federal

governmental body the right to erect, construct and maintain Seller-furnished Interconnection Facilities upon, along and over any and all public roads, streets and highways, then the use by Seller of such public right-of-way shall be subordinate to any future use by Idaho Power of such public right-of-way for construction and/or maintenance of electric distribution and transmission facilities and Idaho Power may claim use of such public right-of-way for such purposes at any time. Except as required by paragraph 13.4, Idaho Power shall not be required to compensate Seller for exercising its rights under this paragraph 13.2.

- 13.3 <u>Joint Use of Facilities</u> Subject to Idaho Power's compliance with paragraph 13.4, Idaho Power may use and attach its distribution and/or transmission facilities to Seller's Interconnection Facilities, may reconstruct Seller's Interconnection Facilities to accommodate Idaho Power's usage or Idaho Power may construct its own distribution or transmission facilities along, over and above any public right-of-way acquired from Seller pursuant to paragraph 13.2, attaching Seller's Interconnection Facilities to such newly constructed facilities. Except as required by paragraph 13.4, Idaho Power shall not be required to compensate Seller for exercising its rights under this paragraph 13.3.
- Conditions of Use It is the intention of the Parties that the Seller be left in substantially the same condition, both financially and electrically, as Seller existed prior to Idaho Power's exercising its rights under this Article XIII. Therefore, the Parties agree that the exercise by Idaho Power of any of the rights enumerated in paragraphs 13.2 and 13.3 shall: (1) comply with all applicable laws, codes and Prudent Electrical Practices, (2) equitably share the costs of installing, owning and operating jointly used facilities and rights-of-way. If the Parties are unable to agree on the method of apportioning these costs, the dispute will be submitted to the Commission for resolution and the decision of the Commission will be binding on the Parties, and (3) shall provide Seller with an interconnection to Idaho Power's system of equal capacity and durability as existed prior to Idaho Power exercising its rights under this Article XIII.

#### ARTICLE XIV: LIABILITY; DEDICATION

14.1 Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public or affect the status of Idaho Power as an independent public utility corporation or Seller as an independent individual or entity.

#### ARTICLE XV: SEVERAL OBLIGATIONS

15.1 Except where specifically stated in this Agreement to be otherwise, the duties, obligations and liabilities of the Parties are intended to be several and not joint or collective. Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or impose a trust or partnership duty, obligation or liability on or with regard to either Party. Each Party shall be individually and severally liable for its own obligations under this Agreement.

#### ARTICLE XVI: WAIVER

Any waiver at any time by either Party of its rights with respect to a Default under this

Agreement or with respect to any other matters arising in connection with this Agreement shall not be deemed a waiver with respect to any subsequent Default or other matter.

#### ARTICLE XVII: CHOICE OF LAWS AND VENUE

- 17.1 This Agreement shall be construed and interpreted in accordance with the laws of the State of Oregon without reference to its choice of law provisions.
- 17.2 Venue for any litigation arising out of or related to this Agreement will lie in the District Court of the Ninth Judicial District of Oregon in and for the County of Malheur.

#### ARTICLE XVIII: DISPUTES AND DEFAULT

18.1 <u>Disputes</u> - All disputes related to or arising under this Agreement, including, but not limited to, the interpretation of the terms and conditions of this Agreement, will be submitted to the Commission for resolution.

#### 18.2 Notice of Default -

- Defaults. If either Party fails to perform any of the terms or conditions of this Agreement (an "Event of Default" or "Default"), the nondefaulting Party shall cause notice in writing to be given to the defaulting Party, specifying the manner in which such Default occurred. If the defaulting Party shall fail to cure such Default within the sixty (60) days after service of such notice, or if the defaulting Party reasonably demonstrates to the other Party that the Default can be cured within a commercially reasonable time but not within such sixty (60) day period and then fails to diligently pursue such cure, then, the nondefaulting Party may, at its option, terminate this Agreement and/or pursue its legal or equitable remedies.
- 18.2.2 <u>Material Breaches</u> The notice and cure provisions in paragraph 18.2.1 do not apply to Defaults identified in this Agreement as Material Breaches. Material Breaches must be cured as expeditiously as possible following occurrence of the breach.
- 18.3 <u>Security for Performance</u> Prior to the Operation Date and thereafter for the full term of this Agreement, Seller will provide Idaho Power with the following:
  - 18.3.1 <u>Insurance</u> Evidence of compliance with the provisions of paragraph 11.2. If Seller fails to comply, such failure will be a Material Breach and may <u>only</u> be cured by Seller supplying evidence that the required insurance coverage has been replaced or reinstated;
  - 18.3.2 Engineer's Certifications Every three (3) years after the Operation Date, Seller will supply Idaho Power with a Certification of Ongoing Operations and Maintenance (O & M) from a Registered Professional Engineer licensed in the State of Oregon, which Certification of Ongoing O & M shall be in the form specified in Appendix C. Seller's failure to supply the required certificate will be an Event of Default. Such a Default may

only be cured by Seller providing the required certificate; and

18.3.3 <u>Licenses and Permits</u> - During the full term of this Agreement, Seller shall maintain compliance with all permits and licenses described in paragraph 4.1.1 of this Agreement. In addition, Seller will supply Idaho Power with copies of any new or additional permits or licenses. At least every fifth Contract Year, Seller will update the documentation described in paragraph 4.1.1. If at any time Seller fails to maintain compliance with the permits and licenses described in paragraph 4.1.1 or to provide the documentation required by this paragraph, such failure will be an Event of Default and may <u>only</u> be cured by Seller submitting to Idaho Power evidence of compliance from the permitting agency.

18.3.4 <u>Security Requirements</u> – During the full term of this Agreement, Seller shall maintain the Security Requirements established in accordance to paragraph 4.1.6. Failure to maintain these Security Requirements will be a Material Breach of this Agreement.

#### ARTICLE XIX: GOVERNMENTAL AUTHORIZATION

19.1 This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party of this Agreement.

#### ARTICLE XX: SUCCESSORS AND ASSIGNS

20.1 This Agreement and all of the terms and provisions hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties hereto, except that no assignment hereof by either Party shall become effective without the written consent of both Parties being first obtained. Such consent shall not be unreasonably withheld. Notwithstanding the foregoing, any party which Idaho Power may consolidate, or into which it may merge, or to which it may convey or transfer substantially all of its electric utility assets, shall automatically, without further act, and without need of consent or approval by the Seller, succeed to all of Idaho Power's rights, obligations and interests under this Agreement. This article shall not prevent a financing entity

with recorded or secured rights from exercising all rights and remedies available to it under law or contract. Idaho Power shall have the right to be notified by the financing entity that it is exercising such rights or remedies.

#### ARTICLE XXI: MODIFICATION

21.1 No modification to this Agreement shall be valid unless it is in writing and signed by both Parties and subsequently approved by the Commission.

#### ARTICLE XXII: TAXES

22.1 Each Party shall pay before delinquency all taxes and other governmental charges which, if failed to be paid when due, could result in a lien upon the Facility or the Interconnection Facilities.

#### ARTICLE XXIII: NOTICES

23.1 All written notices under this agreement shall be directed as follows and shall be considered delivered when deposited in the U. S. Mail, first-class postage prepaid, as follows:

To Seller:	

To Idaho Power:

#### Original document to:

Vice President, Power Supply Idaho Power Company P. O. Box 70 Boise, Idaho 83707

#### Copy of document to:

Cogeneration and Small Power Production Idaho Power Company P. O. Box 70 Boise, Idaho 83707

#### ARTICLE XXIV: ADDITIONAL TERMS AND CONDITIONS

24.1 This Agreement includes the following appendices, which are attached hereto and included by reference:

Appendix A - Generation Scheduling and Reporting

Appendix B - Facility and Point of Delivery
Appendix C - Engineer's Certifications

#### ARTICLE XXV: SEVERABILITY

25.1 The invalidity or unenforceability of any term or provision of this Agreement shall not affect the validity or enforceability of any other terms or provisions and this Agreement shall be construed in all other respects as if the invalid or unenforceable term or provision were omitted.

#### ARTICLE XXVI: COUNTERPARTS

26.1 This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

#### ARTICLE XXVII: ENTIRE AGREEMENT

27.1 This Agreement constitutes the entire Agreement of the Parties concerning the subject matter hereof and supersedes all prior or contemporaneous oral or written agreements between the Parties concerning the subject matter hereof. IN WITNESS WHEREOF, The Parties hereto have caused this Agreement to be executed in their respective names on the dates set forth below:

	Idaho Power Company			-
Ву		Ву		
Dated		Dated		
	"Idaho Power"		"Seller"	

#### APPENDIX A

#### A –1 MONTHLY POWER PRODUCTION AND SWITCHING REPORT

At the end of each month, the following required documentation will be submitted to:

Idaho Power Company Attn: Cogeneration and Small Power Production P. O. Box 70 Boise, Idaho 83707

The Meter readings required on this report will be the reading on the Idaho Power Meter Equipment measuring the Facility's total energy production and Station Use delivered to Idaho Power and the maximum generated energy (kW) as recorded on the Meter Equipment and/or any other required energy measurements to adequately administer this Agreement.

#### **Idaho Power Company**

#### **Cogeneration and Small Power Production**

#### MONTHLY POWER PRODUCTION AND SWITCHING REPORT

				M	onth	Ye	ear 		
Projec	t Name					Project Number:			
Addre	ss					Phone Number:			
City				State	Zip				
				Facility Output	Station Usage	Station Usage		l	Metered
		th kWh	Meter Number: Meter Reading:	<u> </u>				- TYTUALI	kW
	Beginning	g of Mor	oth kWh Meter: Difference:			_	_		
			Meter Constant:					Net	Generation
			for the Month: etered Demand:				_ =		
]	Breaker (	pening	Record			Break	er Clo	sing R	ecord
Dat	te	<u>Time</u>	Meter	* <u>R</u>	eason	<u>Date</u>	<u>Ti</u>	<u>me</u>	Meter
*			g Reason Codes	L :					
1 2		-	te Prime Mover		I here	by certify that the a	bove 1	meter r	eadings are
3	Proceed Outage of Facinity  true and correct as of Midnight on the last day of the								
4	Scheduled Maintenance above month and that the switching record is accurate and complete as required by the Energy Sales								
5	and complete as required by the Energy suices								
6	Cause U				_		-		
7	Other (E	(xplain							
					Signature				Date

#### A-2 ROUTINE REPORTING

#### Idaho Power Designated Dispatch Facility contact information

#### **Daily Energy Production Reporting**

All projects with a Nameplate Capacity of 1 MW or greater shall:

Call daily by 10 a.m.,  $\underline{1-800-356-4328}$  or  $\underline{1-800-635-1093}$  and leave the following information:

- Project Identification Project Name and Project Number
- Current Meter Reading
- Estimated Generation for the current day
- Estimated Generation for the next day

If Idaho Power determines that adequate generation data is available for this Facility's daily generation, Idaho Power may modify these reporting requirements

#### Planned and Unplanned Project outages

Call 1-800-345-1319 and leave the following information:

- Project Identification Project Name and Project Number
- Approximate time outage occurred
- Estimated day and time of project coming back online

#### Seller's Contact Information

24-Hour Project Operation	nal Contact
Name:	
Telephone Number:	-
Cell Phone:	-
Project On-site Contact in	formation
Telephone Number:	

#### APPENDIX B

#### FACILITY AND POINT OF DELIVERY

PROJECT NO
DESCRIPTION OF FACILITY
LOCATION OF FACILITY
SCHEDULED FIRST ENERGY AND OPERATION DATE
Seller has selectedas the estimated Scheduled First Energy Date.
Seller has selected as the estimated Scheduled Operation Date.
In making these selections, Seller recognizes that adequate testing of the Facility and completion
of all requirements in paragraph 5.2 of this Agreement must be completed prior to the project
being granted an Operation Date.
POINT OF DELIVERY
the point on the Idaho Power electrical system where the
Sellers Facility's energy is delivered to the Idaho Power. This point shall be a point on the Idaho
Power electrical system that is able to accept the Seller's energy and Idaho Power is able to
disburse the energy to local Idaho Power load requirements or available capacity exists on the
Idaho Power electrical system to allow transporting the Seller's energy to areas within the Idaho
Power system that is capable of consuming the Seller's energy deliveries.

#### B-6 LOSSES

If the Idaho Power Metering equipment is capable of measuring the exact energy deliveries by the Seller to the Idaho Power electrical system at the Point of Delivery, no Losses will be calculated for this Facility. If the Idaho Power Metering is unable to measure the exact energy deliveries by the Seller to the Idaho Power electrical system at the Point of Delivery, a Losses calculation will be established to measure the energy losses (kWh) between the Seller's Facility and the Idaho Power Point of Delivery. This loss calculation will be initially set at 2% of the kWh energy production recorded on the Facility generation metering equipment. At such time as Seller provides Idaho Power with the electrical equipment specifications (transformer loss specifications, conductor sizes, etc) of all of the electrical equipment between the Facility and the Idaho Power electrical system, Idaho Power will configure a revised loss calculation formula to be agreed to by both parties and used to calculate the kWh Losses for the remaining term of the Agreement. If at anytime during the term of this Agreement, Idaho Power determines that the loss calculation does not correctly reflect the actual kWh losses attributed to the electrical equipment between the Facility and the Idaho Power electrical system, Idaho Power may adjust the calculation and retroactively adjust the previous months kWh loss calculations.

#### B-7 METERING AND TELEMETRY

At the minimum the Metering Equipment and Telemetry equipment must be able to provide and record hourly energy deliveries to the Point of Delivery and any other energy measurements required to administer this Agreement.

#### APPENDIX C

#### **ENGINEER'S CERTIFICATION**

OF

#### OPERATIONS & MAINTENANCE POLICY

The	undersigned, on behalf of himself and
	, hereinafter collectively referred to as "Engineer,"
hereb	y states and certifies to the Seller as follows:
1.	That Engineer is a Licensed Professional Engineer in good standing in the State of Oregon.
2.	That Engineer has reviewed the Energy Sales Agreement, hereinafter "Agreement," between
Idaho	Power as Buyer, and as Seller, dated
3.	That the cogeneration or small power production project which is the subject of the Agreement
and th	nis Statement is identified as IPCo Facility No and is hereinafter referred to as
the "P	Project."
4.	That the Project, which is commonly known as the, is located in
Section	on, Township, Range,County,
5.	That Engineer recognizes that the Agreement provides for the Project to furnish electrical energy
to Ida	ho Power for period ofyears.
6.	That Engineer has substantial experience in the design, construction and operation of electric
power	r plants of the same type as this Project.
7.	That Engineer has no economic relationship to the Design Engineer of this Project.
8.	That Engineer has reviewed and/or supervised the review of the Policy for Operation and
Maint	renance ("O&M") for this Project and it is his professional opinion that, provided said Project has
been o	designed and built to appropriate standards, adherence to said O&M Policy will result in the

	years.
9.	That Engineer recognizes that Idaho Power, in accordance with paragraph 5.2 of the Agreement
is rel	ying on Engineer's representations and opinions contained in this Statement.
10.	That Engineer certifies that the above statements are complete, true and accurate to the best of hi
know	rledge and therefore sets his hand and seal below.
	Ву
	•
	(P.E. Stamp)
	Date

Project's producing at or near the design electrical output, efficiency and plant factor for a period of

#### APPENDIX C

#### ENGINEER'S CERTIFICATION

OF

#### ONGOING OPERATIONS AND MAINTENANCE

	The undersigned, on behalf of himself and
	hereinafter collectively referred to as "Engineer," hereby
states a	and certifies to the Seller as follows:
1.	That Engineer is a Licensed Professional Engineer in good standing in the State of Oregon.
2.	That Engineer has reviewed the Energy Sales Agreement, hereinafter "Agreement," between
Idaho l	Power as Buyer, and as Seller, dated
3.	That the cogeneration or small power production project which is the subject of the Agreement
and th	is Statement is identified as IPCo Facility No and hereinafter referred to as the
"Proje	et".
4.	That the Project, which is commonly known as the, is located at
5.	That Engineer recognizes that the Agreement provides for the Project to furnish electrical energy
to Idah	o Power for a period ofyears.
6.	That Engineer has substantial experience in the design, construction and operation of electric
power	plants of the same type as this Project.
7.	That Engineer has no economic relationship to the Design Engineer of this Project.
8.	That Engineer has made a physical inspection of said Project, its operations and maintenance
record	s since the last previous certified inspection. It is Engineer's professional opinion, based on the
Project	e's appearance, that its ongoing O&M has been substantially in accordance with said O&M Policy;
that it	is in reasonably good operating condition; and that if adherence to said O&M Policy continues, the
Project	will continue producing at or near its design electrical output, efficiency and plant factor for the
remain	ing years of the Agreement.

- 9. That Engineer recognizes that Idaho Power, in accordance with paragraph 5.2 of the Agreement, is relying on Engineer's representations and opinions contained in this Statement.
- 10. That Engineer certifies that the above statements are complete, true and accurate to the best of his knowledge and therefore sets his hand and seal below.

Ву		-
	(P.E. Stamp)	
Date		

#### APPENDIX C

#### **ENGINEER'S CERTIFICATION**

OF

#### DESIGN & CONSTRUCTION ADEQUACY

The	undersig	ned, on behalf of himself and
		, hereinafter collectively referred to as "Engineer"
herel	oy states an	nd certifies to Idaho Power as follows:
1.		That Engineer is a Licensed Professional Engineer in good standing in the State of
Oreg	gon.	
2.		That Engineer has reviewed the Energy Sales Agreement, hereinafter "Agreement"
betw	een Idaho	Power as Buyer, and as Seller, dated
3.		That the cogeneration or small power production project, which is the subject of the
Agre	ement and	this Statement, is identified as IPCo Facility No and is hereinafte
refer	red to as th	e "Project".
4.		That the Project, which is commonly known as the Project, i
locat	ed in Section	on Township, Range, , County,
5.		That Engineer recognizes that the Agreement provides for the Project to furnish electrical
energ	gy to Idaho	Power for a () year period.
6.		That Engineer has substantial experience in the design, construction and operation o
elect	ric power p	plants of the same type as this Project.
7.		That Engineer has no economic relationship to the Design Engineer of this Project and
has n	nade the an	nalysis of the plans and specifications independently.
8.		That Engineer has reviewed the engineering design and construction of the Project
inclu	ding the ci	ivil work, electrical work, generating equipment, prime mover conveyance system, Selle
furni	shed Interc	connection Facilities and other Project facilities and equipment.

9.	That the Project has been constructed in accordance with said plans and specifications, all
applicable co	odes and consistent with Prudent Electrical Practices as that term is described in the
Agreement.	
10.	That the design and construction of the Project is such that with reasonable and prudent
operation and	maintenance practices by Seller, the Project is capable of performing in accordance with the
terms of the A	Agreement and with Prudent Electrical Practices for a() year period.
11.	That Engineer recognizes that Idaho Power, in accordance with paragraph 5.2 of the
Agreement, i	n interconnecting the Project with its system, is relying on Engineer's representations and
opinions cont	ained in this Statement.
12.	That Engineer certifies that the above statements are complete, true and accurate to the
best of his kn	owledge and therefore sets his hand and seal below.
	Ву
	(P.E. Stamp)
	Date

### **ATTACHMENT 2**

Second Revised Sheet No. 85-1 Cancels First Revised Sheet No. 85-1

P.U.C. ORE. NO. E-25

### SCHEDULE 85 COGENERATION AND SMALL POWER PRODUCTION STANDARD CONTRACT RATES

#### **AVAILABILITY**

Service under this schedule is available throughout the Company's service territory within the State of Oregon.

#### **APPLICABILITY**

Service under this schedule is applicable to any Seller that:

- 1) Owns or operates a Qualifying Facility with a nameplate capacity rating of 10 MW or less and desires to sell Energy generated by the Qualifying Facility to the Company in compliance with all the terms and conditions of the Standard Contract;
- 2) Meets all applicable requirements of the Company's Generation Interconnection Process.

For Qualifying Facilities with a nameplate capacity rating greater than 10 MW, a negotiated Non-Standard Contract between the Seller and the Company is required.

#### **DEFINITIONS**

<u>Energy</u> means the electric energy, expressed in kWh, generated by the Qualifying Facility and delivered by the Seller to the Company in accordance with the conditions of this schedule and the Standard Contract. Energy is measured net of Losses and Station Use.

<u>Generation Interconnection Process</u> is the Company's generation interconnection application and engineering review process developed to ensure a safe and reliable generation interconnection in compliance with all applicable regulatory requirements, Prudent Electrical Practices and national safety standards.

Heat Rate Conversion Factor is 7,100 MMBTU divided by 1000.

<u>Losses</u> are the loss of electric energy occurring as a result of the transformation and transmission of electric energy from the Qualifying Facility to the Point of Delivery.

**OREGON** 

rendered on and after: August 12, 2005

Advice No. 05-06

Second Revised Sheet No. 85-2 Cancels First Revised Sheet No. 85-2

P.U.C. ORE. NO. E-25

SCHEDULE 85 **COGENERATION AND SMALL POWER** PRODUCTION STANDARD

> **CONTRACT RATES** (Continued)

#### **DEFINITIONS** (Continued)

Non-Standard Contract is a negotiated contract between any Seller that owns or operates a Qualifying Facility with a nameplate capacity rating greater than 10 MW and desires to sell Energy generated by the Qualifying Facility to the Company. The starting point for negotiation of price is the Avoided Cost Components established in this schedule and may be modified to address specific factors mandated by federal and state law, including

- 1) The utility's system cost data;
- The availability of capacity or energy from a Qualifying Facility during the system daily 2) and seasonal peak periods, including:
  - a. The ability of the utility to dispatch the qualifying facility;
  - b. The expected or demonstrated reliability of the qualifying facility;
  - c. The terms of any contract or other legally enforceable obligation, including the duration of the obligation, termination notice requirement and sanctions for noncompliance:
  - d. The extent to which scheduled outages of the qualifying facility can be usefully coordinated with scheduled outages of the utility's facilities;
  - e. The usefulness of energy and capacity supplied from a qualifying facility during system emergencies, including its ability to separate its load from its generation;
  - f. The individual and aggregate value of energy and capacity from qualifying facilities on the electric utility's system; and
  - g. The smaller capacity increments and the shorter lead times available with additions of capacity from qualifying facilities; and
- The relationship of the availability of energy or capacity from the Qualifying Facility to the ability of the electric utility to avoid costs, including the deferral of capacity additions and the reduction of fossil fuel use; and
- The costs or savings resulting from variations in line losses from those that would have existed in the absence of purchases from a Qualifying Facility, if the purchasing electric utility generated an equivalent amount of energy itself or purchased an equivalent amount of electric energy or capacity.

Issued By IDAHO POWER COMPANY By John R. Gale, Vice President, Regulatory Affairs 1221 West Idaho Street, Boise, Idaho

Advice No. 05-06

Idaho Power Company

Second Revised Sheet No. 85-3 Cancels

P.U.C. ORE. NO. E-25

First Revised Sheet No. 85-3

# SCHEDULE 85 COGENERATION AND SMALL POWER PRODUCTION STANDARD CONTRACT RATES (Continued)

#### **DEFINITIONS** (Continued)

<u>Point of Delivery</u> is the location where the Company's and the Seller's electrical facilities are interconnected.

<u>Prudent Electrical Practices</u> are those practices, methods and equipment that are commonly used in prudent electrical engineering and operations to operate electric equipment lawfully and with safety, dependability, efficiency and economy.

PURPA means the Public Utility Regulatory Policies Act of 1978.

<u>Qualifying Facility</u> is a cogeneration facility or a small power production facility which meets the PURPA criteria for qualification set forth in Subpart B of Part 292, Subchapter K, Chapter I, Title 18, of the Code of Federal Regulations.

<u>Seasonality Factor</u> is the factor used in determining the seasonal purchase price of energy. The applicable factors are:

73.50% for Season 1 (March, April, May); 120.00% for Season 2 (July, August, November, December); 100.00% for Season 3 (June, September, October, January, February).

<u>Seller</u> is any entity that owns or operates a Qualifying Facility and desires to sell Energy to the Company.

<u>Standard Contract</u> is the Company's Energy Sales Agreement (10 MW or less) filed with the Public Utility Commission of Oregon.

<u>Station Use</u> is electric energy used to operate the Qualifying Facility which is auxiliary to or directly related to the generation of electricity and which, but for the generation of electricity, would not be consumed by the Seller.

rendered on and after: August 12, 2005 Second Revised Sheet No. 85-4 Cancels First Revised Sheet No. 85-4

P.U.C. ORE. NO. E-25

SCHEDULE 85 **COGENERATION AND SMALL POWER** PRODUCTION STANDARD **CONTRACT RATES** (Continued)

#### QUALIFYING FACILITY INFORMATION INQUIRY PROCESS

There are two separate processes required for a Seller to deliver and sell energy from a Qualifying Facility to the Company. These processes may be completed separately or simultaneously.

#### 1) Generation Interconnection Process

All generation projects physically interconnecting to the Company's electrical system, regardless of size, location or ownership, must successfully complete the Generation Interconnection Process prior to the project delivering energy to the Company. A complete description, application and Company contact information is maintained on the Idaho Power website at www.idahopower.com, or Seller may contact the Company's Customer Service Center at 1-800-488-6151 for further information.

#### 2) **Energy Sales Agreement**

To begin the process of completing a Standard Contract or negotiating a Non-Standard Contract, for a proposed project, the Seller must submit in written form to the Company a request for an Energy Sales Agreement. This request, at the minimum, should contain:

- a. Date of request
- b. Description of the proposed project
- c. Type of project (wind, hydro, geothermal etc)
- d. Nameplate capacity of the proposed project
- e. Estimated monthly generation (kWh)
- f. Estimated on-line date of the proposed project
- g. Location of the proposed project
- h. Company / Organization that will be the contracting party
- i. Contact information including name, address and telephone number

All requests will be processed in the order of receipt by the Company. The request should be submitted to:

> Idaho Power Company Cogeneration and Small Power Production P O Box 70 Boise, Idaho 83707

**OREGON** 

Second Revised Sheet No. 85-5 Cancels

P.U.C. ORE. NO. E-25

First Revised Sheet No. 85-5

# SCHEDULE 85 COGENERATION AND SMALL POWER PRODUCTION STANDARD CONTRACT RATES (Continued)

#### **AVOIDED COST COMPONENTS**

The Avoided Cost Components are calculated based upon the Surrogate Avoided Resource methodology (SAR) for determining the Company's standard avoided costs.

	Capacity Cost	Fuel Cost
Year	(mills/kWh)	(mills/kWh)
2005	23.96	43.67
2006	24.52	43.45
2007	25.08	42.67
2008	25.66	41.46
2009	26.25	40.33
2010	26.86	39.19
2011	27.50	39.90
2012	28.13	40.54
2013	28.77	41.25
2014	29.44	41.96
2015	30.13	42.67
2016	30.83	44.02
2017	31.55	45.44
2018	32.27	47.00
2019	33.03	48.49
2020	33.78	50.06
2021	34.58	51.69
2022	35.39	53.32
2023	36.20	55.17
2024	37.05	56.94
2025	37.91	58.72
2026	38.79	60.63
2027	39.69	62.62
2028	40.61	64.61
2029	41.57	66.74
2030	42.54	68.87

OREGON

P.U.C. ORE. NO. E-25

#### Original Sheet No. 85-6

#### SCHEDULE 85 COGENERATION AND SMALL POWER PRODUCTION STANDARD **CONTRACT RATES** (Continued)

#### NET ENERGY PURCHASE PRICE

The Company will pay the Seller monthly, for each kWh of Energy delivered and accepted at the Point of Delivery during the preceding calendar month, in accordance with the Standard Contract, an amount determined by the Seller's choice of one of the following options:

#### Option 1 - Fixed Price Method

Net Energy Purchase Price =

On-peak = (Fuel Cost + Capacity Cost) X Seasonality Factor Off-peak = Fuel Cost X Seasonality Factor

where

Fuel Cost and Capacity Cost are the Avoided Cost Components established in this schedule for the applicable calendar year of the actual Net Energy deliveries to the Company.

#### Option 2 - Dead Band Method

Net Energy Purchase Price =

On-peak = (AGPU + Capacity Cost) X Seasonality Factor Off-peak = AGPU X Seasonality Factor

Actual Gas Price Used (AGPU) = 90% of Fuel Cost if Indexed Fuel Cost is less than 90% Fuel Cost; else 110% of Fuel Cost if Indexed Fuel Cost is greater than 110% Fuel Cost; else Indexed Fuel Cost

where

Fuel Cost and Capacity Cost are the Avoided Cost Components established in this schedule for the applicable calendar year of the actual Net Energy deliveries to the Company, and

Indexed Fuel Cost is the applicable weighted monthly average index price of natural gas at Sumas multiplied by the Heat Rate Conversion Factor.

P.U.C. ORE. NO. E-25

Original Sheet No. 85-7

#### SCHEDULE 85 COGENERATION AND SMALL POWER PRODUCTION STANDARD CONTRACT RATES (Continued)

#### NET ENERGY PURCHASE PRICE (Continued)

#### Option 3 – Gas Market Method

Net Energy Purchase Price =

On-peak = (AGPU + Capacity Cost) X Seasonality Factor Off-peak = AGPU X Seasonality Factor

Actual Gas Price Used (AGPU) = Indexed Fuel Cost

where

Capacity Cost is the Avoided Cost Component established in this schedule for the applicable calendar year of the actual Net Energy deliveries to the Company, and

Indexed Fuel Cost is the applicable weighted monthly average index price of natural gas at Sumas multiplied by the Heat Rate Conversion Factor.

**OREGON** 

## **ATTACHMENT 3**

FIRST REVISED SHEET NO. 86-1 CANCELS ORIGINAL SHEET NO. 86-1

P.U.C. ORE. NO. E-25

SCHEDULE 86
COGENERATION AND SMALL POWER PRODUCTION
STANDARD RATES

SERVICE DISCONTINUED

FIFTH REVISED SHEET NO. 86-2 CANCELS FOURTH REVISED SHEET NO. 86-2

P.U.C. ORE. NO. E-25

SCHEDULE 86

COGENERATION AND SMALL POWER PRODUCTION

STANDARD RATES

(Continued)

SERVICE DISCONTINUED

SECOND REVISED SHEET NO. 86-3

CANCELS
FIRST REVISED SHEET NO. 86-3

P.U.C. ORE. NO. E-25

SCHEDULE 86

<u>COGENERATION AND SMALL POWER PRODUCTION</u>

<u>STANDARD RATES</u>

(Continued)

SERVICE DISCONTINUED

SECOND REVISED SHEET NO. 86-4 CANCELS FIRST REVISED SHEET NO. 86-4

P.U.C. ORE. NO. E-25

SCHEDULE 86

<u>COGENERATION AND SMALL POWER PRODUCTION</u>

<u>STANDARD RATES</u>

(Continued)

SERVICE DISCONTINUED

SECOND REVISED SHEET NO. 86-5 CANCELS FIRST REVISED SHEET NO. 86-5

P.U.C. ORE. NO. E-25

SCHEDULE 86

<u>COGENERATION AND SMALL POWER PRODUCTION</u>

<u>STANDARD RATES</u>

(Continued)

SERVICE DISCONTINUED

FIRST REVISED SHEET NO. 86-6 CANCELS ORIGINAL SHEET NO. 86-6

P.U.C. ORE. NO. E-25

SCHEDULE 86

COGENERATION AND SMALL POWER PRODUCTION

STANDARD RATES

(Continued)

SERVICE DISCONTINUED

#### UM 1931 PGE Exhibit 105

PGE's October 20, 2006 compliance filing in Docket No. UM 1129 responding to Order 06-538



Pamela Grace Lesh

Vice President Regulatory Affairs & Strategic Planning

October 20, 2006

Public Utility Commission of Oregon Attn: Filing Center 550 Capitol Street, N.E., Suite 215 Salem, OR 97301-2551

RE: Advice No. 06-26, UM 1129 Compliance Filing to Order No. 06-538

In addition to the electronic filing, enclosed is the original with a requested effective date of **November 20, 2006**:

Second Revision of Sheet No. 201-1	First Revision of Sheet No. 201-12
Sixth Revision of Sheet No. 201-2	First Revision of Sheet No. 201-13
Third Revision of Sheet No. 201-3	First Revision of Sheet No. 201-14
First Revision of Sheet No. 201-4	First Revision of Sheet No. 201-15
First Revision of Sheet No. 201-5	First Revision of Sheet No. 201-16
First Revision of Sheet No. 201-6	Original Sheet No. 201-17
First Revision of Sheet No. 201-7	Original Sheet No. 201-18
First Revision of Sheet No. 201-8	Original Sheet No. 201-19
First Revision of Sheet No. 201-9	Original Sheet No. 201-20
First Revision of Sheet No. 201-10	Original Sheet No. 201-21
First Revision of Sheet No. 201-11	_

Appendix 1 to Schedule 201, Standard Contract Off System Standard Contract

This filling is being made in compliance with OPUC Order No. 06-538 in Docket No. UM 1129. Pursuant to Order No. 06-538, Schedule 201 is modified to incorporate additional information about the process and requirements for entering into a standard or negotiated power purchase agreement for power from a qualifying facility (QF).

Also, two Standard Contracts are included in this filing. The first, the Standard Contract for QFs located in PGE's service territory is incorporated into Schedule 201 as Appendix 1. A comparable Off System Standard Contract is also included in this filing for Commission review and approval. Schedule 201 indicates that the Off System Standard Contract is available from PGE on request. Both Standard Contracts incorporate changes to provisions required by the Order. When effective, both Standard Contracts will be available through the Company's website.

Advice No. 06-26 Page 2

Please direct any questions regarding this filing to Doug Kuns at (503) 464-7891.

Please direct all formal correspondence and requests to the following email address pge.opuc.filings@pgn.com

Sincerely,

/s/ Pamela G. Lesh

Vice President, Regulatory Affairs & Strategic Planning

Second Revision of Sheet No. 201-1 Canceling First Revision Sheet No. 201-1

## SCHEDULE 201 QUALIFYING FACILITY POWER PURCHASE INFORMATION

#### **PURPOSE**

To provide information about Avoided Costs, Standard Contracts and negotiated Power Purchase Agreements, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company.

#### **AVAILABLE**

In all territory served by the Company.

#### **APPLICABLE**

Applicable to Sellers of generation from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, the energy is delivered to the Company's system and made available for Company purchase, and the Seller meets all requirements herein described including establishing credit, providing proof of insurance, executing an interconnection agreement, a transmission agreement and a Power Purchase Agreement, where applicable.

#### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard Contract Power Purchase Agreement (Standard Contract), a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security as deemed sufficient by the Company as set out in the Standard Contract.

#### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

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Sixth Revision of Sheet No. 201-2 Canceling Fifth Revision of Sheet No. 201-2

#### **SCHEDULE 201 (Continued)**

#### POWER PURCHASE PROPOSALS AND AGREEMENT

In accordance with terms set out in this schedule and the Commission's Rules as applicable, the Company shall purchase any energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a Power Purchase Agreement with the Company prior to delivery of power to the Company. The agreement shall have a term of up to 20 years as selected by the QF.

A Seller with a QF nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard Contract. (T)

Any Seller may elect to negotiate a Power Purchase Agreement with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC) and the Commission. Negotiations for power purchase pricing shall be based on the filed Avoided Costs in effect at that time.

#### STANDARD CONTRACT (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard Contract shall complete all informational and price option selection requirements in the Standard Contract (Appendix 1 to this schedule) and submit the executed agreement to the Company prior to service under this schedule. The Standard Contract is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>.

#### **GUIDELINES FOR LESS THAN 10 MW FACILITIES**

In order to execute the Standard Contract the Seller must complete all of the general project information requested in the Standard Contract.

When all information required in the Standard Contract has been received in writing from the Seller, the Company shall respond within 15 business days with a draft Standard Contract.

If the Seller desires to proceed with the Standard Contract after reviewing the Company's draft agreement, the Seller may request in writing that the Company prepare a final draft Standard Contract. The Company shall respond to this request within 15 business days. In connection with such request, the Seller must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard Contract.

Advice No. 06-26 Issued October 20, 2006 Pamela Grace Lesh, Vice President

Effective for service on and after November 20, 2006

#### GUIDELINES FOR LESS THAN 10 MW FACILITIES (Continued)

(N)

When both parties are in full agreement as to all terms and conditions of the draft Standard Contract, the Company shall prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, a completely executed copy shall be returned to the Seller. Prices and other terms and conditions in the power purchase agreement shall not be final and binding until the Standard Contract has been executed by both parties.

#### **NEGOTIATED CONTRACT (Nameplate capacity of greater than 10 MW)**

A negotiated power purchase agreement is required for a QF with a nameplate capacity greater than 10 MW. A Seller with a QF with a nameplate capacity that is greater than 10 MW shall provide all the preliminary information requested under GUIDELINES FOR FACILITIES GREATER THAN 10 MW. A Seller with a facility that is less than 10 MW has the option to enter into a negotiated contract and shall provide all the preliminary information requested under GUIDELINES FOR FACILTIES GREATER THAN 10 MW.

#### **GUIDELINES FOR GREATER THAN 10 MW FACILITIES**

The Company shall provide a form power purchase agreement upon request to the Company. The Company shall send the form agreement to the Seller within seven business days of the request.

The Seller may request indicative power purchase prices. To obtain an indicative pricing proposal for a proposed project, the Seller must provide in writing, general project information reasonably required for the development of indicative pricing, including, but not limited to:

- demonstration of ability to obtain QF status
- design capacity (MW), station service requirements, and net amount of power to be delivered to the Company's electric system.
- generation technology and other related technology applicable to the site
- quantity and timing of monthly power deliveries (including project ability to respond to dispatch orders from the Company)
- proposed site location and electrical interconnection point
- status of interconnection and transmission arrangements
- proposed on-line date and outstanding permitting requirements
- motive force or fuel plan consisting of fuel type(s) and source(s)
- proposed contract term and pricing provisions

First Revision of Sheet No. 201-4 Canceling Original Sheet No. 201-4

#### **SCHEDULE 201 (Continued)**

#### GUIDELINES FOR GREATER THAN 10 MW FACILITIES (Continued)

(N)

The Company shall not be obligated to provide an indicative pricing proposal until all the information described above has been received in writing from the Seller. Within 30 business days following receipt of all required information, the Company shall provide the Seller with an indicative pricing proposal, which may include other indicative terms and conditions, tailored to the individual characteristics of the proposed project. Such proposal may be used by the Seller to make determinations regarding project planning, financing and feasibility. However, such prices are indicative and are not final and binding. Prices and other terms and conditions are only final and binding to the extent contained in a power purchase agreement executed by both parties. The Company shall provide with the indicative prices a description of the methodology used to develop the prices.

The Avoided Cost Prices and pricing options specified in this schedule provides a starting point for negotiated prices, and shall be modified to address specific factors mandated by federal and state law, including the following factors found under 18 § CFR 292.304(e);

- (e) Factors affecting rates for purchases. In determining avoided costs, the following factors shall, to the extent practicable, be taken into account.
  - (1) The data provided pursuant to 18 CFR § 292.302(b), (c), or (d), including State review of any such data;
  - (2) The availability of capacity or energy from a qualifying facility during the system daily and seasonal peak periods, including:
    - (i) The ability of the Company to dispatch the qualifying facility;
    - (ii) The expected or demonstrated reliability of the qualifying facility;
    - (iii) The terms of any contract or other legally enforceable obligation, including the duration of the obligation, termination notice requirement and sanctions for non-compliance;
    - (iv) The extent to which scheduled outages of the qualifying facility can be usefully coordinated with scheduled outages of the Company's facilities;
    - (v) The usefulness of energy and capacity supplied from a qualifying facility during system emergencies, including its ability to separate its load from its generation;
    - (vi) The individual and aggregate value of energy and capacity from qualifying facilities on the Company's system; and
    - (vii) The smaller capacity increments and the shorter lead time available with additions of capacity from qualifying facilities; and

#### GUIDELINES FOR GREATER THAN 10 MW FACILITIES (Continued)

(N)

- (3) The relationship of the availability of energy or capacity from the qualifying facility as derived in part (e) (2) of this section, to the ability of the Company to avoid costs, including the deferral of capacity additions and the reduction of fossil fuel use; and
- (4) The costs or savings resulting from variations in line losses from those that would have existed in the absence of purchases from a qualifying facility, if the Company generated an equivalent amount of energy itself or purchased an equivalent amount of electric energy or capacity.

If the Seller desires to proceed with the project after reviewing the Company's indicative price proposal, the Seller must request in writing that the Company prepare a draft power purchase agreement to serve as the basis for negotiations between the parties. In connection with such request, the Seller must provide the Company with any additional project information that the Company reasonably determines to be necessary for the preparation of a draft power purchase agreement, which may include, but shall not be limited to:

- Updated information for the general project information categories listed above
- Evidence of adequate control of proposed site
- Timelines for obtaining any necessary governmental permits, approvals or authorizations
- Assurance of fuel supply or motive force
- Anticipated timelines for completion of key project milestones
- Evidence that any necessary interconnection studies have been completed and assurance that the necessary interconnection arrangements are under negotiation.

The Company shall not be obligated to provide the Seller with a draft power purchase agreement until all the relevant QF project information listed above has been received by the Company in writing. Within 30 business days following receipt of all required information, the Company shall provide the Seller with a draft power purchase agreement containing a comprehensive set of proposed terms and conditions, including a specific pricing proposal for power purchased from the project. The draft agreement shall serve as the basis for subsequent negotiations between the parties and unless clearly indicated, shall not be construed as a binding proposal by the Company.

First Revision of Sheet No. 201-6 Canceling Original Sheet No. 201-6

#### **SCHEDULE 201 (Continued)**

#### GUIDELINES FOR GREATER THAN 10 MW FACILITIES (Continued)

(N)

After reviewing the draft power purchase agreement, the Seller may prepare an initial set of written comments and proposals regarding the agreement and forward them to the Company. The Company shall not be obligated to begin negotiations with a Seller until the Company has received an initial set of written comments. After the Company's receipt of comments and proposals, the Seller may contact the Company to schedule contract negotiations at such times and places as are mutually agreeable to the parties. In connection with such negotiations, the Company:

- Shall not unreasonably delay negotiations and shall respond in good faith to any additions, deletions or modifications to the draft power purchase agreement that are proposed by the Seller
- May request to visit the site of the proposed project if such a visit has not previously occurred
- Shall update its pricing proposals at appropriate intervals to accommodate any changes to the Company's avoided-cost calculations, the proposed project or proposed terms of the draft power purchase agreement
- May request any additional information from the Seller necessary to finalize the terms of the power purchase agreement and satisfy the Company's due diligence regarding the QF project.

When both parties are in full agreement as to all terms and conditions of the power purchase agreement, the Company shall prepare and forward to the Seller a final, executable version of the agreement. Prices and other terms and conditions in the power purchase agreement shall not be final and binding until the agreement has been executed by both parties.

#### OFF SYSTEM POWER PURCHASE AGREEMENT

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a power purchase agreement with the Company after following the applicable standard or negotiated contract guidelines and making the arrangements necessary for transmission of power to the Company's system. A Standard Contract for Off System QFs is available upon request to the Company.

First Revision of Sheet No. 201-7 Canceling Original Sheet No. 201-7

#### **SCHEDULE 201 (Continued)**

#### **BASIS FOR POWER PURCHASE PRICE**

(M)

#### **Avoided Cost Summary**

The power purchase rates are based on the Company's Avoided Costs. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

The Avoided Costs as listed in Tables 1 and 2 below include monthly On- and Off-Peak prices.

#### **ON-PEAK PERIOD**

The On-Peak period is 6 a.m. until 10 p.m., Monday through Saturday.

#### **OFF-PEAK PERIOD**

The Off-Peak period is 10 p.m. until 6 a.m., Monday through Saturday, and all 24 hours on Sunday.

Avoided Costs are based on forward market price estimates through December 2008, the period of time during which the Company's Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the period 2009 through 2025, the Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of energy plus capitalized energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

The CCCT Avoided Cost estimates beginning in 2009 include the avoidable power supply costs assumed to be represented by new generating capacity consistent with the Company's Integrated Resource Plan's Final Action Plan Acknowledged in Commission Order No. 04-375.

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#### **SCHEDULE 201 (Continued)**

#### PRICING OPTIONS FOR STANDARD CONTRACTS

(M)

Pricing options represent the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery within the Company's Service Territory pursuant to a Standard Contract up to the nameplate rating of the QF in any hour. Any energy delivered in excess of the nameplate rating shall be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard Contract pricing shall be based on the Avoided Cost in effect at the time the agreement is executed.

Four pricing options are available for Standard Contracts. The pricing options include one Fixed Rate Option and three Market Based Options.

#### 1) Fixed Price Option

The Fixed Price Option is based on Avoided Costs including forecasted natural gas prices.

This option is available for a maximum term of 15 years. Sellers with contracts exceeding 15 years will make a one time election at execution to select a market-based option for all years up to five in excess of the initial 15. Under the Fixed Price Option, prices will be as established at the time the Standard Contract is executed and shall be equal to the Avoided Costs in Tables 1 and 2 effective at execution for a term of up to 15 years.

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#### **SCHEDULE 201 (Continued)**

## PRICING OPTIONS FOR STANDARD CONTRACTS (Continued) FIXED PRICE OPTION (Continued)

(M)

						TABLE	<u>1</u>					
	Avoided Costs Fixed Price Option											
							st (\$/MWI	4/				
					On rear	Month	σε (ψ/141441	<u>.,                                    </u>				
Year	<u>Jan</u>	<u>Feb</u>	Mar	Apr	May	Jun	<u>Jul</u>	Aug	Sep	Oct	Nov	<u>Dec</u>
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67.97	66.95	64.20	69.29	74.39
2006	77.96	74.39	69.29	59.10	49.42	50.44	69.04	75.92	72.40	69.04	71.08	74.13
2007	76.43	72.86	67.77	57.58	47.90	48.91	68.02	74.90	71.38	68.02	70.06	73.12
2008	74.90	71.33	66.23	56.04	46.36	47.38	66.49	73.37	69.85	66.49	68.53	71.58
2009	64.40	64.36	63.78	59.56	59.02	59.18	59.33	59.47	59.40	59.50	60.84	62.17
2010	60.39	60.33	59.78	56.25	55.77	55.90	56.03	56.14	56.10	56.19	57.41	58.58
2011	66.34	66.28	65.62	61.46	60.89	61.04	61.20	61.33	61.28	61.38	62.82	64.20
2012	69.28	69.21	68.51	64.09	63.48	63.65	63.81	63.95	63.90	64.01	65.54	67.01
2013	75.03	74.95	74.16	69.13	68.45	68.63	68.82	68.97	68.92	69.04	70.78	72.45
2014	80.36	80.28	79.40	73.82	73.06	73.26	73.47	73.64	73.59	73.72	75.65	77.50
2015	81.36	81.27	80.40	74.80	74.04	74.24	74.45	74.62	74.56	74.70	76.63	78.49
2016	73.15	73.08	72.37	67.88	67.27	67.43	67.60	67.74	67.69	67.80	69.35	70.85
2017	77.09	77.01	76.25	71.42	70.76	70.93	71.11	71.26	71.21	71.33	73.00	74.61
2018	84.84	84.75	83.86	78.17	77.40	77.61	77.81	77.99	77.93	78.07	80.04	81.92
2019	92.90	92.79	91.76	85.21	84.31	84.55	84.79	85.00	84.93	85.09	87.35	89.53
2020	98.17	98.06	96.94	89.85	88.88	89.14	89.40	89.62	89.55	89.72	92.17	94.53
2021	100.74	100.63	99.48	92.21	91.22	91.48	91.75	91.98	91.90	92.08	94.59	97.01
2022	103.25	103.14	101.97	94.51	93.49	93.77	94.04	94.27	94.20	94.38	96.95	99.43
2023	105.95	105.83	104.63	96.98	95.94	96.22	96.50	96.74	96.66	96.85	99.49	102.03
2024	108.35	108.23	106.99	99.16	98.09	98.38	98.67	98.91	98.83	99.02	101.73	104.33
2025	111.18	111.06	109.80	101.77	100.67	100.97	101.26	101.51	101.43	101.62	104.40	107.06

## PRICING OPTIONS FOR STANDARD CONTRACTS (Continued) FIXED PRICE OPTION (Continued)

(M)

						TABLE 2	<u>2</u>					
	Avoided Costs											
						Price C						
				<u>O</u> 1	ff-Peak	Forecas	t (\$/MW	<u>H)</u>				
						<u>Month</u>						
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	May	<u>Jun</u>	<u>Jul</u>	Aug	<u>Sep</u>	Oct	Nov	<u>Dec</u>
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	56.76	55.74	54.01	58.59	64.45
2006	65.98	62.93	59.87	49.93	42.29	39.23	58.59	61.14	59.61	57.58	59.61	63.18
2007	63.43	60.38	57.32	47.90	40.25	37.20	57.83	60.38	58.85	56.81	58.85	62.42
2008	61.90	58.85	55.79	46.36	38.72	35.66	56.30	58.85	57.32	55.28	57.32	60.88
2009	38.83	38.79	38.21	33.98	33.44	33.61	33.75	33.90	33.83	33.92	35.27	36.59
2010	34.18	34.12	33.57	30.03	29.55	29.68	29.81	29.92	29.89	29.97	31.19	32.36
2011	39.47	39.41	38.75	34.59	34.02	34.17	34.33	34.46	34.41	34.51	35.95	37.34
2012	41.74	41.67	40.97	36.55	35.94	36.10	36.27	36.41	36.36	36.47	38.00	39.47
2013	46.80	46.72	45.93	40.90	40.22	40.40	40.59	40.74	40.69	40.81	42.55	44.22
2014	51.43	51.34	50.46	44.88	44.12	44.33	44.53	44.71	44.65	44.78	46.71	48.57
2015	51.70	51.62	50.74	45.14	44.38	44.58	44.79	44.96	44.91	45.04	46.97	48.83
2016	42.85	42.78	42.07	37.58	36.97	37.13	37.30	37.44	37.39	37.50	39.05	40.54
2017	45.83	45.75	44.99	40.16	39.50	39.67	39.85	40.00	39.95	40.07	41.74	43.35
2018	52.90	52.81	51.92	46.23	45.46	45.67	45.88	46.05	45.99	46.13	48.10	49.98
2019	60.16	60.06	59.03	52.47	51.58	51.82	52.06	52.26	52.19	52.35	54.62	56.79
2020	64.72	64.61	63.50	56.40	55.43	55.69	55.95	56.17	56.10	56.27	58.72	61.08
2021	66.34	66.23	65.09	57.81	56.82	57.09	57.35	57.58	57.51	57.68	60.20	62.61
2022	68.00	67.88	66.71	59.25	58.24	58.51	58.79	59.02	58.94	59.12	61.70	64.17
2023	69.70	69.58	68.38	60.73	59.69	59.97	60.25	60.49	60.41	60.60	63.24	65.77
2024	71.43	71.30	70.07	62.24	61.17	61.46	61.75	61.99	61.91	62.10	64.81	67.41
2025	73.22	73.09	71.83	63.80	62.71	63.00	63.30	63.55	63.46	63.66	66.43	69.10

Under the Fixed Price Option, the Company shall pay Seller the Off-Peak Avoided Cost pursuant to Table 1 for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to the provisions of Section 4.3 of the Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases shall be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

(M)

Advice No. 06-26 Issued October 20, 2006 Pamela Grace Lesh, Vice President

First Revision of Sheet No. 201-11 Canceling Original Sheet No. 201-11

#### **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

(M)

#### **MARKET BASED PRICE OPTIONS:**

Market Based Price Options include Option 2, Deadband Index Gas Price; Option 3, Index Gas Price; and Option 4, Dow Jones Mid-Columbia Daily On- and Off-Peak Electricity Firm Price Index (DJ-Mid-C Firm Index). The price components for pricing Options 2 and 3 are defined as follows:

On Peak Price: P<sub>Peak</sub>

Off Peak Price: P<sub>Off</sub>

Variable Operating and Maintenance,

Fixed Costs, and Gas Transportation (Table 6): VFG

Capacity Value (Table 7):

Heat Rate: HR = 6,776 BTU/kWh

Losses: 1.9%

Forecasted Gas Price (Table 5): GP<sub>F</sub>

First of Month\* Northwest Pipeline Corp. Canadian Border Index as Reported in Platts

Inside FERC's Gas Market Report GP<sub>Sumas</sub>

First of Month\* one-month spot price averages for AECO/NIT transactions as Reported in

Canadian Gas Price Reporter

Natural Gas Market Report (in US dollars): GP<sub>AFCO</sub>

Monthly Indexed Gas Price:  $GP_{MI} = (GP_{Sumas} + GP_{AECO})/2$ 

Deadband Gas Index: GP<sub>DB</sub>

Where:

If GP<sub>MI</sub>>GP<sub>F</sub>

 $GP_{DB} = Minimum of (GP_{MI} or 1.1*GP_F)$ 

Otherwise

 $GP_{DB} = Maximum of (GP_{MI} or .9*GP_{F})$ 

<sup>\* &</sup>quot;First of Month" means the first such monthly issuance.

## PRICING OPTIONS FOR STANDARD CONTRACTS (Continued) MARKET BASED PRICE OPTIONS (Continued)

(M)

Tables 3 and 4 below list applicable rates for Options 2 (Deadband Index Gas Price Option) and 3 (Index Gas Price Option) for the period through 2008. The monthly On- and Off-Peak prices will be applied for all Market Based Price Options.

	TABLE 3											
	On-Peak Resource Sufficiency Rate (\$/MWH)											
						<u>Month</u>						
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	May	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67.97	66.95	64.20	69.29	74.39
2006	77.96	74.39	69.29	59.10	49.42	50.44	69.04	75.92	72.40	69.04	71.08	74.13
2007	76.43	72.86	67.77	57.58	47.90	48.91	68.02	74.90	71.38	68.02	70.06	73.12
2008	74.90	71.33	66.23	56.04	46.36	47.38	66.49	73.37	69.85	66.49	68.53	71.58

	TABLE 4											
	Off-Peak Resource Sufficiency Rate (\$/MWH)											
	Month											
Year	<u>Jan</u>	<u>Feb</u>	Mar	<u>Apr</u>	May	<u>Jun</u>	<u>Jul</u>	Aug	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	56.76	55.74	54.01	58.59	64.45
2006	65.98	62.93	59.87	49.93	42.29	39.23	58.59	61.14	59.61	57.58	59.61	63.18
2007	63.43	60.38	57.32	47.90	40.25	37.20	57.83	60.38	58.85	56.81	58.85	62.42
2008	61.90	58.85	55.79	46.36	38.72	35.66	56.30	58.85	57.32	55.28	57.32	60.88

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#### **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

MARKET BASED PRICE OPTIONS (Continued)

(M)

#### 2) Deadband Index Gas Price Option

The Deadband Index Gas Price Option bases the fuel price component of the energy rate on comparisons between the Forecast Gas Price (Table 5) and the simple average of the First of Month gas indices for Sumas and AECO trading hubs. The Northwest Pipeline Gas Index (Sumas) will be as reported in Platts Inside FERC's Gas Market Report. The AECO/NIT (AECO) Gas Index will be as reported in Canadian Gas Price Reporter Natural Gas Market Report (in US dollars). The fuel price component used will be bound between 90 percent and 110 percent of the natural gas price forecast but based on the then current gas price.

The price paid per MWh will be:

 $P_{Peak}$  =  $GP_{DB}*HR/1,000/(1-Losses) + VFG + C$  $P_{Off}$  =  $GP_{DB}*HR/1,000/(1-Losses) + VFG$ 

Under the Deadband method, the Company shall pay Seller the Off-Peak prices for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to the provisions of Section 4.3 of the Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases shall be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

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#### **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

MARKET BASED PRICE OPTIONS (Continued)

(M)

#### 3) Index Gas Price Option

The Index Gas Price Option is the simple average of the First of Month gas indices for Sumas and AECO trading hubs uses in establishing the Avoided Costs. The Sumas Gas Index will be as reported in <a href="Politics Inside FERC's Gas Market Report">Platts Inside FERC's Gas Market Report</a>. The AECO Gas Index will be as reported in the <a href="Canadian Gas Price Reporter Natural Gas Market Report">Canadian Gas Price Reporter Natural Gas Market Report</a> (in US dollars).

The price paid per MWh will be:

 $P_{Peak}$  =  $GP_{MI}*HR/1,000/(1-Losses) + VFG + C$  $P_{Off}$  =  $GP_{MI}*HR/1,000/(1-Losses) + VFG$ 

Under the Index Gas Price, the Company shall pay Seller the Off-Peak Prices for: (a) for all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to the provisions of Section 4.3 of the Standard Contract; (d) for Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases shall be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

#### 4) Mid-C Index Price Option

Under this option, prices paid per MWh will be based on the DJ-Mid-C Firm Index plus  $0.204~\rm c$  per kWh for wholesale wheeling.

## PRICING OPTIONS FOR STANDARD CONTRACTS (Continued) MARKET BASED PRICE OPTIONS (Continued)

(M)

The tables below contain the pricing components for Option 1 (Fixed Price Option) Option 2 (Deadband Index Gas Price Option) and Option 3 (Index Gas Price Option).

						TABLE 5	5					
	Forecasted Gas Price - GP <sub>F</sub> (\$/MMBTU)											
						<u>Month</u>	_					
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>
2009	4.778	4.772	4.689	4.088	4.011	4.035	4.056	4.076	4.066	4.079	4.271	4.459
2010	4.097	4.089	4.011	3.508	3.440	3.458	3.476	3.492	3.487	3.499	3.673	3.840
2011	4.832	4.823	4.730	4.137	4.057	4.078	4.100	4.119	4.112	4.127	4.332	4.528
2012	5.136	5.126	5.027	4.398	4.312	4.335	4.358	4.378	4.371	4.386	4.604	4.813
2013	5.836	5.825	5.713	4.997	4.900	4.926	4.952	4.974	4.967	4.984	5.232	5.469
2014	6.475	6.462	6.337	5.543	5.435	5.464	5.494	5.518	5.510	5.529	5.804	6.067
2015	6.493	6.481	6.356	5.559	5.451	5.480	5.509	5.534	5.526	5.545	5.820	6.085
2016	5.213	5.203	5.103	4.463	4.376	4.400	4.423	4.443	4.436	4.452	4.673	4.885
2017	5.615	5.604	5.496	4.807	4.713	4.739	4.764	4.785	4.778	4.795	5.033	5.261
2018	6.599	6.586	6.459	5.650	5.540	5.569	5.599	5.624	5.616	5.635	5.915	6.184
2019	7.608	7.594	7.447	6.514	6.387	6.421	6.456	6.485	6.475	6.498	6.820	7.130
2020	8.236	8.220	8.061	7.051	6.914	6.951	6.988	7.019	7.009	7.033	7.382	7.717
2021	8.441	8.425	8.263	7.227	7.086	7.124	7.162	7.195	7.184	7.209	7.567	7.910
2022	8.653	8.636	8.469	7.408	7.264	7.302	7.341	7.375	7.364	7.389	7.756	8.108
2023	8.869	8.852	8.681	7.593	7.445	7.485	7.525	7.559	7.548	7.574	7.950	8.311
2024	9.091	9.073	8.898	7.783	7.631	7.672	7.713	7.748	7.736	7.763	8.148	8.519
2025	9.318	9.300	9.120	7.978	7.822	7.864	7.906	7.942	7.930	7.957	8.352	8.731

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#### **SCHEDULE 201 (Continued)**

**(T)** 

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
MARKET BASED PRICE OPTIONS (Continued)

(M)

Table 6 contains the Variable O&M and Fixed Costs that are derived from a natural gas-fired CCCT as identified in the Company's 2004 Integrated Resource Plan.

						TABLE 6	<u>i</u>					
	Variable O &M, Fixed Costs and Gas Transportation Forecast – VFG (\$/MWH)											
						<u>Month</u>						
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
2009	5.83	5.83	5.82	5.75	5.74	5.74	5.74	5.74	5.74	5.74	5.77	5.79
2010	5.87	5.87	5.86	5.80	5.80	5.80	5.80	5.80	5.80	5.80	5.82	5.84
2011	6.09	6.09	6.08	6.01	6.00	6.00	6.01	6.01	6.01	6.01	6.03	6.06
2012	6.26	6.26	6.25	6.17	6.16	6.16	6.17	6.17	6.17	6.17	6.20	6.22
2013	6.49	6.49	6.47	6.39	6.38	6.38	6.38	6.38	6.38	6.39	6.42	6.44
2014	6.71	6.70	6.69	6.59	6.58	6.58	6.59	6.59	6.59	6.59	6.63	6.66
2015	6.85	6.85	6.84	6.74	6.73	6.73	6.73	6.74	6.74	6.74	6.77	6.80
2016	6.84	6.84	6.83	6.75	6.74	6.74	6.74	6.75	6.75	6.75	6.77	6.80
2017	7.05	7.05	7.03	6.95	6.94	6.94	6.95	6.95	6.95	6.95	6.98	7.01
2018	7.32	7.32	7.31	7.21	7.20	7.20	7.20	7.21	7.20	7.21	7.24	7.27
2019	7.61	7.60	7.59	7.47	7.46	7.46	7.47	7.47	7.47	7.47	7.51	7.55
2020	7.84	7.83	7.82	7.69	7.68	7.68	7.69	7.69	7.69	7.69	7.73	7.77
2021	8.04	8.04	8.02	7.89	7.87	7.88	7.88	7.89	7.89	7.89	7.93	7.97
2022	8.24	8.23	8.21	8.09	8.07	8.07	8.08	8.08	8.08	8.08	8.13	8.17
2023	8.44	8.44	8.42	8.28	8.27	8.27	8.28	8.28	8.28	8.28	8.33	8.37
2024	8.64	8.63	8.61	8.48	8.46	8.47	8.47	8.47	8.47	8.48	8.52	8.57
2025	8.86	8.86	8.83	8.70	8.68	8.68	8.69	8.69	8.69	8.69	8.74	8.79

## PRICING OPTIONS FOR STANDARD CONTRACTS (Continued) MARKET BASED PRICE OPTIONS (Continued)

(M)

Table 7 represents the variable C in the formulas for the Option 2 (Deadband Index Gas Price Option) and Option 3 (Index Gas Price Option).

						TABLE 7	7					
	Capacity Value - C (\$/MWH)											
	<u>Month</u>											
Year	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	May	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>
2009	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57	25.57
2010	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21	26.21
2011	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87	26.87
2012	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54	27.54
2013	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23	28.23
2014	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94
2015	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66	29.66
2016	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30	30.30
2017	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26	31.26
2018	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94
2019	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74	32.74
2020	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45	33.45
2021	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39	34.39
2022	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25	35.25
2023	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25	36.25
2024	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92	36.92
2025	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97	37.97

Original Sheet No. 201-18

#### **SCHEDULE 201 (Continued)**

#### MONTHLY SERVICE CHARGE

(M)

Each separately metered QF not associated with a retail Consumer account shall be charged \$10.00 per month.

#### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard Contract:

QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount shall be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment economic conditions or claims experience may warrant.

Such insurance shall include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies shall not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller shall furnish the Company with certificates of insurance together with the endorsements required herein. The Company shall have the right to inspect the original policies of such insurance.

QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

#### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's Service Territory, the Seller is responsible for the transmission of power at its cost to the Company's Service Territory.

(T)(M)

#### INTERCONNECTION REQUIREMENTS

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Except as otherwise provided in a generation interconnection agreement between the Company and Seller, if the QF is located within the Company's Service Territory, switching equipment capable of isolating the QF from the Company's system shall be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

The QF project interconnecting with the Company's distribution system must comply with all requirements for interconnection as established in Rule C or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff, as applicable. The Seller shall bear full responsibility for the installation and safe operation of the interconnection facilities.

#### (IV (D)

# DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE THE STANDARD RATES AND STANDARD CONTRACT

A QF will be eligible to receive the standard rates and Standard Contract if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the same person(s) or affiliated person(s), and located at the same site, does not exceed 10 MW.

#### **Definition of Person(s) or Affiliated Person(s)**

As used above, the term "same person(s)" or "affiliated person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the same person(s) or affiliated person(s) solely because they are developed by a single entity.

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE THE STANDARD RATES AND STANDARD CONTRACT (Continued)

Definition of Person(s) or Affiliated Person(s) (Continued)

Furthermore, two facilities will not be held to be owned or controlled by the same person(s) or affiliated person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit. A unit of Oregon local government may also be a "passive investor" if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

#### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for the standard rates and Standard Contract is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for the standard rates and standard contract is sought.

#### Shared Interconnection and Infrastructure

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to the standard rates and Standard Contract will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for the standard rates and Standard Contract so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection contract requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard Contract.

#### SCHEDULE 201 (Concluded)

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE THE STANDARD RATES AND STANDARD CONTRACT (Continued)

#### **Dispute Resolution**

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to the standard rates and Standard Contract. Any dispute concerning a QF's entitlement to the standard rates and Standard Contract shall be presented to the Commission for resolution.

## SPECIAL CONDITIONS (M) (D)

- 1. Delivery of energy by Seller shall be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Consumer, any net credit over \$10.00 shall be paid by check to the Consumer.
- 3. Contracts entered into pursuant to this schedule shall not terminate prior to the Standard or negotiated contract's termination date if the 1978 Public Utility Regulatory Policies act (PURPA) is repealed.

#### **TERM OF AGREEMENT**

Not less than one year and not to exceed 20 years.

#### **RULES AND REGULATIONS**

Service and rates under this schedule are subject to all applicable General Rules and Regulations contained in the Tariff of which this schedule is a part.

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# Advice No. 06-26 Appendix 1, Schedule 201 Standard Contract Power Purchase Agreement

Appendix 1, Schedule 201 Standard Contract Power Purchase Agreement Effective November 20, 2006

#### STANDARD CONTRACT POWER PURCHASE AGREEMENT

THIS AGREEMENT, entered into this day, 200	, is ectric
RECITALS	
for the generation of electric power located inCo	acility ounty, owatt
Seller intends to operate the Facility as a "Qualifying Facility," as such te defined in Section 3.1.3, below.	rm is
Seller shall sell and PGE shall purchase the entire Net Output, as such te defined in Section 1.19, below, from the Facility in accordance with the terms conditions of this Agreement.	

#### <u>AGREEMENT</u>

NOW, THEREFORE, the Parties mutually agree as follows:

#### **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit B provided by Seller in accordance with Section 4.4 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Billing Period" means a period between PGE's readings of its power purchase billing meter at the Facility in the normal course of PGE's business. Such periods typically vary and may not coincide with calendar months.
- 1.3. "Capacity Value" has the meaning provided for in the Tariff (as defined below).
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.
- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable which shall require, among other things, that all of the following events have occurred:

Appendix 1, Schedule 201 Standard Contract Power Purchase Agreement Effective November 20, 2006

- 1.5.1. PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in amounts required by this Agreement and in accordance with all other terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.27;
- 1.5.3. After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the operation of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. PGE has received a certificate addressed to PGE from an LPE stating that in accordance with the Generation Interconnection Agreement, all required interconnection facilities have been constructed, all required interconnection tests have been completed; and the Facility is physically interconnected with PGE's electric system.
- 1.5.5. PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.6. "Contract Price" means the applicable price as selected by Seller in Section 5.
- 1.7. "Contract Year" means each twelve (12) month period commencing at 00:00 hours on January 1 and ending on 24:00 hours on December 31 falling at least partially in the Term of this Agreement.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.
- 1.9. "Environmental Attributes" means any and all current or future credits, benefits, emissions reductions, environmental air quality credits, emissions reduction credits, offsets and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance attributable to the Facility during the Term, or otherwise attributable to the generation, purchase, sale or use of energy from or by the Facility during the Term, including without limitation any of the same arising

Appendix 1, Schedule 201 Standard Contract Power Purchase Agreement Effective November 20, 2006

out of legislation or regulation concerned with oxides of nitrogen, sulfur or carbon, with particulate matter, soot or mercury, or implementing the United Nations Framework Convention on Climate Change (the "UNFCCC") or the Kyoto Protocol to the UNFCCC or crediting "early action" emissions reduction, or laws or regulations involving or administered by the Clean Air Markets Division of the Environmental Protection Agency or successor administrator, or any State or federal entity given jurisdiction over a program involving transferability of Environmental Attributes, and any Green Tag Reporting Rights to such Environmental Attributes.

- 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Forward Replacement Price" means the price at which PGE, acting in a commercially reasonable manner, purchases for delivery at the Point of Receipt a replacement for any Net Output that Seller is required to deliver under this Agreement plus (i) costs reasonably incurred by PGE in purchasing such replacement Net Output, and (ii) additional transmission charges, if any, reasonably incurred by PGE in causing replacement energy to be delivered to the Point of Delivery.
- 1.12. "Generation Interconnection Agreement" means the generation interconnection agreement to be entered into separately between Seller and PGE, providing for the construction, operation, and maintenance of PGE's interconnection facilities required to accommodate deliveries of Seller's Net Output.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy Value" means for a Contract Year: zero, unless the Net Output is less than Minimum Net Output and the mean Dow Jones Mid C Index Price is greater than the Contract Price, in which case Lost Energy Value equals: (Minimum Net Output Net Output) X (the lower of the mean Contract Price or the Mean Dow Jones Mid C Index Price mean Contract Price).
- 1.16. "Mid-Columbia" means an area which includes points at any of the switchyards associated with the following four hydro projects: Rocky Reach, Rock Island, Wanapum and Priest Rapids. These switchyards include: Rocky Reach, Rock Island, Wanapum, McKenzie, Valhalla, Columbia, Midway and Vantage. Mid-Columbia shall also include points in the "Northwest Hub," as defined by Bonneville Power Administration. For scheduling purposes, the footprint described above shall dictate the

delivery point name for the then current Western Electricity Coordinating Council ("WECC") scheduling protocols. If the footprint changes during the Term, a mutually agreed upon footprint that describes an area containing the most liquidity for trading purposes shall apply.

- 1.17. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.18. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.19. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses and other Net Output does not include any environmental attributes.
  - 1.20. "Off-Peak Hours" has the meaning provided in the Tariff.
  - 1.21. "On-Peak Hours" has the meaning provided in the Tariff.
- 1.22. "Point of Delivery" means the high side of the generation step up transformer(s) located at the point of interconnection between the Facility and PGE's distribution or transmission system, as specified in the Generation Interconnection Agreement.
- 1.23. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.24. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.

- 1.25. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit C.
- 1.26. "Senior lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.
- 1.27. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit D.
- 1.28. "Step-in rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.29. "Tariff" shall mean PGE rate Schedule 201 filed with the Oregon Public Utilities Commission in effect on the Effective Date of this Agreement and attached hereto as Exhibit E.
- 1.30. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.31. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.32. References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

## SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1 This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2 Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
  - 2.2.1 By \_\_\_\_\_ [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
  - 2.2.2 By \_\_\_\_\_ [date to be determined by the Seller] Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
  - 2.2.3 In the event Seller is unable to meet the requirements of Sections 2.2.1 and 2.2.2, Seller shall pay damages equal to the Lost Energy Value. In calculating the Lost Energy Value for use in this section, the Minimum Net Output shall be prorated to account for any operational delay.

2.3 This Agreement shall terminate on \_\_\_\_\_\_\_, \_\_\_\_ [date to be chosen by Seller], up to 20 years from the Effective Date, or the date the Agreement is terminated in accordance with Section 10 or 12.2, whichever is earlier ("Termination Date").

## **SECTION 3: REPRESENTATIONS AND WARRANTIES**

3.1	Seller	and PGE represent, covenant, and v	warrant as follows:
,	3.1.1	Seller warrants it is a	_ duly organized under the laws
Ot		•	

- 3.1.2 Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
- 3.1.3 Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
- 3.1.4 Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5 Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
- 3.1.6 Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7 Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.

3.1.	8	Seller warrants	that	Net	Dependable	Capacity	Of	the	Facility	' IS
		kW.								
by the F	a	Seller estimates cility to PGE is naclude in its resort			kilowatt-ho					

- 3.1.10 Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output").
- 3.1.11 Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.12 PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.13 Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard Contract approved by the Commission at the time this Agreement is executed. Seller will provide, upon request by Buyer not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. Buyer agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except Buyer will provide all such confidential information to the Public Utility Commission of Oregon upon the Commission's request.

## SECTION 4: DELIVERY OF POWER

- 4.1 Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
- 4.2 Provided Seller has elected the Contract Price options in Section 5.1, 5.2, or 5.3, Seller shall deliver to PGE from the Facility either a) a minimum of seventy-five percent (75%) of its average annual Net Output or b) the Alternative Minimum Amount as defined in Exhibit A during each Contract Year (hereinafter "Minimum Net Output"), provided that such Minimum Net Output for the first or last Contract Year during which Commercial Operations begins shall be reduced pro rata to reflect the Commercial Operation Date, and further provided that such Minimum Net Output shall be reduced on a pro-rata basis for any periods during a Contract Year that the Facility was prevented from generating electricity for reasons of Force Majeure. PGE shall pay Seller the Contract Price for all delivered Net Output.

- 4.3 Provided Seller has elected the Contract Price options in Section 5.1, 5.2, or 5.3, Seller agrees that if Seller does not deliver the Minimum Net Output each Contract Year, PGE will suffer losses equal to the Lost Energy Value. As damages for Seller's failure to deliver the Minimum Net Output (subject to adjustment for reasons of Force Majeure as provided in Section 4.2) in any Contract Year, notwithstanding any other provision of this Agreement, the purchase price payable by PGE for future deliveries shall be reduced until Lost Energy Value is recovered. PGE and Seller shall work together in good faith to establish the period, in monthly amounts, of such reduction so as to avoid Seller's default on its commercial or financing agreements necessary for its continued operation of the Facility. For QF Facilities sized at 100 kW or smaller, the provisions of this section shall only apply to a failure to deliver the Minimum Net Output in any two Contract Years.
- 4.4 Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit B or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.10 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with the written consent of PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000kW.
- 4.5 To the extent not otherwise provided in the Generation Interconnection Agreement, all costs associated with the modifications to PGE's interconnection facilities or electric system occasioned by or related to the interconnection of the Facility with PGE's system, or any increase in generating capability of the Facility, or any increase of delivery of Net Dependable Capacity from the Facility, shall be borne by Seller.
- 4.6 Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Environmental Attributes produced with respect to the Facility, and PGE shall not report under such program that such Environmental Attributes belong to it.

## **SECTION 5: CONTRACT PRICE**

PGE shall pay Seller for the price options 5.1, 5.2, 5.3 or 5.4, as selected below, pursuant to the Tariff. Seller shall indicate which price option it chooses by marking its choice below with an X. If Seller chooses the option in Section 5.1, it must mark below a single second option from Section 5.2, 5.3, or 5.4 for all Contract Years in excess of 15 until the remainder of the Term. Except as provided herein, Sellers selection is for the Term and shall not be changed during the Term.

5.1	 Fixed Price
5.2	Deadband Index Gas Price
5.3	Index Gas Price
5.4	Mid-C Index Rate Price

## SECTION 6: OPERATION AND CONTROL

- 6.1 Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 6.2 Seller agrees to provide sixty (60) days written advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 6.3 If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

## **SECTION 7: CREDITWORTHINESS**

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Minimum Net Output / 8760). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

## **SECTION 8: METERING**

- 8.1 PGE shall design, furnish, install, own, inspect, test, maintain and replace all metering equipment at Seller's cost and as required pursuant to the Generation Interconnection Agreement.
- 8.2 Metering shall be performed at the location and in a manner consistent with this Agreement and as specified in the Generation Interconnection Agreement. All Net Output purchased hereunder shall be adjusted to account for electrical losses, if any, between the point of metering and the Point of Delivery, so that he purchased amount reflects the net amount of power flowing into PGE's system at the Point of Delivery.
- 8.3 PGE shall periodically inspect, test, repair and replace the metering equipment as provided in the Generation Interconnection Agreement. If any of the inspections or tests discloses an error exceeding two (2%) percent of the actual energy delivery, either fast or slow, proper correction, based upon the inaccuracy found, shall be made of previous readings for the actual period during which the metering equipment rendered inaccurate measurements if that period can be ascertained. If the actual period cannot be ascertained, the proper correction shall be made to the measurements taken during the time the metering equipment was in service since last tested, but not exceeding three (3) months, in the amount the metering equipment shall have been shown to be in error by such test. Any correction in billings or payments resulting from a correction in the meter records shall be made in the next monthly billing or payment rendered. Such correction, when made, shall constitute full adjustment of any claim between Seller and PGE arising out of such inaccuracy of metering equipment.
- 8.4 To the extent not otherwise provided in the Generation Interconnection Agreement, all of PGE's costs relating to all metering equipment installed to accommodate Seller's Facility shall be borne by Seller.

## SECTION 9: BILLINGS, COMPUTATIONS AND PAYMENTS

- 9.1 On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement, the Generation Interconnection Agreement, and any other agreement related to the Facility between the Parties or otherwise.
- 9.2 Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

## SECTION 10: DEFAULT, REMEDIES AND TERMINATION

10.1 In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:

- 10.1.1 Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 10.1.2 Seller's failure to provide default security, if required by Section 7, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 10.1.3 Seller's failure to deliver the Minimum Net Output for two consecutive Contract Years.
- 10.1.4 If Seller modifies the Facility such that the Nameplate Capacity Rating exceeds 10,000 kW.
- 10.1.5 If Seller is no longer a "Qualifying Facility".
- 10.1.6 Failure of PGE to make any required payment pursuant to Section 9.1.
- 10.2 In the event of a default hereunder, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party, and may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. Such termination shall be effective upon the date of delivery of notice, as provided in Section 21.1. The rights provided in this Section 10 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 10.3 If this Agreement is terminated as provided in this Section 10 PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 10.4 If this Agreement is terminated as a result of Seller's default, Seller shall pay PGE the positive difference, if any, obtained by subtracting the Contract Price from the sum of the Forward Replacement Price for the Minimum Net Output that Seller was otherwise obligated to provide for a period of twenty-four (24) months from the date of termination. Accounts owed by Seller pursuant to this paragraph shall be due within five (5) business days after any invoice from PGE for the same.
- 10.5 In the event PGE terminates this Agreement pursuant to this Section 10, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.

10.6 Sections 10.1 10.3 10.4 10.5, 11, and 20.2 shall survive termination of this Agreement.

## SECTION 11: INDEMNIFICATION AND LIABILITY

- 11.1 Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 11.2 PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 11.3 Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 11.4 NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

## **SECTION 12: INSURANCE**

12.1 Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any

insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

- 12.2 Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 12.3 Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

## **SECTION 13: FORCE MAJEURE**

13.1 As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 13.2 If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
  - 13.2.1 the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
  - 13.2.2 the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
  - 13.2.3 the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 13.3 No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 13.4 Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

## SECTION 14: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

## SECTION 15: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

## **SECTION 16: PARTIAL INVALIDITY**

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

## **SECTION 17: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

## SECTION 18: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

## SECTION 19: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

## **SECTION 20: ENTIRE AGREEMENT**

- 20.1 This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 20.2 By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

### **SECTION 21: NOTICES**

All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

Γο Seller:		

wit	th a copy to:	
То	PGE:	Contracts Manager QF Contracts, 3WTCBR06 PGE - 121 SW Salmon St. Portland, Oregon 97204
		may change the person to whom such notices are addressed, viding written notices thereof in accordance with this Section
		REOF, the Parties hereto have caused this Agreement to be e names as of the Effective Date.
PGE		
Name: _		
(Name Se	eller)	
Name: _		

## EXHIBIT A MINIMUM NET OUTPUT

Seller may designate an alternative Minimum Net Output to seventy-five (75%) percent of annual Net Output in this exhibit ("Alternative Minimum Amount"). Such Alternative Minimum Amount, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of the Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.

# EXHIBIT B DESCRIPTION OF SELLER'S FACILITY

[Seller to Complete]

## **EXHIBIT C**

## REQUIRED FACILITY DOCUMENTS

## [Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

#### **EXHIBIT D**

### START-UP TESTING

## [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments;
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests;
- 4. Energization of transformers:
- 5. Synchronizing tests (manual and auto):
- 6. Stator windings dielectric test;
- Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs:
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

## **EXHIBIT E**

## **TARIFF**

[Attach currently in-effect rate Schedule 201]

## Advice No. 06-26 Off System Standard Contract

## STANDARD CONTRACT OFF SYSTEM POWER PURCHASE AGREEMENT

THIS AGREEMENT, entered into this day, 200	
RECITALS	
for the generation of electric power located inCou	icility unty, owatt
Seller intends to operate the Facility as a "Qualifying Facility," as such ter defined in Section 3.1.3, below.	m is
Seller shall sell and PGE shall purchase the entire Net Output, as such ter defined in Section 1.19, below, from the Facility in accordance with the terms conditions of this Agreement.	

## <u>AGREEMENT</u>

NOW, THEREFORE, the Parties mutually agree as follows:

## **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit B provided by Seller in accordance with Section 4.4 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.3. "Capacity Value" has the meaning provided for in the Tariff (as defined below).
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.
- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable which shall require, among other things, that all of the following events have occurred:

- 1.5.1. PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in amounts required by this Agreement and in accordance with all other terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.27;
- 1.5.3. After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the operation of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed, and all required interconnection tests have been completed;
- 1.5.5. PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
  - 1.5.6. PGE has received a copy of the Transmission Agreement.
- 1.6. "Contract Price" means the applicable price as selected by Seller in Section 5.
- 1.7. "Contract Year" means each twelve (12) month period commencing at 00:00 hours on January 1 and ending on 24:00 hours on December 31 falling at least partially in the Term of this Agreement.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.
- 1.9. "Environmental Attributes" means any and all current or future credits, benefits, emissions reductions, environmental air quality credits, emissions reduction credits, offsets and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance attributable to the Facility during the Term, or otherwise attributable to the generation, purchase, sale or use of energy from or by the Facility during the Term, including without limitation any of the same arising

out of legislation or regulation concerned with oxides of nitrogen, sulfur or carbon, with particulate matter, soot or mercury, or implementing the United Nations Framework Convention on Climate Change (the "UNFCCC") or the Kyoto Protocol to the UNFCCC or crediting "early action" emissions reduction, or laws or regulations involving or administered by the Clean Air Markets Division of the Environmental Protection Agency or successor administrator, or any State or federal entity given jurisdiction over a program involving transferability of Environmental Attributes, and any Green Tag Reporting Rights to such Environmental Attributes.

- 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Forward Replacement Price" means the price at which PGE, acting in a commercially reasonable manner, purchases for delivery at the Point of Receipt a replacement for any Net Output that Seller is required to deliver under this Agreement plus (i) costs reasonably incurred by PGE in purchasing such replacement Net Output, and (ii) additional transmission charges, if any, reasonably incurred by PGE in causing replacement energy to be delivered to the Point of Receipt. If PGE elects not to make such a purchase, costs of purchasing replacement Net Output shall be Dow Jones Mid C Index Price for such energy not delivered, plus any additional cost or expense incurred as a result of Seller's failure to deliver, as determined by PGE in a commercially reasonable manner (but not including any penalties, ratcheted demand or similar charges).
- 1.12. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with \_\_\_\_\_ electric system.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy Value" means for a Contract Year: zero, unless the Net Output is less than Minimum Net Output and the mean Dow Jones Mid C Index Price is greater than the Contract Price, in which case Lost Energy Value equals: (Minimum Net Output Net Output) X (the lower of the mean Contract Price or the mean Dow Jones Mid C Index Price mean Contract Price) minus Transmission Curtailment Replacement Energy Cost if any for like period.
- 1.16. "Mid-Columbia" means an area which includes points at any of the switchyards associated with the following four hydro projects: Rocky Reach, Rock

Island, Wanapum and Priest Rapids. These switchyards include: Rocky Reach, Rock Island, Wanapum, McKenzie, Valhalla, Columbia, Midway and Vantage. Mid-Columbia shall also include points in the "Northwest Hub," as defined by Bonneville Power Administration. For scheduling purposes, the footprint described above shall dictate the delivery point name for the then current Western Electricity Coordinating Council ("WECC") scheduling protocols. If the footprint changes during the Term, a mutually agreed upon footprint that describes an area containing the most liquidity for trading purposes shall apply.

- 1.17. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.18. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.19. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and does not include any environmental attributes.
  - 1.20. "Off-Peak Hours" has the meaning provided in the Tariff.
  - 1.21. "On-Peak Hours" has the meaning provided in the Tariff.
  - 1.22. "Point of Receipt" means the PGE System.
- 1.23. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.24. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.

- 1.25. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit C.
- 1.26. "Senior lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.
- 1.27. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit D.
- 1.28. "Step-in rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.29. "Tariff" shall mean PGE rate Schedule 201 filed with the Oregon Public Utilities Commission in effect on the Effective Date of this Agreement and attached hereto as Exhibit E.
- 1.30. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.31. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.32. "Transmission Agreement" means an Agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.33. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Receipt (for any reason other than Force Majeure)
- 1.34. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the difference between Dow Jones Mid C Index Price Contract Price X curtailed energy for periods of Transmission Curtailment.
- 1.35. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.36. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Receipt for a term not less than the Term of this Contract.
- 1.37. References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

### SECTION 2: TERM; COMMERCIAL OPERATION DATE

2.1 This Agreement shall become effective upon execution by both Parties ("Effective Date").
2.2 Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
2.2.1 By [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
2.2.2 By [date to be determined by the Seller] Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
2.2.3 In the event Seller is unable to meet the requirements of Sections 2.2.1 and 2.2.2, Seller shall pay damages equal to the Lost Energy Value. In calculating the Lost Energy Value for use in this section, the Minimum Net Output shall be prorated to account for any operational delay.
2.3 This Agreement shall terminate on, [date to be chosen by Seller], up to 20 years from the Effective Date, or the date the Agreement is terminated in accordance with Section 9 or 12.2, whichever is earlier ("Termination Date").
SECTION 3: REPRESENTATIONS AND WARRANTIES
3.1 Seller and PGE represent, covenant, and warrant as follows:
3.1.1 Seller warrants it is a duly organized under the laws of
3.1.2 Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having

3.1.3 Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.

authority to which Seller is subject.

- 3.1.4 Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5 Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
- 3.1.6 Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7 Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8 Seller warrants that Net Dependable Capacity of the Facility is \_\_\_\_\_ kW.
- 3.1.9 Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is \_\_\_\_\_ kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10 Seller will schedule and deliver from the Facility to PGE at the Point of Receipt Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.11 Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.12 PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.13 Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard Contract approved by the Commission at the time this Agreement is executed. Seller will provide, upon request by Buyer not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. Buyer agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as

confidential except Buyer will provide all such confidential information to the Public Utility Commission of Oregon upon the Commission's request.

## **SECTION 4: DELIVERY OF POWER**

- 4.1 Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output from the Facility. Seller's Net Output shall be scheduled and delivered to PGE at the Point of Receipt in accordance with Section 4.5.
- 4.2 Provided Seller has elected the Contract Price options in Section 5.1, 5.2, or 5.3, Seller shall schedule and deliver to PGE from the Facility either a) a minimum of seventy-five percent (75%) of its average annual Net Output or b) the Alternative Minimum Amount as defined in Exhibit A during each Contract Year (hereinafter "Minimum Net Output"), provided that such Minimum Net Output for the first or last Contract Year during which Commercial Operations begins shall be reduced pro rata to reflect the Commercial Operation Date, and further provided that such Minimum Net Output shall be reduced on a pro-rata basis for any periods during a Contract Year that the Facility was prevented from generating electricity for reasons of Force Majeure. Scheduled and Delivered Net Output is subject to the Contract Price.
- 4.3 Provided Seller has elected the Contract Price options in Section 5.1, 5.2, or 5.3, Seller agrees that if Seller does not deliver the Minimum Net Output each Contract Year for reasons other than Transmission Curtailment, PGE will suffer losses equal to the Lost Energy Value. As damages for Seller's failure to deliver the Minimum Net Output (subject to adjustment for reasons of Force Majeure as provided in Section 4.2) in any Contract Year, notwithstanding any other provision of this Agreement the purchase price payable by PGE for future deliveries shall be reduced until Recoupment Value equals Lost Energy Value. If during such succeeding Contract Year Seller succeeds in delivering the Minimum Net Output for that Contract Year, then the purchase price payable by PGE for all deliveries in such Contract Year occurring after the Billing Period in which Seller first succeeds in delivering the Minimum Net Output for such Contract Year will be as set forth in Section 5.1, 5.2, or 5.3, as applicable. and Seller shall work together in good faith to establish the period, in monthly amounts, of such reduction so as to avoid Seller's default on its commercial or financing agreements necessary for its continued operation of the Facility, For QF Facilities sized at 100 kW or smaller, the provisions of this section shall only apply to a failure to deliver the Minimum Net Output in any two Contract Years.
- 4.4 Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit B or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.10 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with the written consent of PGE. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to

enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000kW.

- 4.5 Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 10:00:00 PPT on the last Business Day prior to the scheduled date of delivery. The Parties' respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.6 Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Environmental Attributes produced with respect to the Facility, and PGE shall not report under such program that such Environmental Attributes belong to it.

## **SECTION 5: CONTRACT PRICE**

PGE shall pay Seller for the price options 5.1, 5.2, 5.3 or 5.4, as selected below, pursuant to the Tariff. Seller shall indicate which price option it chooses by marking its choice below with an X. If Seller chooses the option in Section 5.1, it must mark below a single second option from Section 5.2, 5.3, or 5.4 for all Contract Years in excess of 15 until the remainder of the Term. Except as provided herein, Sellers selection is for the Term and shall not be changed during the Term.

5.1	 Fixed Price
5.2	Deadband Index Gas Price
5.3	Index Gas Price
5.4	Mid-C Index Rate Price

## SECTION 6: OPERATION AND CONTROL

6.1 Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility or transmission to PGE's electric system is curtailed, disconnected, suspended or interrupted, in whole or in part. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason

of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.

- 6.2 Seller agrees to provide 60 days written advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 6.3 If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance that could affect the generation, scheduling or delivery of energy to PGE, the time when such maintenance has occurred or will occur and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

## **SECTION 7: CREDITWORTHINESS**

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than ten (10) days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Minimum Net Output / 8760). ). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

## SECTION 8: BILLINGS, COMPUTATIONS AND PAYMENTS

- 8.1 On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement, and any other agreement related to the Facility between the Parties or otherwise.
- 8.2 Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

## SECTION 9: DEFAULT, REMEDIES AND TERMINATION

- 9.1 In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
  - 9.1.1 Seller's failure to meet the requirements as provided in Section 2.2.
  - 9.1.2 Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
  - 9.1.3 Seller's failure to provide default security, if required by Section 7, prior to delivery of any Net Output to PGE or within ten (10) days of notice.
  - 9.1.4 Seller's failure to deliver the Minimum Net Output for two consecutive Contract Years.
  - 9.1.5 If Seller modifies the Facility such that the Nameplate Capacity Rating exceeds 10,000 kW.
    - 9.1.6 If Seller is no longer a "Qualifying Facility".
  - 9.1.7 Failure of PGE to make any required payment pursuant to Section 8.1.
  - 9.1.8 Seller's failure to accurately schedule Net Output, as required by Section 4.5, where there is a demonstrated pattern of scheduling errors. Scheduling errors may include: scheduled energy that differs from Net Output by more than 10% for multiple monthly periods, or in cases where net deviations result in demonstrated excess payments by PGE to the Seller.
- 9.2 In the event of a default hereunder, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party, and may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. Such termination shall be effective upon the date of delivery of notice, as provided in Section 21.1. The rights provided in this Section 9 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 9.3 If this Agreement is terminated by PGE as provided in this Section 9, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of Seller's receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 9.4 If this Agreement is terminated as a result of Seller's default, Seller shall pay PGE the positive difference, if any, obtained by subtracting the Contract Price from the sum of the Forward Replacement Price for the Minimum Net Output that Seller was otherwise obligated to provide for a period of twenty-four (24) months from the date of termination plus any cost incurred for transmission purchased by PGE to deliver the

replacement power to the Point of Receipt and the estimated administrative cost to the utility to acquire replacement power. Accounts owed by Seller pursuant to this paragraph shall be due within five (5) business days after any invoice from PGE for the same.

- 9.5 In the event PGE terminates this Agreement pursuant to this Section 9, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 9.6 Sections 9.1, 9.3, 9.4, 9.5, 11, and 20.2 shall survive termination of this Agreement.

## SECTION 10: TRANSMISSION CURTAILMENTS

- 10.1 Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Sections 4.5 of this Agreement.
- 10.2 If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.5 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

## SECTION 11: INDEMNIFICATION AND LIABILITY

- 11.1 Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Receipt, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 11.2 PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Receipt, or otherwise arising out of this

Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.

- 11.3 Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 11.4 NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

## **SECTION 12: INSURANCE**

- 12.1 If the Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.
- 12.2 Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 12.3 Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to

provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

## SECTION 13: FORCE MAJEURE

- 13.1 As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes Transmission Curtailment, the cost or availability of resources to operate the Facility, or changes in market conditions that affect the price of energy or transmission, wind or water droughts and obligations for the payment of money when due.
- 13.2 If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
  - 13.2.1 the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
  - 13.2.2 the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
  - 13.2.3 the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 13.3 No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 13.4 Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

## **SECTION 14: SEVERAL OBLIGATIONS**

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

## SECTION 15: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

## **SECTION 16: PARTIAL INVALIDITY**

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

## **SECTION 17: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

## SECTION 18: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

## SECTION 19: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

## **SECTION 20: ENTIRE AGREEMENT**

- 20.1 This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 20.2 By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

## **SECTION 21: NOTICES**

21.1 All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:	
with a copy to:	
To PGE:	Contracts Manager QF Contracts, 3WTCBR06 PGE - 121 SW Salmon St. Portland, Oregon 97204
	may change the person to whom such notices are addressed, oviding written notices thereof in accordance with this Section
	EREOF, the Parties hereto have caused this Agreement to be ve names as of the Effective Date.
PGE	
By: Name: Title:	

(Name Seller)	•		
By:			
Name:			
Title:			

## EXHIBIT A MINIMUM NET OUTPUT

Seller may designate an alternative Minimum Net Output to seventy-five (75%) percent of annual Net Output in this exhibit ("Alternative Minimum Amount"). Such Alternative Minimum Amount, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of the Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.

## **EXHIBIT B**

## DESCRIPTION OF SELLER'S FACILITY

[Seller to Complete]

## **EXHIBIT C**

## REQUIRED FACILITY DOCUMENTS

## [Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement with interconnecting utility

Firm Transmission Agreement between Seller and Transmission Provider

Standard Contract Power Purchase Agreements Addendum between PGE and Seller

#### **EXHIBIT D**

### START-UP TESTING

## [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- 1. Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments:
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests;
- Energization of transformers:
- 5. Synchronizing tests (manual and auto):
- 6. Stator windings dielectric test;
- Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs:
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering:
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

**EXHIBIT E** 

**TARIFF** 

[Attach currently in-effect rate Schedule 201]

## UM 1931 PGE Exhibit 106

PGE's November 25, 2014 compliance filing in Docket No. UM 1610 responding to Order 14-058

Partial copy of PGE compliance filing including clean and redline versions of Schedule 201 and clean and redline (if available) versions of the Standard Renewable Off-System Variable PPA but not including the clean or redline versions of the remaining seven variants of PGE's contract forms.



Richard George
Assistant General Counsel

November 25, 2014

Via Electronic Filing and U.S. Mail

Public Utility Commission of Oregon Attn: Filing Center 3930 Fairview Industrial Drive SE P.O. Box 1088 Salem, OR 97308-1088

RE: UM 1610 – PGE's Supplemental Filing of Application to Update Schedule 201 Qualifying Facility Information

Portland General Electric (PGE) submits this filing pursuant to Oregon Revised Statutes 757.205, 757.210, and 758.505 through 758.555; Oregon Administrative Rules 860-029-0001 through 860-029-0100; Order No. 11-505; and Order No. 14-058. In addition to the electronic filing, enclosed are the original and three courtesy copies with a requested extension of the effective date to **December 17, 2014**:

Sheet Nos. 201-1 through Sheet Nos. 201-23
Standard Off-System Variable Power Purchase Agreement
Standard Off-System Non-Variable Power Purchase Agreement
Standard In-System Non-Variable Power Purchase Agreement
Standard In-System Variable Power Purchase Agreement
Standard Renewable Off-System Variable Power Purchase Agreement
Standard Renewable In-System Non-Variable Power Purchase Agreement
Standard Renewable In-System Non-Variable Power Purchase Agreement
Standard Renewable In-System Variable Power Purchase Agreement

PGE originally submitted this filing on May 30, 2014 and provided corrected redlines for some of the agreements on June 18, 2014. PGE also made supplemental filings on July 10, 2014, August 4, 2014, August 27, 2014, September 16, 2014, and November 10, 2014 extending the effective dates. During this lengthy period, PGE has participated with the other parties to this docket in several workshops and exchanges to revise the compliance filings to meet the compliance requirements of both Order No. 14-058 from Phase I of this docket and Order No. 11-505 implementing renewable avoided costs, but also to reach consensus on several other non-material changes and corrections. The enclosed documents reflect the consensus reached in those meetings. They include courtesy copies of red-lined versions of the Standard Power Purchase Agreements comparing them to the currently in-effect versions. Because no renewable versions are currently in effect, there are no red-lines of those agreements.

UM 1610 – PGE's Supplemental Filing Application to Update Schedule 201 Qualifying Facility Information November 25, 2014 Page 2

Should you have any questions or comments regarding this filing, please contact Rich George at (503) 464-7611 or Rob MacFarlane at (503) 464-8954.

Please direct all formal correspondence and requests to the following email address <a href="mailto:pge.opuc.filings@pgn.com">pge.opuc.filings@pgn.com</a>

Sincerely,

J. Richard George

Assistant General Counsel

Enclosures

cc: Service List - UM 1610

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

#### **PURPOSE**

To provide information about Standard Avoided Costs and Renewable Avoided Costs, Standard Power Purchase Agreements (PPA) and Negotiated PPAs, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

## **AVAILABLE**

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

#### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

#### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

#### **PPA**

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a PPA with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

## PPA (Continued)

Any Seller may elect to negotiate a PPA with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on either the filed Standard Avoided Costs or Renewable Avoided Costs in effect at that time.

## STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

## **GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA**

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

#### **OFF-SYSTEM PPA**

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a PPA with the Company after following the applicable Standard or Negotiated PPA guidelines and making the arrangements necessary for transmission of power to the Company's system.

#### **BASIS FOR POWER PURCHASE PRICE**

#### AVOIDED COST SUMMARY

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

#### **ON-PEAK PERIOD**

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

## **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

#### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

## 1) Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

## Portland General Electric Company

Sheet No. 201-5

## **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15.

					T.	ABLE 1a						
					Avo	ided Cos	ts					
			St	andard F	ixed Pric	e Option	for Base	Load QF				
				0	n-Peak F	orecast (	\$/MWH)					
	<u> </u>		·									
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06
2020	61.12	58.27	52.09	43.99	37.53	35.13	54.43	62.06	55.00	52.74	54.48	58.78
2021	83.08	82.73	81.25	79.21	79.28	79.32	79.11	79.15	79.34	79.80	83.82	85.55
2022	86.66	86.03	84.34	82.31	82.46	82.52	82.71	82.73	82.93	83.42	88.08	90.31
2023	91.20	90.41	88.76	86.86	86.34	86.36	86.66	86.48	86.85	87.37	92.37	95.36
2024	96.86	95.81	93.35	91.39	90.70	90.78	91.16	91.09	91.49	92.15	95.30	98.71
2025	99.69	97.48	94.10	92.12	92.10	92.18	92.56	92.48	92.85	93.52	96.54	100.08
2026	100.47	99.38	96.00	93.83	93.32	93.40	93.80	93.72	94.12	94.68	98.25	101.90
2027	101.02	99.29	96.15	93.26	93.22	93.29	93.66	93.56	93.97	94.55	99.45	102.71
2028	101.10	99.49	95.85	93.39	93.31	93.37	93.58	93.64	93.87	94.58	102.56	105.58
2029	107.98	107.22	103.29	100.04	100.08	100.00	100.54	100.64	100.90	101.50	107.20	110.79
2030	112.59	109.12	104.07	99.81	99.56	99.58	100.09	100.18	100.44	101.29	110.03	113.81
2031	115.26	111.15	106,88	103.09	103.23	103.23	104.04	104.14	104.41	105.06	111.68	115.10
2032	117.17	112.98	108.63	104.76	104.90	104.90	105.73	105.83	106.11	106.77	113.52	117.00
2033	119.82	115.54	111.10	107.17	107.31	107.31	108.16	108.26	108.54	109.21	116.10	119.64
2034	122.26	117.90	113.38	109.36	109.51	109.51	110.37	110.48	110.77	111.45	118.47	122.08

					TA	ABLE 1b						
					Avoi	ded Cost	s					
_			Sta	andard F	ixed Price	Option	for Base	Load QF				
				0	ff-Peak F	orecast (	\$/ <b>MW</b> H)	·				
Vaan	- Ia-	Feb	N/a	A	D.f.	lu-sa l	11	A	- C	0-4	Nov	Dec
Year 2014	<b>Jan</b> 38.13	51,38	<b>Mar</b> 42.88	<b>Apr</b> 15.23	<b>May</b> 9.88	<b>Jun</b> 9.38	<b>Jul</b> 21.78	Aug 37.03	<b>Sep</b> 40.53	Oct 39.63	<b>Nov</b> 41,38	47.38
2014			36.99	23.85	16.69	12.34		36.59	34.18	37.49		41.46
	43.19	41.41					24.12				38.44	
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	53.92	51.66	46.15	31.05	22.57	17.61	32.64	46.96	43.50	46.77	48.01	51.78
2021	43.71	43.36	41.88	39.84	39.91	39.95	39.74	39.78	39.97	40.43	44.45	46.18
2022	46.52	45.90	44.20	42.18	42.33	42.38	42.58	42.60	42.80	43.29	47.95	50.18
2023	50.16	49.37	47.72	45.82	45.30	45.32	45.62	45.44	45.81	46.33	51.34	54.32
2024	55.29	54.25	51.79	49.83	49.14	49.22	49.60	49.52	49.92	50.59	53.74	57.15
2025	57.19	54.98	51.60	49.62	49.59	49.67	50.06	49.98	50.35	51.02	54.04	57.58
2026	57.15	56.06	52.68	50.51	50.00	50.08	50.48	50.40	50.80	51.36	54.93	58.58
2027	56.86	55.13	51.99	49.10	49.07	49.13	49.50	49.41	49.81	50.39	55.29	58.55
2028	56.09	54.48	50.84	48.38	48.30	48.36	48.57	48.63	48.86	49.57	57.55	60.57
2029	62.10	61.34	57.41	54.16	54.20	54.12	54.66	54.76	55.02	55.62	61.33	64.92
2030	65.82	62.35	57.31	53.05	52.79	52.82	53.33	53.42	53.68	54.53	63.27	67.05
2031	67.60	63.48	59.21	55.42	55.56	55.56	56.37	56.47	56.75	57.39	64.02	67.43
2032	68.90	64.70	60.35	56.48	56.63	56.63	57.46	57.56	57.84	58.49	65.24	68.73
2033	70.29	66.02	61.58	57.64	57.79	57.79	58.63	58.73	59.02	59.69	66.57	70.12
2034	71.62	67.26	62.74	58.72	58.87	58.87	59.73	59.84	60.13	60.81	67.83	71.44

					TA	ABLE 2a						
					Avoi	ded Cost	ts					
				Standard	I Fixed P	rice Optic	on for Wi	nd QF				
				0	n-Peak F	orecast (	\$/MWH)	~				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	44.43	53.18	44.93	26.68	27.18	27.33	41.83	51.08	46.68	43.18	44.93	50.68
2015	46.36	44.02	38.95	32.30	27.00	25.03	40.87	47.13	41.33	39.48	40.91	44.44
2016	45.93	43.62	38.61	32.04	26.81	24.86	40.50	46.69	40.96	39.13	40.54	44.03
2017	48.52	46.08	40.79	33.85	28.32	26.26	42.79	49.32	43.27	41.34	42.83	46.51
2018	52.38	49.75	44.05	36.58	30.62	28.41	46.21	53.25	46.73	44.65	46.26	50.22
2019	55.26	52.49	46.49	38.62	32.35	30.02	48.76	56.17	49.31	47.12	48.81	52.99
2020	56.97	54.12	47.94	39.84	33.38	30.98	50.28	57.91	50.85	48.59	50.33	54.63
2021	41.45	41.10	39.61	37.58	37.65	37.69	37.48	37.52	37.70	38.17	42.19	43.92
2022	44.22	43.60	41.90	39.88	40.03	40.08	40.28	40.29	40.49	40.99	45.65	47.87
2023	47.82	47.03	45.38	43.48	42.96	42.98	43.28	43.11	43.47	43.99	49.00	51.98
2024	52.90	51.85	49.40	47.44	46.75	46.83	47.21	47.13	47.53	48.19	51.35	54.75
2025	54.76	52.54	49.16	47.18	47.16	47.24	47.62	47.54	47.91	48.59	51.61	55.14
2026	54.66	53.58	50.20	48.02	47.52	47.60	47.99	47.91	48.32	48.87	52.44	56.10
2027	54.33	52.60	49.46	46.57	46.53	46.60	46.97	46.87	47.28	47.86	52.76	56.02
2028	53.51	51.90	48.26	45.80	45.72	45.78	45.99	46.05	46.28	46.99	54.97	57.99
2029	59.48	58.72	54.79	51.54	51.57	51.49	52.03	52.13	52.40	52.99	58.70	62.29
2030	63.14	59.67	54.62	50.37	50.11	50.13	50.64	50.74	51.00	51.85	60.59	64.36
2031	64.86	60.74	56.47	52.68	52.82	52.82	53.64	53.74	54.01	54.65	61.28	64.69
2032	66.10	61.90	57.55	53.69	53.83	53.83	54.66	54.76	55.04	55.69	62.45	65.93
2033	67.46	63,18	58.75	54.81	54.95	54.95	55.80	55.90	56.19	56.85	63.74	67.29
2034	68.73	64.37	59.85	55.83	55.98	55.98	56.84	56.95	57.24	57.92	64.94	68.55

					TA	ABLE 2b			-						
					Avoi	ded Cost	S								
				Standard	Fixed P	rice Optic	on for Wi	nd QF							
	Off-Peak Forecast (\$/MWH)														
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2014	34.43	47.68	39.18	11.53	6.18	5.68	18.08	33.33	36.83	35.93	37.68	43.68			
2015	39.42	37.64	33.22	20.08	12.92	8.57	20.35	32.82	30.41	33.72	34.67	37.69			
2016	39.59	37.81	33.39	20.24	13.08	8.73	20.51	32.99	30.58	33.89	34.84	37.86			
2017	41.65	39.78	35.13	21.30	13.76	9.18	21.58	34.70	32.17	35.65	36.65	39.83			
2018	44.41	42.41	37.46	22.75	14.74	9.87	23.06	37.02	34.32	38.02	39.09	42.47			
2019	47.37	45.25	39.99	24.33	15.80	10.62	24.65	39.51	36.64	40.58	41.72	45.31			
2020	49.77	47.51	42.00	26.90	18.42	13.46	28.49	42.81	39.35	42.62	43.86	47.63			
2021	39.48	39.13	37.65	35.61	35.68	35.72	35.51	35.55	35.74	36.20	40.22	41.95			
2022	42.21	41.59	39.89	37.87	38.02	38.07	38.27	38.29	38.49	38.98	43.64	45.87			
2023	45.77	44.98	43.33	41.43	40.91	40.93	41.23	41.05	41.42	41.94	46.95	49.93			
2024	50.82	49.78	47.32	45.36	44.67	44.75	45.13	45.05	45.45	46.12	49.27	52.68			
2025	52.63	50.42	47.04	45.06	45.03	45.11	45.50	45.42	45.79	46.46	49.48	53.02			
2026	52.50	51.41	48.03	45.86	45.35	45.43	45.83	45.75	46.15	46.71	50.28	53.93			
2027	52.12	50.39	47.25	44.36	44.33	44.39	44.76	44.67	45.07	45.65	50.55	53.81			
2028	51.26	49.65	46.01	43.55	43.47	43.53	43.74	43.80	44.03	44.74	52.72	55.74			
2029	57.18	56.42	52.49	49.24	49.28	49.20	49.74	49.84	50.10	50.70	56.41	60.00			
2030	60.80	57.33	52.29	48.03	47.77	47.80	48.31	48.40	48.66	49.51	58.25	62.03			
2031	62.48	58.36	54.09	50.30	50.44	50.44	51.25	51.35	51.63	52.27	58.90	62.31			
2032	63.69	59.49	55.14	51.27	51.42	51.42	52.25	52.35	52.63	53.28	60.03	63.52			
2033	64.98	60.71	56.27	52.33	52.48	52.48	53.32	53.42	53.71	54.38	61.26	64.81			
2034	66.20	61.84	57.32	53.30	53.45	53.45	54.31	54.42	54.71	55.39	62.41	66.02			

					т,	ABLE 3a						
						ded Cost						
				Standard				lar OF				
					n-Peak F			iai Qi				
		:			II I OUK I	0100001	Ψ					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56,88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06
2020	61.12	58.27	52.09	43.99	37.53	35.13	54.43	62.06	55.00	52.74	54.48	58.78
2021	45.68	45.33	43.84	41.81	41.88	41.92	41.71	41.75	41.93	42.40	46.42	48.15
2022	48.53	47.91	46.21	44.19	44.34	44.39	44.59	44.60	44.80	45.30	49.96	52.18
2023	52.21	51.42	49.77	47.87	47.35	47.37	47.67	47.50	47.86	48.38	53.39	56.37
2024	57.37	56.32	53.87	51.91	51.22	51.30	51.68	51.60	52.00	52.66	55.82	59.22
2025	59.32	57.10	53.72	51.74	51.72	51.80	52.18	52.10	52.47	53.15	56.17	59.70
2026	59.31	58.23	54.85	52.67	52.17	52.25	52.64	52.56	52.97	53.52	57.09	60.75
2027	59.07	57.34	54.20	51.31	51.27	51.34	51.71	51.61	52.02	52.60	57.50	60.76
2028	58.34	56.73	53.09	50.63	50.55	50.61	50.82	50.88	51.11	51.82	59.80	62.82
2029	64.40	63.64	59.71	56.46	56.49	56.41	56.95	57.05	57.32	57.91	63.62	67.21
2030	68.16	64.69	59.64	55.39	55.13	55.15	55.66	55.76	56.02	56.87	65.61	69.38
2031	69.98	65.86	61.59	57.80	57.94	57.94	58.76	58.86	59.13	59.77	66.40	69.81
2032	71.31	67.11	62.76	58.90	59.04	59.04	59.87	59.97	60.25	60.90	67.66	71.14
2033	72.77	68.49	64.06	60.12	60.26	60.26	61,11	61.21	61.50	62.16	69.05	72.60
2034	74.15	69.79	65.27	61.25	61.40	61.40	62.26	62.37	62.66	63.34	70.36	73.97

					TA	ABLE 3b						
					Avoi	ded Cost	s					
				Standard	Fixed P	rice Optic	on for So	lar QF				
				0	ff-Peak F	orecast (	\$/ <b>MW</b> H)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	53.92	51.66	46.15	31.05	22.57	17.61	32.64	46.96	43.50	46.77	48.01	51.78
2021	43.71	43.36	41.88	39.84	39.91	39.95	39.74	39.78	39.97	40.43	44.45	46.18
2022	46.52	45.90	44.20	42.18	42.33	42.38	42.58	42.60	42.80	43.29	47.95	50.18
2023	50.16	49.37	47.72	45.82	45.30	45.32	45.62	45.44	45.81	46.33	51.34	54.32
2024	55.29	54.25	51.79	49.83	49.14	49.22	49.60	49.52	49.92	50.59	53.74	57.15
2025	57.19	54.98	51.60	49.62	49.59	49.67	50.06	49.98	50.35	51.02	54.04	57.58
2026	57.15	56.06	52.68	50.51	50.00	50.08	50.48	50.40	50.80	51.36	54.93	58.58
2027	56.86	55.13	51.99	49.10	49.07	49.13	49.50	49.41	49.81	50.39	55.29	58.55
2028	56.09	54.48	50.84	48.38	48.30	48.36	48.57	48.63	48.86	49.57	57.55	60.57
2029	62.10	61.34	57.41	54.16	54.20	54.12	54.66	54.76	55.02	55.62	61.33	64.92
2030	65.82	62.35	57.31	53.05	52.79	52.82	53.33	53.42	53.68	54.53	63.27	67.05
2031	67.60	63.48	59.21	55.42	55.56	55.56	56.37	56.47	56.75	57.39	64.02	67.43
2032	68.90	64.70	60.35	56.48	56.63	56.63	57.46	57.56	57.84	58.49	65.24	68.73
2033	70.29	66.02	61.58	57.64	57.79	57.79	58.63	58.73	59.02	59.69	66.57	70.12
2034	71.62	67.26	62.74	58.72	58.87	58.87	59.73	59.84	60.13	60.81	67.83	71.44

PRICING OPTIONS FOR STANDARD PPA (Continued)

### 2) Renewable Fixed Price Option

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company during the Renewable Resource Deficiency Period.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15.

					т	ABLE 4a						
					Renewabl		d Coete					
			Pai		Fixed Pri			a Load O	=			
			INCI		n-Peak F	<u> </u>		LUau Q	<u> </u>			
					II-I Can I	Orecast (	ALIANA LIA					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06
2020	130.42	130.40	129.50	130.04	133.82	132.76	132.39	132.24	130.72	129.58	130.57	129.37
2021	133.36	133.64	131.86	133.13	136.49	135.59	134.91	135.51	133.73	132.54	134.08	132.51
2022	136.24	136.10	133.85	135.90	139.41	138.20	137.67	137.62	136.32	135.14	136.83	135.12
2023	139.39	138.88	136.54	138.99	141.88	141.01	140.60	140.17	139.18	137.81	139.83	138.52
2024	141.20	141.38	139.07	141.45	144.67	143.46	143.33	143.02	142.81	139.99	141.17	141.32
2025	144.44	144.83	142.24	145.02	149.08	147.69	146.57	146.72	145.76	143.11	144.48	144.07
2026	148.08	147.69	145.96	148.54	153.80	149.69	149.69	150.17	149.84	146.23	148.39	147.27
2027	150.98	150.46	148.51	151.01	158.07	152.64	152.20	153.90	152.54	149.20	150.73	150.17
2028	153.78	152.55	150.16	154.12	160.66	154.93	155.77	155.78	154.75	152.38	153.65	152.73
2029	157.02	156.74	153.60	157.59	169.40	159.30	159.39	159.39	159.45	155.48	156.44	156.31
2030	160.28	159.94	157.24	160.66	173.84	164.43	161.89	161.75	163.38	158.51	159.18	159.23
2031	163.23	162.64	160.72	164.67	177.15	169.11	164.90	166.01	166.26	161.75	163.06	162.54
2032	165.75	165.16	163.21	167.22	179.91	171.73	167.46	168.59	168.84	164.26	165.59	165.06
2033	169.59	168.98	166.98	171.09	184.06	175.70	171.33	172.48	172.74	168.06	169.41	168.88
2034	173.01	172.39	170.36	174.55	187.76	179.24	174.79	175.97	176.23	171.46	172.84	172.29

					TA	ABLE 4b						
				R	enewable	e Avoided	Costs					
			Rer	newable F	ixed Pric	e Option	for Base	Load Q	=			
				0	ff-Peak F	orecast (	\$/ <b>MW</b> H)					
Year	Jan	Feb	Mar	Apr	May	Jun -	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	74.05	74.35	76.18	74.70	70.70	70.98	71.32	72.70	73.76	75.21	74.98	75.50
2021	76.61	75.69	77.70	76.08	72.65	72.71	73.48	73.88	75.25	77.66	74.78	76.80
2022	77.70	77.31	79.96	77.27	73.68	74.12	75.90	74.74	76.69	79.10	76.00	78.21
2023	78.70	78.76	81.53	79.38	74.14	75.53	77.17	76.51	78.04	80.71	77.14	79.80
2024	79.35	79.42	83.14	79.16	74.55	77.78	76.40	76.83	78.61	81.03	79.55	80.29
2025	80.96	80.94	84.88	80.33	74.54	78.20	78.02	79.19	79.32	82.81	82.21	81.48
2026	81.35	82.42	85.28	80.89	75.34	79.31	79.11	79.94	79.12	83.91	82.41	82.47
2027	84.14	84.11	86.28	82.99	75.15	80.77	81.16	80.43	80.90	86.39	83.38	83.99
2028	85.29	86.01	88.97	85.07	74.43	82.57	82.76	81.19	82.83	87.06	84.33	86.62
2029	85.87	86.84	90.61	86.72	68.73	82.93	84.21	82.59	84.39	88.00	86.85	88.12
2030	87.21	88.28	92.46	86.89	68.43	83.64	84.98	85.17	84.95	89.66	88.91	89.94
2031	89.10	90.50	93.69	87.32	69.81	83.38	86.78	86.97	85.14	91.14	90.93	90.04
2032	90.57	92.00	95.23	88.76	70.97	84.75	88.21	88.41	86.54	92.64	92.44	91.53
2033	92.57	94.03	97.34	90.72	72.53	86.63	90.16	90.36	88.46	94.69	94.48	93.55
2034	94.36	95.84	99.22	92.47	73.93	88.30	91.90	92.10	90.16	96.52	96.30	95.36

					T.	ABLE 5a						
				F	Renewabl	e Avoide	d Costs					
			F	Renewab	le Fixed I	Price Opt	ion for W	ind QF				
				0	n-Peak F	orecast (	\$/MWH)					
									-			
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	44.43	53.18	44.93	26.68	27.18	27.33	41.83	51.08	46.68	43.18	44.93	50.68
2015	46.36	44.02	38.95	32.30	27.00	25.03	40.87	47.13	41.33	39.48	40.91	44.44
2016	45.93	43.62	38.61	32.04	26,81	24.86	40.50	46.69	40.96	39.13	40.54	44.03
2017	48.52	46.08	40.79	33.85	28.32	26.26	42.79	49.32	43.27	41.34	42.83	46.51
2018	52.38	49.75	44.05	36.58	30.62	28.41	46.21	53.25	46.73	44.65	46.26	50.22
2019	55.26	52.49	46.49	38.62	32.35	30.02	48.76	56.17	49.31	47.12	48.81	52.99
2020	89.69	89,67	88.77	89.31	93.09	92.03	91.66	91.52	90.00	88.85	89.84	88.64
2021	91.73	92.00	90.23	91.50	94.85	93.96	93.28	93.88	92.10	90.91	92.44	90.88
2022	93.81	93.66	91.42	93.47	96.98	95.77	95.23	95.19	93.89	92.71	94.39	92.68
2023	96.01	95.50	93.17	95.61	98.50	97.64	97.23	96.79	95.80	94.43	96.45	95.15
2024	97.25	97.43	95.12	97.50	100.71	99.51	99.38	99.07	98.85	96.03	97.21	97.37
2025	99.51	99.89	97.31	100.08	104.15	102.76	101.63	101.79	100.82	98.17	99.55	99.13
2026	102.27	101.88	100.16	102.74	108.00	103.89	103.89	104.37	104.03	100.42	102.58	101.47
2027	104.29	103.77	101.82	104.32	111.38	105.95	105.51	107.22	105.85	102.51	104.04	103.48
2028	106.19	104.96	102.57	106.53	113.07	107.34	108.18	108.19	107.16	104.79	106.06	105.14
2029	108.51	108.23	105.09	109.08	120.90	110.80	110.89	110.89	110.94	106.98	107.94	107.81
2030	110.84	110.49	107.80	111.21	124.40	114.99	112.45	112.31	113.94	109.07	109.73	109.79
2031	112.82	112.24	110.32	114.27	126.75	118.70	114.50	115.61	115.86	111.35	112.66	112.14
2032	114.68	114.08	112.13	116.15	128.84	120.66	116.38	117.51	117.77	113,18	114.51	113.99
2033	117.23	116.62	114.62	118.73	131.70	123.34	118.97	120.13	120.39	115.70	117.06	116.52
2034	119.48	118.86	116.83	121.02	134.24	125.71	121.26	122.44	122.70	117.93	119.31	118.76

					TA	ABLE 5b						
				R	enewable	e Avoided	d Costs					
			F	Renewab	e Fixed F	rice Opt	ion for W	ind QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	34.43	47.68	39.18	11.53	6.18	5.68	18.08	33.33	36.83	35.93	37.68	43.68
2015	39.42	37.64	33.22	20.08	12.92	8.57	20.35	32.82	30.41	33.72	34.67	37.69
2016	39.59	37.81	33.39	20.24	13.08	8.73	20.51	32.99	30.58	33.89	34.84	37.86
2017	41.65	39.78	35.13	21.30	13.76	9.18	21.58	34.70	32.17	35.65	36.65	39.83
2018	44.41	42.41	37.46	22.75	14.74	9.87	23.06	37.02	34.32	38.02	39.09	42.47
2019	47.37	45.25	39.99	24.33	15.80	10.62	24.65	39.51	36.64	40.58	41.72	45.31
2020	69.90	70.20	72.03	70.55	66.55	66.83	67.17	68.55	69.61	71.06	70.83	71.35
2021	72.38	71.46	73.47	71.85	68.42	68.48	69.25	69.65	71.02	73.43	70.55	72.57
2022	73.39	73.00	75.65	72.96	69.37	69.81	71.59	70.43	72.38	74.79	71.69	73.90
2023	74.31	74.37	77.14	74.99	69.75	71.14	72.78	72.12	73.65	76.32	72.75	75.41
2024	74.88	74.95	78.67	74.69	70.08	73.31	71.93	72.36	74.14	76.56	75.08	75.82
2025	76.40	76.38	80.32	75.77	69.98	73.64	73.46	74.63	74.76	78.25	77.65	76.92
2026	76.70	77.77	80.63	76.24	70.69	74.66	74.46	75.29	74.47	79.26	77.76	77.82
2027	79.40	79.37	81.54	78.25	70.41	76.03	76.42	75.69	76.16	81.65	78.64	79.25
2028	80.46	81.18	84.14	80.24	69.60	77.74	77.93	76.36	78.00	82.23	79.50	81.79
2029	80.95	81.92	85.69	81.80	63.81	78.01	79.29	77.67	79.47	83.08	81.93	83.20
2030	82.19	83.26	87.44	81.87	63.41	78.62	79.96	80.15	79.93	84.64	83.89	84.92
2031	83.98	85.38	88.57	82.20	64.69	78.26	81.66	81.85	80.02	86.02	85.81	84.92
2032	85.36	86.79	90.02	83.55	65.76	79.54	83.00	83.20	81.33	87.43	87.23	86.32
2033	87.26	88.72	92.03	85.41	67.22	81.32	84.85	85.05	83.15	89.38	89.17	88.24
2034	88.94	90.42	93.80	87.05	68.51	82.88	86.48	86.68	84.74	91.10	90.88	89.94

					Т.	ABLE 6a						
				F	Renewabl	e Avoide	d Costs					-
				Renewab	le Fixed F	Price Opt	ion for S	olar QF				
				0	n-Peak F	orecast (	\$/ <b>IVIV</b> /H)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06
2020	97.99	97.97	97.07	97.61	101.39	100.33	99.96	99.82	98.30	97.15	98.14	96.94
2021	100.19	100.46	98.69	99.96	103.31	102.42	101.74	102.34	100.56	99.37	100.90	99.34
2022	102.43	102.28	100.04	102.09	105.60	104.39	103.85	103.81	102.51	101.33	103.01	101.30
2023	104.79	104.28	101.95	104.39	107.28	106.42	106.01	105.57	104.58	103.21	105.23	103.93
2024	106.19	106.37	104.06	106.44	109.65	108.45	108.32	108.01	107.79	104.97	106.15	106.31
2025	108.63	109.01	106.43	109.20	113.27	111.88	110.75	110.91	109.94	107.29	108.67	108.25
2026	111.57	111.18	109.46	112.04	117.30	113.19	113.19	113.67	113.33	109.72	111.88	110.77
2027	113.77	113.25	111.30	113.80	120.86	115.43	114.99	116.70	115.33	111.99	113.52	112.96
2028	115.85	114.62	112.23	116.19	122.73	117.00	117.84	117.85	116.82	114.45	115.72	114.80
2029	118.35	118.07	114.93	118.92	130.74	120.64	120.73	120.73	120.78	116.82	117.78	117.65
2030	120.88	120.53	117.84	121.25	134.44	125.03	122.49	122.35	123.98	119.11	119.77	119.83
2031	123.06	122.48	120.56	124.51	136.99	128.94	124.74	125.85	126.10	121.59	122.90	122.38
2032	125.10	124.50	122.55	126.57	139.26	131.08	126.80	127.93	128.19	123.60	124.93	124.41
2033	127.85	127.24	125.24	129.35	142.32	133.96	129.59	130.75	131.01	126.32	127.68	127.14
2034	130.32	129.70	127.67	131.86	145.08	136.55	132.10	133.28	133.54	128.77	130.15	129.60

				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	TA	ABLE 6b						
***************************************	. , , ,			F	enewabl	e Avoide	Costs					
			F	Renewabl	e Fixed F	Price Opt	ion for So	lar QF				
				0	ff-Peak F	orecast (	\$/ <b>MW</b> H)					
			-									
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	78.20	78.50	80.33	78.85	74.85	75.13	75.47	76.85	77.91	79.36	79.13	79.65
2021	80.84	79.92	81.93	80.31	76.88	76.94	77.71	78.11	79.48	81.89	79.01	81.03
2022	82.01	81.62	84.27	81.58	77.99	78.43	80.21	79.05	81.00	83.41	80.31	82.52
2023	83.09	83.15	85.92	83.77	78.53	79.92	81.56	80.90	82.43	85.10	81.53	84.19
2024	83.82	83.89	87.61	83.63	79.02	82.25	80.87	81.30	83.08	85.50	84.02	84.76
2025	85.52	85.50	89.44	84.89	79.10	82.76	82.58	83.75	83.88	87.37	86.77	86.04
2026	86.00	87.07	89.93	85.54	79.99	83.96	83.76	84.59	83.77	88.56	87.06	87.12
2027	88.88	88.85	91.02	87.73	79.89	85.51	85.90	85.17	85.64	91.13	88.12	88.73
2028	90.12	90.84	93.80	89.90	79.26	87.40	87.59	86.02	87.66	91.89	89.16	91.45
2029	90.79	91.76	95.53	91.64	73.65	87.85	89.13	87.51	89.31	92.92	91.77	93.04
2030	92.23	93.30	97.48	91.91	73.45	88.66	90.00	90.19	89.97	94.68	93.93	94.96
2031	94.22	95.62	98.81	92.44	74.93	88.50	91.90	92.09	90.26	96.26	96.05	95.16
2032	95.78	97.21	100.44	93.97	76.18	89.96	93.42	93.62	91.75	97.85	97.65	96.74
2033	97.88	99.34	102.65	96.03	77.84	91.94	95.47	95.67	93.77	100.00	99.79	98.86
2034	99.78	101.26	104.64	97.89	79.35	93.72	97.32	97.52	95.58	101.94	101.72	100.78

## WIND INTEGRATION

TABLE 7			
Wind Integration			
Year	Cost		
2014	3.70		
2015	3.77		
2016	3.84		
2017	3.91		
2018	3.99		
2019	4.07		
2020	4.15		
2021	4.23		
2022	4.31		
2023	4.39		
2024	4.47		
2025	4.56		
2026	4.65		
2027	4.74		
2028	4.83		
2029	4.92		
2030	5.02		
2031	5.12		
2032	5.21		
2033	5.31		
2034	5.42		

#### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

#### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard PPA:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment, that economic conditions or claims experience may warrant.
- 2) Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

#### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

#### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

## INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

## DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10 MW.

## **Definition of Person(s) or Affiliated Person(s)**

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

## **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

## SCHEDULE 201 (Concluded)

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

#### Definition of Shared Interconnection and Infrastructure

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

#### OTHER DEFINITIONS

#### Mid-C Index Price

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average On-Peak Power and Average Off-Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

### **Definition of RPS Attributes**

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

#### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

## SCHEDULE 201 (Concluded)

## OTHER DEFINITIONS (Continued)

## **Definition of Resource Sufficiency Period**

This is the period from the current year through 2020.

## **Definition of Resource Deficiency Period**

This is the period from 2021 through 2034.

## **Definition of Renewable Resource Sufficiency Period**

This is the period from the current year through 2019.

## **Definition of Renewable Resource Deficiency Period**

This is the period from 2020 through 2034.

### **DISPUTE RESOLUTION**

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA. Disputes may be presented to the Commission for resolution.

## **SPECIAL CONDITIONS**

- 1. Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- 3. Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

## **TERM OF AGREEMENT**

Not less than one year and not to exceed 20 years.

### STANDARD OFF-SYSTEM VARIABLE POWER PURCHASE AGREEMENT

THIS AGREEMENT, entered	d into this	day,	
20 , is between		-	("Seller")
and Portland General Electric C collectively, "Parties").	Company ("PGE")	(hereinafter each	a "Party" or
	<b>RECITALS</b>		
Seller intends to construct, or facility for the generation of electric County, kilowatt ("kW"), as further described	power located in with a Namer	olate Capacity Rati	ng of
Seller intends to operate the defined in Section 3.1.3, below.	e Facility as a "Qu	alifying Facility," a	s such term is
Seller shall sell and PGE shall defined in Section 1.21, below, frounditions of this Agreement.	· · · · · · · · ·	•	

## **AGREEMENT**

NOW, THEREFORE, the Parties mutually agree as follows:

## **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year).
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.
- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:
- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms

and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);

- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.35;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final contract year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.
- 1.9 "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

- 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with \_\_\_\_\_\_electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period, provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date (For Start-Up Lost Energy Value See 1.34)
- 1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:
  - MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)
- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.

- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses. Net Output does not include any environmental attributes.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, 200 hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with 5 separate two MW turbines would be 43,800 for a Contract Year.
- 1.26. "Planned Maintenance" means outages scheduled 90 days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.
- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.

- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.33. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.
- 1.34. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours and Off-Peak Hours in each day.
- 1.35. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.36. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.

- 1.37. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.38. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.39. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.40. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).
- 1.41. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.42. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.43. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

## SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
- 2.2.1. By \_\_\_\_\_ [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
- 2.2.2. By \_\_\_\_\_ [date to be determined by the Seller] Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
- 2.2.3. In the event Seller is unable to meet the requirements of Sections 2.2.1 and 2.2.2, and if PGE is resource deficient (as defined by the Commission) PGE may terminate this Agreement in accordance with Section 8. Otherwise, PGE may not terminate this Agreement, but Seller shall pay PGE the Start-Up Lost Energy Value.
- 2.3. This Agreement shall terminate on \_\_\_\_\_\_, \_\_\_\_ [date to be chosen by Seller], or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").

# SECTION 3: REPRESENTATIONS AND WARRANTIES

3.1. Seller and PGE represent, covenant, and warrant as follows:
3.1.1. Seller warrants it is a duly organized under the laws of
3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
3.1.4. Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
3.1.6. Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
3.1.8. Seller warrants that Net Dependable Capacity of the Facility is kW.
3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):

extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or

3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and

- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4 Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that (i) the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard PPA in PGE's Schedule and (ii) Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Public Utility Commission of Oregon upon the Commission's request.

#### SECTION 4: DELIVERY OF POWER AND PRICE

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through

any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.

- 4.4. Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The Parties' respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5. Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Environmental Attributes produced with respect to the Facility, and PGE shall not report under such program that such Environmental Attributes belong to it.

# SECTION 5: OPERATION AND CONTROL

- 5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.

5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

#### **SECTION 6: CREDITWORTHINESS**

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

### SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

#### SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for any single Contract Year or Seller's failure to provide any written report required by that section.

- 8.1.4. If Seller is no longer a Qualifying Facility.
- 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
- 8.2. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights. Provided, however, PGE may not terminate this Agreement for Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10.
- 8.3. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.4. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.5. Sections 8.1, 8.3, 8.4, 10, and 19.2 shall survive termination of this Agreement.

#### SECTION 9: TRANSMISSION CURTAILMENTS

- 9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.
- 9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

#### SECTION 10: INDEMNIFICATION AND LIABILITY

10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE

or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.

- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

#### **SECTION 11: INSURANCE**

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

# **SECTION 12: FORCE MAJEURE**

- 12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.
- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:

- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

# **SECTION 13: SEVERAL OBLIGATIONS**

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

#### SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

#### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

#### **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

#### SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

#### SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

### **SECTION 19: ENTIRE AGREEMENT**

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

#### **SECTION 20: NOTICES**

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:		
with a copy to:		

To PGE:

Contracts Manager

QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204

20.2. The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 20.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in their respective names as of the Effective Date.

PGE	
Ву:	
Name:	
Title:	
Date:	
(Name Seller)	
Ву:	
Name:	
Title:	
Date:	

# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

### [Seller to Complete]

[Sellers may include reasonable expected monthly Net Output for purposes of Section 1.34 (Start-Up Lost Energy Value). Amounts may vary by month and shall be assumed repeated for each Contract Year, unless amounts for each Contract Year of this Agreement are set forth in this Exhibit A. Such amounts, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of this Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.]

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

# [Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

#### EXHIBIT C START-UP TESTING

#### [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- 1. Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments:
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests:
- 4. Energization of transformers;
- 5. Synchronizing tests (manual and auto);
- 6. Stator windings dielectric test;
- 7. Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs;
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

# EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

#### STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE

#### **AGREEMENT**

THIS AGREEMENT, entered in	to this	day	
20 1 1 1			/II O II III
20, is between and Portland General Electric Con collectively, "Parties").	npany ("PGE")	(hereinafter eac	h a "Party <sup>"</sup> or
	RECITALS		
Seller intends to construct, own facility for the generation of electric po County, with a Nan ("kW"), as further described in Exhibit	wer located in _ neplate Capacit	y Rating of	kilowatt
Seller intends to operate the F defined in Section 3.1.3, below.	acility as a "Qu	ualifying Facility,"	as such term is
Seller shall sell and PGE shall defined in Section 1.21, below, from conditions of this Agreement.	•		
<u>A</u>	GREEMENT		

NOW, THEREFORE, the Parties mutually agree as follows:

#### **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.

- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:
- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.

- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.
  - 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with \_\_\_\_\_\_\_electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period, provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date (For Start-Up Lost Energy Value See 1.35)

1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:

MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)

- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.
- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.

- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.
- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours and Off-Peak Hours in each day.
- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).
- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.

- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

#### SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
- 2.2.1. By \_\_\_\_\_ [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
- 2.2.2. By \_\_\_\_\_ [date to be determined by the Seller] Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
- 2.2.3. In the event Seller is unable to meet the requirements of Sections 2.2.1 and 2.2.2, and if PGE is resource deficient (as defined by the Commission) PGE may terminate this Agreement in accordance with Section 8. Otherwise, PGE may not terminate this Agreement but Seller shall pay PGE the Start-Up Lost Energy Value.
- 2.3. This Agreement shall terminate on \_\_\_\_\_\_, \_\_\_\_ [date to be chosen by Seller], or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").

#### SECTION 3: REPRESENTATIONS AND WARRANTIES

- 3.1. Seller and PGE represent, covenant, and warrant as follows:3.1.1. Seller warrants it is a \_\_\_\_\_ duly organized under the laws of
- 3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.

- 3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
- 3.1.4. Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
- 3.1.6. Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8. Seller warrants that Net Dependable Capacity of the Facility is kW.
- 3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is \_\_\_\_\_ kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):
- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.

- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.
- 3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005 through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

#### SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.

- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5. During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as

belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

#### SECTION 5: OPERATION AND CONTROL

- 5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

#### SECTION 6 CREDITWORTHINESS

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

#### SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

### SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for any single Contract Year or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
- 8.2. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights. Provided, however, PGE may not terminate this Agreement for Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10.
- 8.3. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall

not be required to pay Seller for any Net Output delivered by Seller after such notice of default.

- 8.4. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.5. Sections 8.1, 8.3, 8.4, 10, and 19.2 shall survive termination of this Agreement.

#### **SECTION 9: TRANSMISSION CURTAILMENTS**

- 9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.
- 9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

#### SECTION 10: INDEMNIFICATION AND LIABILITY

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or

destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.

- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

### **SECTION 11: INSURANCE**

- 11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.
- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.

11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

#### **SECTION 12: FORCE MAJEURE**

- 12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.
- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.

12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

#### SECTION 13: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

# SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

#### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

### **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

#### SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

#### SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

#### **SECTION 19: ENTIRE AGREEMENT**

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

#### SECTION 20: NOTICES

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:		
with a copy to:		
To PGE:	Contracts Manager QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204	

20.2 The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 20.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in their respective names as of the Effective Date.

PGE	
Ву:	_
Name:	
Title:	
Date:	
(Name Seller)	
Ву:	
Name:	
Title:	_
Date:	

# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

# [Seller to Complete]

[Sellers may include reasonable expected monthly Net Output for purposes of Section 1.35 (Start-Up Lost Energy Value). Amounts may vary by month and shall be assumed repeated for each Contract Year, unless amounts for each Contract Year of this Agreement are set forth in this Exhibit A. Such amounts, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of this Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.]

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

[Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

#### EXHIBIT C START-UP TESTING

### [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- 1. Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments:
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests:
- 4. Energization of transformers;
- 5. Synchronizing tests (manual and auto);
- 6. Stator windings dielectric test;
- 7. Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs;
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

Schedule 201 Standard Renewable Off-System Variable Power Purchase Agreement Effective December 17, 2014

## EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

Supplemental Filing
Application to Update Schedule 201
Qualifying Facility Information
Red Lined Version of the
Standard Power Purchase Agreements

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

#### **PURPOSE**

To provide information about <u>Standard</u> Avoided Costs, and <u>Renewable Avoided Costs</u>, <u>Standard</u> Power Purchase Agreements (<u>PPA</u>) and <u>Negotiated PPAs</u>, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

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### AVAILABLE

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

#### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

### **POWER PURCHASE INFORMATION**

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

### PPA

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a <u>PPA</u> with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

Effective for service on and after December 17, 2014



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Portland General Electric Company Sheet No. 201-2¶

SCHEDULE 201 (Continued)¶

POWER PURCHASE AGREEMENT¶

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Sheet No. 201-2

### **SCHEDULE 201 (Continued)**

### PPA (Continued)

Any Seller may elect to negotiate a <u>PPA</u> with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on <u>either</u> the filed <u>Standard Avoided Costs or Renewable</u> Avoided Costs in effect at that time

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### STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

### GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

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### Sheet No. 201-3

### **SCHEDULE 201 (Continued)**

### OFF-SYSTEM PPA

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a <a href="PPA">PPA</a> with the Company after following the applicable <a href="Standard">Standard</a> or <a href="Negotiated PPA">Negotiated PPA</a> guidelines and making the arrangements necessary for transmission of power to the Company's system.

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### BASIS FOR POWER PURCHASE PRICE

### **AVOIDED COST SUMMARY**

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

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Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

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### **ON-PEAK PERIOD**

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

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Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

on and after December 17, 2014

### Sheet No. 201-4

### **SCHEDULE 201 (Continued)**

### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b. 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

### 1) Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

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Portland General Electric Company Sheet

No. 201-4¶

SCHEDULE 201 (Continued)¶

PRICING OPTIONS FOR STANDARD

CONTRACTS (Continued)¶

Four pricing options are available for Standard Contracts.

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<#>Fixed Price Option¶

The Fixed Price Option is based on Avoided Costs including forecasted natural gas prices.

This option is available for a maximum term of 15 years. Sellers with contracts exceeding 15 years will make a one time election at execution to select a Market-Based Option for all years up to five in excess of the initial 15. Under the Fixed Price Option, prices will be as established at the time the Standard Contract is executed and will be equal to the Avoided Costs in Tables 1 and 2 effective at execution for a term of up to 15 years.

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Sheet No. 201-5

## SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)

Standard Fixed Price Option (Continued)

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15.

Effective for service on and after <u>December 17</u>, 2014

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## PRICING OPTIONS FOR STANDARD PPA (Continued) Standard Fixed Price Option (Continued)

					т.	ABLE 1a						
						ided Cos						
			St			e Option		Load QF				
				0	n-Peak F	orecast	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46,88	48.63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43,25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42
2018	56.37	53.74	48.04	40,57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06
2020	61.12	58.27	52.09	43.99	37.53	35.13	54.43	62.06	55.00	52.74	54.48	58,78
2021	83.08	82.73	81.25	79.21	79.28	79.32	79.11	79.15	79.34	79.80	83.82	85.55
2022	86,66	86.03	84,34	82.31	82,46	82.52	82.71	82.73	82.93	83.42	88.08	90.31
2023	91.20	90.41	88.76	86.86	86.34	86.36	86,66	86,48	86.85	87,37	92.37	95.36
2024	96.86	95.81	93,35	91.39	90.70	90.78	91.16	91.09	91.49	92.15	95.30	98.71
2025	99.69	97.48	94.10	92.12	92.10	92.18	92.56	92.48	92.85	93.52	96.54	100.08
2026	100,47	99.38	96.00	93,83	93,32	93.40	93.80	93.72	94.12	94.68	98.25	101.90
2027	101.02	99.29	96.15	93.26	93.22	93.29	93.66	93.56	93.97	94.55	99.45	102.71
2028	101.10	99.49	95.85	93.39	93.31	93.37	93,58	93.64	93,87	94.58	102.56	105.58
2029	107.98	107.22	103.29	100.04	100.08	100.00	100.54	100.64	100.90	101.50	107.20	110.79
2030	112.59	109.12	104.07	99.81	99.56	99.58	100.09	100.18	100.44	101.29	110.03	113,81
2031	115.26	111,15	106.88	103,09	103.23	103.23	104.04	104.14	104.41	105.06	111.68	115.10
2032	117.17	112.98	108,63	104,76	104.90	104.90	105.73	105.83	106.11	106.7 <b>7</b>	113.52	117.00
2033	119.82	115.54	111.10	107,17	107.31	107.31	108.16	108.26	108,54	109.21	116.10	119.64
2034	122.26	117.90	113.38	109.36	109,51	109.51	110.37	110.48	110,77	111.45	118.47	122.08

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Market Based Price Options include Option 2,
Deadband Index Gas Price; Option 3, Index Gas
Price; and Option 4, The Intercontinental
Exchange Mid-Columbia Daily on- and off-peak
Electricity Firm Price Index (ICE-MId-C-Firm
Index). The price components for pricing
Options 2 and 3 are defined as follows:
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On Peak Price:

PRICING OPTIONS FOR STANDARD, PPA (Continued)

Standard Fixed Price Option (Continued)

						ABLE 1b						
					Avoi	ided Cost	s					
			Sta					Load QF				
-		-		0	ff-Peak F	orecast (	\$/MWH)					_
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38,68	41.70
2017	45.56	43,69	39.04	25,21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	53.92	51.66	46.15	31.05	22.57	17.61	32.64	46.96	43,50	46.77	48.01	51.78
2021	43.71	43.36	41.88	39.84	39.91	39.95	39.74	39.78	39.97	40.43	44.45	46.18
2022	46.52	45,90	44.20	42.18	42.33	42.38	42.58	42.60	42.80	43.29	47.95	50.18
2023	50.16	49.37	47.72	45.82	45.30	45.32	45.62	45.44	45.81	46.33	51.34	54.32
2024	55.29	54.25	51.79	49.83	49.14	49.22	49.60	49.52	49.92	50.59	53.74	57.15
2025	57.19	54.98	51.60	49.62	49.59	49.67	50.06	49.98	50.35	51.02	54.04	57.58
2026	57.15	56.06	52.68	50.51	50.00	50.08	50.48	50.40	50.80	51.36	54.93	58.58
2027	56.86	55.13	51.99	49.10	49.07	49.13	49.50	49.41	49.81	50.39	55.29	58.55
2028	56.09	54.48	50.84	48.38	48.30	48.36	48.57	48.63	48.86	49.57	57.55	60.57
2029	62.10	61.34	57.41	54.16	54.20	54.12	54.66	54.76	55.02	55.62	61.33	64.92
2030	65.82	62.35	57.31	53.05	52.79	52.82	53.33	53.42	53.68	54.53	63.27	67.05
2031	67.60	63.48	59.21	55.42	55.56	55.56	56.37	56.47	56.75	57.39	64.02	67.43
2032	68.90	64.70	60.35	56.48	56,63	56.63	57.46	57.56	57.84	58.49	65.24	68.73
2033	70.29	66.02	61.58	57.64	57.79	57.79	58.63	58.73	59.02	59.69	66.57	70.12
2034	71.62	67.26	62.74	58.72	58.87	58.87	59.73	59.84	60.13	60.81	67.83	71.44

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Year	Jan	Feb	Mar	Api
2013				
2014	39.69	37.26	33.40	34.
2015	42.51	39.92	35.78	36.
2016	45.84	43.04	38.57	39.
2017	49.18	46.16	41.36	42.
2018	51.97	48.79	43.72	44.
2019	52.98	49.74	44.58	45.
2020	54.01	50.71	45.46	46.

Ap	Mar	Feb	Jan	Year
				2013
18.	30.53	32.34	33.48	2014
20.	33.05	35.02	36.25	2015
21.	35.34	37.44	38.77	2016
23.	37.91	40.17	41.60	2017
24.	40.49	42.90	44.42	2018
25.	41.29	43.74	45.29	2019
25.	42.11	44.61	46.18	2020

PRICING OPTIONS FOR STANDARD, PPA (Continued)

Standard Fixed Price Option (Continued)

						ABLE 2a						
						ided Cost						
							on for Wi	nd QF				
	-			0	n-Peak F	orecast (	\$/MWH)	_			_	
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	44.43	53.18	44.93	26.68	27.18	27.33	41.83	51.08	46.68	43.18	44.93	50.68
2015	46.36	44.02	38.95	32.30	27.00	25.03	40.87	47.13	41.33	39.48	40,91	44.44
2016	45.93	43.62	38.61	32.04	26.81	24.86	40.50	46.69	40.96	39.13	40.54	44.03
2017	48.52	46.08	40.79	33.85	28.32	26.26	42.79	49.32	43.27	41.34	42.83	46.51
2018	52.38	49.75	44.05	36.58	30.62	28.41	46.21	53.25	46.73	44.65	46.26	50.22
2019	55.26	52,49	46.49	38,62	32.35	30.02	48.76	56.17	49.31	47.12	48.81	52.99
2020	56.97	54.12	47.94	39.84	33,38	30.98	50.28	57.91	50.85	48.59	50.33	54.63
2021	41.45	41.10	39.61	37.58	37.65	37.69	37.48	37.52	37.70	38.17	42.19	43.92
2022	44.22	43.60	41.90	39.88	40.03	40.08	40.28	40.29	40.49	40,99	45.65	47.87
2023	47.82	47.03	45.38	43.48	42.96	42.98	43.28	43.11	43.47	43.99	49.00	51.98
2024	52.90	51.85	49.40	47.44	46.75	46.83	47.21	47.13	47.53	48.19	51.35	54.75
2025	54.76	52.54	49.16	47.18	47.16	47.24	47.62	47.54	47.91	48.59	51.61	55.14
2026	54.66	53.58	50.20	48.02	47.52	47.60	47.99	47.91	48.32	48.87	52.44	56.10
2027	54.33	52.60	49.46	46.57	46.53	46.60	46.97	46.87	47.28	47.86	52.76	56.02
2028	53.51	51.90	48.26	45.80	45.72	45.78	45.99	46.05	46.28	46.99	54.97	57.99
2029	59.48	58.72	54.79	51.54	51.57	51.49	52.03	52.13	52.40	52.99	58.70	62.29
2030	63.14	59.67	54.62	50.37	50.11	50.13	50.64	50.74	51.00	51.85	60.59	64.36
2031	64.86	60.74	56.47	52.68	52.82	52.82	53.64	53.74	54.01	54.65	61.28	64.69
2032	66.10	61.90	57.55	53,69	53.83	53.83	54.66	54.76	55.04	55,69	62.45	65,9
2033	67.46	63.18	58.75	54.81	54.95	54.95	55.80	55.90	56.19	56.85	63,74	67.29
2034	68.73	64.37	59.85	55.83	55.98	55.98	56.84	56.95	57.24	57.92	64.94	68.55

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Deleted: <#>Deadband Index Gas Price

The Deadband Index Gas Price Option bases the fuel price component of the Energy rate on comparisons between the Forecast Gas Price (Table 5) and the simple average of the First of Month gas indices for Sumas and AECO trading hubs. The Northwest Pipeline Gas Index (Sumas) will be as reported in Platts Inside FERC's Gas Market Report. The AECO/NIT (AECO) Gas Index will be as reported in Canadian Gas Price Reporter Natural Gas Market Report (in US dollars). The fuel price component used will be bound between 90% and 110% of the natural gas price forecast but based on the then current gas price.¶

11 ... The price paid per MWh will be:¶
P<sub>Peak</sub> = ..GP<sub>D8</sub>\*HR/1,000/(1-Losses) +VFG +C¶
P<sub>Off</sub> = ..GP<sub>D8</sub>\*HR/1,000/(1-Losses) +VFG¶

Il Under the Deadband method, the Company will pay Seller the Off-Peak prices for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases will be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.) Il

Sheet No. 201-9

### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)

Standard Fixed Price Option (Continued)

					TA	ABLE 2b						
					Avoi	ded Cost	s					
							on for Wi	nd QF				
				0	ff-Peak F	orecast (	\$/MWH)	-				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	34.43	47.68	39.18	11.53	6.18	5.68	18.08	33.33	36.83	35.93	37.68	43.68
2015	39.42	37.64	33.22	20.08	12.92	8.57	20.35	32.82	30.41	33.72	34.67	37.69
2016	39.59	37.81	33.39	20.24	13.08	8.73	20.51	32.99	30.58	33.89	34.84	37.86
2017	41.65	39.78	35.13	21.30	13.76	9.18	21.58	34.70	32.17	35.65	36.65	39.83
2018	44.41	42.41	37.46	22.75	14.74	9.87	23.06	37.02	34.32	38.02	39.09	42,47
2019	47.37	45.25	39.99	24.33	15.80	10.62	24.65	39.51	36.64	40.58	41.72	45.31
2020	49.77	47.51	42.00	26.90	18.42	13.46	28.49	42.81	39.35	42.62	43.86	47.63
2021	39.48	39.13	37.65	35.61	35.68	35.72	35.51	35.55	35.74	36.20	40.22	41.95
2022	42.21	41.59	39.89	37.87	38.02	38.07	38.27	38.29	38.49	38.98	43.64	45.87
2023	45.77	44.98	43.33	41.43	40.91	40.93	41.23	41.05	41.42	41.94	46.95	49.93
2024	50.82	49.78	47.32	45.36	44.67	44.75	45.13	45.05	45.45	46.12	49.27	52.6
2025	52.63	50,42	47.04	45.06	45.03	45.11	45,50	45.42	45.79	46.46	49.48	53.02
2026	52.50	51.41	48.03	45.86	45.35	45.43	45.83	45.75	46.15	46.71	50.28	53.93
2027	52.12	50.39	47.25	44.36	44.33	44.39	44.76	44.67	45.07	45.65	50.55	53.8
2028	51.26	49.65	46.01	43.55	43.47	43.53	43.74	43.80	44.03	44.74	52.72	55.74
2029	57.18	56.42	52.49	49.24	49.28	49.20	49.74	49.84	50.10	50.70	56.41	60.00
2030	60.80	57.33	52.29	48.03	47.77	47.80	48.31	48.40	48.66	49.51	58.25	62.0
2031	62.48	58.36	54.09	50.30	50.44	50.44	51.25	51.35	51.63	52.27	58.90	62.3
2032	63.69	59.49	55.14	51.27	51.42	51.42	52.25	52.35	52.63	53.28	60.03	63.52
2033	64.98	60.71	56.27	52.33	52.48	52.48	53.32	53.42	53.71	54.38	61.26	64,8
2034	66.20	61.84	57.32	53.30	53.45	53.45	54.31	54.42	54.71	55.39	62.41	66.02

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Deleted: <#>Index Gas Price Option¶

The Index Gas Price Option is the simple average of the First of Month gas indices for Sumas and AECO trading hubs used in establishing the Avoided Costs. The Sumas Gas Index will be as reported in Platts Inside FERC's Gas Market Report. The AECO Gas Index will be as reported in the Canadian Gas Price Reporter Natural Gas Market Report (in US dollars).

The price paid per MWh will be:¶

| P<sub>Penk</sub> = . GP<sub>M</sub>\*HR/1,000/(1-Losses) +VFG +C¶ | P<sub>Off</sub> = . GP<sub>M</sub>\*HR/1,000/(1-Losses) +VFG¶

Pow = . GPM THX 1,000 (1-1.05565) TVTCI|

Ill Under the Index Gas Price, the Company will pay Seller the Off-Peak Prices for: (a) for all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard Contract; (d) for Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases will be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

II

#>Mid C Index Price Option

Under this option, prices paid per MWh will be based on the ICE-Mid-C Firm Index plus 0.211 ¢ per KWh for wholesale wheeling.

II

Sheet No. 201-10

## **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

						ABLE 3a						
						ded Cost						
			_		Fixed P			lar QF				
_				0	n-Peak F	orecast (	\$/MWH)		1			_
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56,88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56,56	50,56	42,69	36.42	34.09	52.83	60.24	53,38	51.19	52.88	57.06
2020	61.12	58.27	52.09	43.99	37.53	35.13	54.43	62.06	55.00	52.74	54.48	58.78
2021	45.68	45,33	43.84	41.81	41.88	41.92	41.71	41.75	41.93	42.40	46.42	48.15
2022	48.53	47.91	46.21	44.19	44.34	44.39	44.59	44.60	44.80	45.30	49.96	52.18
2023	52.21	51.42	49.77	47.87	47.35	47.37	47.67	47.50	47.86	48.38	53.39	56.37
2024	57.37	56.32	53.87	51.91	51.22	51.30	51.68	51.60	52.00	52.66	55.82	59,22
2025	59.32	57.10	53.72	51.74	51.72	51.80	52.18	52.10	52.47	53.15	56.17	59.70
2026	59.31	58.23	54.85	52.67	52.17	52.25	52.64	52,56	52.97	53.52	57.09	60.75
2027	59.07	57.34	54.20	51.31	51.27	51.34	51.71	51.61	52.02	52.60	57.50	60.76
2028	58.34	56.73	53.09	50.63	50,55	50.61	50.82	50.88	51.11	51.82	59.80	62.82
2029	64.40	63.64	59.71	56.46	56.49	56.41	56.95	57.05	57.32	57.91	63.62	67.21
2030	68.16	64.69	59.64	55.39	55.13	55.15	55.66	55.76	56.02	56.87	65.61	69.38
2031	69.98	65.86	61.59	57.80	57.94	57.94	58.76	58.86	59.13	59.77	66.40	69.81
2032	71.31	67.11	62,76	58.90	59.04	59.04	59.87	59.97	60.25	60.90	67.66	71.14
2033	72.77	68.49	64.06	60.12	60.26	60.26	61.11	61.21	61.50	62.16	69.05	72.60
2034	74.15	69.79	65.27	61.25	61.40	61.40	62.26	62.37	62.66	63.34	70.36	73.97

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1 Table 5 contains the gas pricing components for Option 1 (

**Deleted:** ) and Option 2 (Deadband Index Gas Price Option).

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Year	Jan	Feb	Mar	Apı
2021	5.56	5.52	5.38	5.2
2022	5.79	5.83	5.79	5.6
2023	6.64	6.67	6.71	6.
2024	7.05	6.94	6.66	6.4
2025	6.99	6.84	6.76	6.
2026	6.99	6.87	6.78	6.
2027	6.95	6.92	6.77	6.0
2028	6.94	6.91	6.68	6.
2029	7.07	7.06	7.04	6.
2030	7.41	7.38	7.26	7.0
2031	7.56	7.58	7.44	7.:
2032	7.70	7.72	7.58	7.3
2033	7.84	7.86	7.72	7.

## Sheet No. 201-11

## **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD PPA (Continued)

Standard Fixed Price Option (Continued)

					T/	ABLE 3b						
					Avo	ded Cost	s					
				Standard	Fixed P	rice Option	on for So	lar QF				
			_	0	ff-Peak F	orecast (	\$/IVIV/H)	- 1				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25,21	17.67	13.09	25.49	38.61	36,08	39.56	40,56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	53.92	51,66	46.15	31.05	22.57	17.61	32.64	46.96	43.50	46.77	48.01	51.78
2021	43.71	43.36	41.88	39.84	39.91	39.95	39.74	39.78	39.97	40.43	44.45	46.18
2022	46.52	45.90	44.20	42.18	42.33	42.38	42.58	42.60	42.80	43.29	47.95	50.18
2023	50.16	49.37	47.72	45.82	45.30	45.32	45.62	45.44	45.81	46.33	51.34	54.32
2024	55.29	54.25	51.79	49.83	49.14	49.22	49.60	49.52	49.92	50.59	53.74	57.15
2025	57.19	54.98	51.60	49.62	49.59	49.67	50.06	49.98	50.35	51.02	54.04	57.58
2026	57.15	56.06	52.68	50.51	50.00	50.08	50.48	50.40	50.80	51.36	54.93	58.58
2027	56.86	55.13	51.99	49.10	49.07	49.13	49.50	49.41	49.81	50.39	55.29	58.55
2028	56.09	54.48	50.84	48.38	48.30	48.36	48.57	48.63	48.86	49.57	57.55	60.57
2029	62.10	61.34	57.41	54.16	54.20	54.12	54.66	54.76	55.02	55.62	61.33	64.92
2030	65.82	62.35	57.31	53.05	52.79	52.82	53.33	53.42	53.68	54.53	63.27	67.05
2031	67.60	63.48	59.21	55.42	55.56	55.56	56.37	56.47	56.75	57.39	64.02	67.43
2032	68.90	64.70	60.35	56.48	56.63	56.63	57.46	57.56	57.84	58.49	65,24	68,73
2033	70.29	66.02	61.58	57.64	57,79	57.79	58,63	58.73	59.02	59.69	66.57	70.12
2034	71.62	67.26	62.74	58.72	58.87	58.87	59.73	59.84	60.13	60.81	67.83	71.44

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Deleted: Table 6 contains the Variable O&M and Fixed Costs that are derived from a natural gas-fired CCCT.¶

еаг	Jan	Feb	Mar	Ap
021	0.19	0.19	0.18	0.
022	0.18	0.18	0.16	0.
023	0.19	0.19	0.19	0.
024	0.28	0.28	0.29	0.
025	0.32	0.31	0.27	0.
026	0.31	0.29	0.28	0.
027	0.29	0.27	0.26	0.
028	0.27	0.26	0.24	0.
029	0.25	0.25	0.22	0.
030	0.27	0.27	0.26	0.
031	0.28	0.28	0.26	0.
032	0.29	0.29	0.27	0.
033	0.29	0.29	0.28	0.

PRICING OPTIONS FOR STANDARD PPA (Continued)

### 2) Renewable Fixed Price Option,

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company during the Renewable Resource Deficiency Period.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15.

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Table 7 represents the variable C in the formulas for Option 2 (Deadband Index Gas

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eleted:				
Year	Jan	Feb	Mar	Ap
2021	56.03	56.03	56.03	56.
2022	56.87	56.87	56.87	56.
2023	58.11	58.11	58.11	58.
2024	59.18	59.18	59.18	59.
2025	60.46	60.46	60.46	60.
2026	61.18	61.18	61.18	61.
2027	62.50	62.50	62.50	62.
2028	63.65	63.65	63,65	63.
2029	64.82	64.82	64.82	64.
2030	66.02	66.02	66.02	66.
2031	67.23	67.23	67.23	67.
2032	68.47	68.47	68.47	68.
2033	69.73	69.73	69.73	69.

Effective for service on and after <u>December 17</u>, 2014

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## PRICING OPTIONS FOR STANDARD PPA (Continued) Renewable Fixed Price Option (Continued)

						ABLE 4a						
				-		e Avoide	d Conto					
			Box	-				Load Q	_			
			Rei					LUAG Q	<u> </u>			
					n-Peak F	orecast (	⊅/IVIVV □)				_	
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56.88	48,63	30.38	30.88	31.03	45.53	54.78	50.38	46,88	48,63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28,80	44,64	50.90	45.10	43.25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46,74	50.42
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56.56	50,56	42.69	36.42	34.09	52.83	60.24	53.38	51. <b>1</b> 9	52.88	57.06
2020	130.42	130.40	129.50	130,04	133.82	132.76	132.39	132.24	130.72	129.58	130.57	129.37
2021	133,36	133.64	131.86	133.13	136.49	135.59	134.91	135.51	133.73	132.54	134.08	132.51
2022	136.24	136.10	133.85	135.90	139.41	138.20	137.67	137.62	136.32	135.14	136.83	135.12
2023	139,39	138.88	136,54	138.99	141.88	141.01	140.60	140.17	139.18	137.81	139.83	138.52
2024	141.20	141.38	139.07	141.45	144.67	143.46	143.33	143.02	142.81	139,99	141.17	141.32
2025	144.44	144.83	142.24	145.02	149.08	147.69	146.57	146.72	145.76	143.11	144.48	144.07
2026	148.08	147.69	145.96	148.54	153.80	149.69	149.69	150.17	149.84	146.23	148.39	147.27
2027	150.98	150.46	148.51	151.01	158.07	152.64	152.20	153.90	152.54	149.20	150.73	150.17
2028	153.78	152.55	150,16	154.12	160.66	154.93	155.77	155.78	154.75	152.38	153.65	152.73
2029	157.02	156.74	153.60	157.59	169.40	159.30	159.39	159.39	159.45	155,48	156.44	156.31
2030	160.28	159.94	157.24	160.66	173.84	164.43	161.89	161.75	163.38	158.51	159.18	159.23
2031	163,23	162.64	160.72	164.67	177.15	169.11	164.90	166.01	166.26	161.75	163.06	162.54
2032	165.75	165.16	163.21	167.22	179.91	171.73	167.46	168.59	168.84	164.26	165.59	165.06
2033	169.59	168.98	166.98	171.09	184.06	175.70	171.33	172.48	172.74	168.06	169.41	168.88
2034	173.01	172.39	170.36	174.55	187.76	179.24	174.79	175.97	176.23	171.46	172.84	172.29

Sheet No. 201-14

## SCHEDULE 201 (Continued)

## PRICING OPTIONS FOR STANDARD PPA (Continued) Renewable Fixed Price Option (Continued)

					T/	ABLE 4b						
				F	Renewabl	e Avoide	Costs		_			
			Rer	newable f	Fixed Price	e Option	for Base	Load QI	=			
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15,23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36,59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25.21	1 <b>7</b> .67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	74.05	74.35	76.18	74.70	70.70	70.98	71.32	72.70	73.76	75.21	<b>7</b> 4.98	75.50
2021	76.61	75.69	77.70	76.08	72.65	72.71	73.48	73.88	75.25	77.66	74.78	76.80
2022	77.70	77.31	79.96	77.27	73.68	74.12	75.90	74.74	76.69	79.10	76.00	78.21
2023	78.70	78.76	81.53	79.38	74.14	75.53	77.17	76.51	78.04	80.71	77.14	79.80
2024	79.35	79.42	83,14	79.16	74.55	77.78	76.40	76.83	78.61	81.03	79.55	80.29
2025	80.96	80.94	84.88	80.33	74.54	78.20	78.02	79.19	79.32	82.81	82.21	81,48
2026	81.35	82.42	85.28	80.89	75.34	79.31	79.11	79.94	79.12	83.91	82.41	82.47
2027	84.14	84.11	86.28	82.99	75.15	80.77	81.16	80.43	80.90	86.39	83.38	83.99
2028	85.29	86.01	88.97	85.07	74.43	82.57	82.76	81.19	82.83	87.06	84.33	86.62
2029	85.87	86.84	90.61	86.72	68.73	82.93	84.21	82.59	84.39	88.00	86.85	88.12
2030	87.21	88.28	92.46	86.89	68.43	83.64	84.98	85.17	84.95	89.66	88.91	89,94
2031	89.10	90.50	93,69	87.32	69.81	83.38	86.78	86.97	85.14	91.14	90.93	90.04
2032	90.57	92.00	95.23	88.76	70.97	84.75	88.21	88.41	86.54	92.64	92.44	91.53
2033	92.57	94.03	97.34	90.72	72.53	86.63	90.16	90.36	88.46	94.69	94.48	93.55
2034	94.36	95.84	99,22	92.47	73.93	88.30	91.90	92.10	90.16	96.52	96,30	95.36

Sheet No. 201-15

## SCHEDULE 201 (Continued)

## PRICING OPTIONS FOR STANDARD PPA (Continued) Renewable Fixed Price Option (Continued)

					T	ABLE 5a						
				F	Renewabl	e Avoide	d Costs					
			1	Renewab	le Fixed I	Price Opt	ion for W	ind QF				
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	44.43	53.18	44.93	26.68	27.18	27.33	41.83	51.08	46.68	43.18	44.93	50.68
2015	46.36	44.02	38.95	32.30	27,00	25.03	40.87	47.13	41.33	39.48	40.91	44.44
2016	45.93	43.62	38.61	32.04	26.81	24.86	40.50	46.69	40.96	39.13	40.54	44.03
2017	48.52	46.08	40.79	33.85	28.32	26.26	42.79	49.32	43.27	41.34	42.83	46.51
2018	52.38	49.75	44.05	36.58	30.62	28.41	46.21	53.25	46.73	44.65	46.26	50.22
2019	55.26	52.49	46.49	38.62	32.35	30.02	48.76	56.17	49.31	47.12	48.81	52.99
2020	89,69	89.67	88.77	89.31	93.09	92.03	91.66	91.52	90.00	88.85	89.84	88.64
2021	91.73	92.00	90.23	91.50	94.85	93.96	93.28	93.88	92.10	90.91	92.44	90.88
2022	93.81	93.66	91.42	93.47	96.98	95.77	95.23	95.19	93.89	92,71	94.39	92.68
2023	96.01	95.50	93.17	95.61	98.50	97.64	97.23	96.79	95.80	94.43	96.45	95.15
2024	97.25	97,43	95.12	97.50	100.71	99.51	99,38	99.07	98.85	96.03	97.21	97.37
2025	99.51	99.89	97.31	100.08	104.15	102.76	101.63	101.79	100.82	98.17	99.55	99.13
2026	102.27	101.88	100.16	102.74	108.00	103.89	103.89	104.37	104.03	100.42	102.58	101.47
2027	104.29	103.77	101.82	104.32	111.38	105.95	105.51	107.22	105.85	102.51	104.04	103.48
2028	106.19	104.96	102.57	106.53	113.07	107.34	108.18	108.19	107.16	104.79	106.06	105.14
2029	108.51	108.23	105.09	109.08	120.90	110.80	110.89	110.89	110.94	106,98	107.94	107.81
2030	110.84	110.49	107.80	111.21	124.40	114.99	112.45	112.31	113.94	109.07	109.73	109.79
2031	112.82	112.24	110.32	114.27	126.75	118.70	114.50	1 <b>1</b> 5.61	115.86	111.35	112.66	112.14
2032	114.68	114.08	112.13	116.15	128.84	120.66	116.38	1 <b>1</b> 7.51	117.77	113.18	114.51	113.99
2033	117.23	116.62	114.62	118.73	131.70	123,34	118.97	120.13	120,39	115.70	117,06	116.52
2034	119.48	118.86	116.83	121.02	134.24	125.71	121.26	122.44	122.70	117.93	119.31	118.76

Sheet No. 201-16

## SCHEDULE 201 (Continued)

## PRICING OPTIONS FOR STANDARD PPA (Continued) Renewable Fixed Price Option (Continued)

						ABLE 5b						
					Renewabl							
			F				ion for W	ind QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	34.43	47.68	39.18	11.53	6.18	5.68	18.08	33.33	36.83	35.93	37.68	43.68
2015	39.42	37.64	33.22	20.08	12.92	8.57	20.35	32.82	30.41	33.72	34.67	37.69
2016	39.59	37.81	33.39	20.24	13.08	8.73	20.51	32.99	30.58	33.89	34.84	37.86
2017	41.65	39.78	35.13	21.30	13.76	9.18	21.58	34.70	32.17	35.65	36.65	39.83
2018	44.41	42.41	37.46	22.75	14.74	9.87	23.06	37,02	34.32	38.02	39.09	42.47
2019	47.37	45.25	39.99	24.33	15.80	10.62	24.65	39.51	36.64	40.58	41.72	45.31
2020	69.90	70.20	72.03	70.55	66.55	66.83	67.17	68.55	69.61	71.06	70.83	71.35
2021	72.38	71.46	73.47	71.85	68.42	68.48	69.25	69.65	71.02	73.43	70.55	72.57
2022	73.39	73.00	75.65	72.96	69.37	69.81	71.59	70.43	72.38	74.79	71.69	73.90
2023	74.31	74.37	77.14	74.99	69.75	71.14	72.78	72.12	73.65	76.32	72.75	75.41
2024	74.88	74.95	78.67	74.69	70.08	73.31	71.93	72.36	74.14	76.56	75.08	75.82
2025	76,40	76.38	80.32	75.77	69.98	73.64	73.46	74.63	74.76	78.25	77.65	76.92
2026	76.70	77.77	80.63	76.24	70.69	74.66	74.46	75.29	74.47	79.26	77.76	77.82
2027	79.40	79.3 <b>7</b>	81,54	78.25	70,41	76,03	76.42	75.69	76.16	81.65	78.64	79.25
2028	80.46	81.18	84.14	80.24	69.60	77.74	77.93	76.36	78.00	82.23	79.50	81.79
2029	80.95	81.92	85.69	81.80	63.81	78.01	79.29	77.67	79.47	83.08	81.93	83.20
2030	82.19	83.26	87,44	81.87	63.41	78.62	79.96	80.15	79.93	84.64	83.89	84.92
2031	83.98	85,38	88.57	82.20	64.69	78.26	81.66	81.85	80.02	86.02	85.81	84.92
2032	85,36	86.79	90.02	83.55	65.76	79.54	83.00	83.20	81.33	87.43	87.23	86. <b>3</b> 2
2033	87.26	88.72	92.03	85,41	67.22	81.32	84.85	85.05	83,15	89.38	89.17	88.24
2034	88.94	90.42	93.80	87.05	68.51	82.88	86.48	86.68	84.74	91.10	90.88	89.94

Sheet No. 201-17

## SCHEDULE 201 (Continued)

## PRICING OPTIONS FOR STANDARD PPA (Continued) Renewable Fixed Price Option (Continued)

	TABLE 6a														
				F	Renewabl	e Avoide	d Costs								
				Renewab	le Fixed F	Price Opt	ion for S	olar QF							
				0	n-Peak F	orecast (	\$/MWH)								
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38			
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21			
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87			
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42			
2018	56.37	53,74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21			
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52,88	57.06			
2020	97.99	97.97	97.07	97.61	101.39	100.33	99.96	99.82	98.30	97.15	98.14	96.94			
2021	100.19	100.46	98.69	99.96	103.31	102.42	101.74	102.34	100.56	99.37	100.90	99.34			
2022	102.43	102.28	100.04	102.09	105.60	104.39	103.85	103.81	102.51	101.33	103.01	101.30			
2023	104.79	104.28	101.95	104.39	107.28	106.42	106.01	105.57	104.58	103.21	105.23	103.93			
2024	106.19	106.37	104.06	106.44	109.65	108.45	108.32	108.01	107.79	104.97	106.15	106.31			
2025	108.63	109.01	106.43	109.20	113.27	111.88	110.75	110.91	109.94	107.29	108.67	108.25			
2026	111.57	111.18	109.46	112.04	117.30	113.19	113,19	113.67	113,33	109.72	111.88	110.77			
2027	113.77	113,25	111.30	113.80	120.86	115.43	114.99	116.70	115.33	111.99	113.52	112.96			
2028	115.85	114.62	112.23	116.19	122.73	117.00	117.84	117.85	116.82	114.45	115.72	114.80			
2029	118.35	118.07	114.93	<b>1</b> 18.92	130.74	120.64	120.73	120.73	120.78	116.82	117.78	117.65			
2030	120.88	120.53	117.84	121.25	134.44	125.03	122,49	122.35	123.98	119.11	119.77	119.83			
2031	123.06	122.48	120.56	124.51	136.99	128.94	124.74	125.85	126.10	121.59	122.90	122.38			
2032	125.10	124.50	122.55	126.57	139.26	131.08	126,80	127.93	128,19	123.60	124,93	124.41			
2033	127.85	127.24	125.24	129.35	142.32	133.96	129.59	130.75	131.01	126.32	127.68	127.14			
2034	130.32	129.70	127.67	131.86	145.08	136,55	132.10	133.28	133,54	128.77	130.15	129.60			

Sheet No. 201-18

## SCHEDULE 201 (Continued)

## PRICING OPTIONS FOR STANDARD PPA (Continued) Renewable Fixed Price Option (Continued)

					T/	ABLE 6b			_			
		-		F	Renewabl		d Costs					
			F	Renewab	le Fixed F	rice Opt	ion for So	olar QF				
				0	ff-Peak F	orecast (	\$/MWH)					
						,						
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49,32	44.06	28.40	19,87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	78.20	78.50	80.33	78.85	74.85	75.13	75.47	76.85	77.91	79.36	79.13	79.65
2021	80.84	79.92	81.93	80.31	76.88	76.94	77.71	78.11	79.48	81.89	79.01	81.03
2022	82.01	81.62	84.27	81.58	77.99	78.43	80.21	79.05	81.00	83,41	80.31	82.52
2023	83.09	83.15	85.92	83.77	78.53	79.92	81.56	80.90	82.43	85.10	81.53	84.19
2024	83.82	83.89	87.61	83.63	79.02	82.25	80.87	81.30	83.08	85.50	84.02	84.76
2025	85.52	85.50	89.44	84.89	79.10	82.76	82.58	83.75	83.88	87.37	86.77	86.04
2026	86.00	87.07	89.93	85.54	79.99	83.96	83.76	84.59	83.77	88.56	87.06	87.12
2027	88,88	88,85	91.02	87.73	79.89	85.51	85.90	85.17	85,64	91.13	88.12	88.73
2028	90.12	90.84	93.80	89.90	79.26	87.40	87.59	86.02	87.66	91.89	89.16	91.45
2029	90.79	91.76	95.53	91.64	73.65	87.85	89.13	87.51	89.31	92.92	91.77	93.04
2030	92.23	93,30	97.48	91.91	73.45	88.66	90.00	90.19	89.97	94.68	93.93	94.96
2031	94.22	95.62	98.81	92.44	74.93	88.50	91.90	92.09	90.26	96.26	96.05	95.16
2032	95.78	97.21	100.44	93.97	76.18	89.96	93.42	93.62	91.75	97.85	97.65	96.74
2033	97.88	99.34	102.65	96.03	77.84	91.94	95.47	95.67	93.77	100.00	99.79	98.86
2034	99.78	101.26	104.64	97.89	79.35	93.72	97.32	97.52	95.58	101.94	101.72	100.78

## Portland General Electric Company Sheet No. 201-19

## SCHEDULE 201 (Continued)

## WIND INTEGRATION

	-
	LE 7
	egration
Year	Cost
2014	3.70
2015	3.77
2016	3.84
2017	3.91
2018	3.99
2019	4.07
2020	4.15
2021	4.23
2022	4.31
2023	4.39
2024	4.47
2025	4.56
2026	4.65
2027	4.74
2028	4.83
2029	4.92
2030	5.02
2031	5.12
2032	5.21
2033	5.31
2034	5.42

Sheet No. 201-20

### SCHEDULE 201 (Continued)

### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard PPA:

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- QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment that economic conditions or claims experience may warrant.
- Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

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### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

Effective for service on and after December 17, 2014 Deleted: ¶

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Sheet No. 201-21

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### **SCHEDULE 201 (Continued)**

### INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

### **DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER** PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10

### Definition of Person(s) or Affiliated Person(s)

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

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Sheet No. 201-22

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### SCHEDULE 201 (Concluded)

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

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### **Definition of Shared Interconnection and Infrastructure**

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

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### OTHER DEFINITIONS

### Mid-C Index Price

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average On-Peak Power and Average Off-Peak Power found on the following website: https://www.theice.com/products/OTC/Physical-Energy/Electricity. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

### **Definition of RPS Attributes**

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity, as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (C02), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

Sheet No. 201-23

### SCHEDULE 201 (Concluded)

### OTHER DEFINITIONS (Continued)

**Definition of Resource Sufficiency Period** 

This is the period from the current year through 2020.

**Definition of Resource Deficiency Period** 

This is the period from 2021 through 2034.

Definition of Renewable Resource Sufficiency Period

This is the period from the current year through 2019.

Definition of Renewable Resource Deficiency Period

This is the period from 2020 through 2034.

### **DISPUTE RESOLUTION**

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA. Disputes may be presented to the Commission for resolution.

### SPECIAL CONDITIONS

- Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill.
   At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

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**Deleted:** if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed

**Deleted:** the standard rates and Standard Contract. Any dispute concerning a QF's entitlement to the standard rates and Standard

### **TERM OF AGREEMENT**

Not less than one year and not to exceed 20 years.

Effective for service on and after December 17, 2014

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I	Schedule 201	Deleted: Appendix 1,
	Standard Off-System Variable Power Purchase Agreement	Deleted: Contract
ı	Effective December 17, 2014	Deleted: For Intermittent Resources¶
Ī	STANDARD, OFF-SYSTEM VARIABLE POWER PURCHASE AGREEMENT,	Deleted: February 20
l		Deleted: CONTRACT
I	THIS AGREEMENT, entered into this day,	Deleted: FOR INTERMITTENT RESOURCES
	20 s between ("Seller")	Deleted: 200
	and Portland General Electric Company ("PGE") (hereinafter each a "Party" or collectively, "Parties").	
	RECITALS	
	Seller intends to construct, own, operate and maintain a	
	facility for the generation of electric power located in	
I	County, with a Nameplate Capacity Rating of kilowatt ("kW"), as further described in Exhibit ("Facility"); and	Deleted: B
	Seller intends to operate the Facility as a "Qualifying Facility," as such term is defined in Section 3.1.3, below.	
	Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.21, below, from the Facility in accordance with the terms and conditions of this Agreement.	Deleted: 18
	AGREEMENT	
	NOW, THEREFORE, the Parties mutually agree as follows:	
	SECTION 1: DEFINITIONS	
	When used in this Agreement, the following terms shall have the following	
	meanings:	
	1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.	Deleted: B
	1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year).	Deleted: per
	1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.	
	1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.	Deleted: <#>"Capacity Value" has the meaning provided for in Schedule 201 (as defined below).¶
	1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:	Deleted: which shall
	1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms	

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Effective December 17, 2014

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1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.35;

and conditions of this Agreement (certifications required under this Section 1.5 can be

provided by one or more LPEs);

1.5.3. (facilities with nameplate under 500 kW exempt from following requirement). After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;

1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed, and all required interconnection tests have been completed;

1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;

1.5.6. PGE has received a copy of the <u>executed Generation Interconnection and</u> Transmission <u>Agreements</u>.

1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices as specified in the Schedule.

1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final contract year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.

1.8. "Effective Date" has the meaning set forth in Section 2.1.

1.9 "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

Deleted: uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period.

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**Deleted:** use of energy from or by the Facility during the Term, including without limitation any of the same arising out of legislation or regulation concerned with

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Deleted: (the "UNFCCC") or the Kyoto Protocol to the UNFCCC or crediting "early action" emissions reduction, or laws or regulations involving or administered by the Clean Air Markets Division of the Environmental Protection Agency or successor administrator, or any State or federal entity given jurisdiction over a program involving transferability of Environmental Attributes, and any Green Tag Reporting Rights to such Environmental Attributes

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- 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period, provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date (For Start-Up Lost Energy Value See 1.34)
- 1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:

### MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)

- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: https://www.theice.com/products/OTC/Physical-Energy/Electricity. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.

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1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.

1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses. Net Output does not include any environmental attributes.

1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.

1.23. "Off-Peak Hours" has the meaning provided in the Schedule.

1.24. "On-Peak Hours" has the meaning provided in the Schedule,

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1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery, in a Contract Year. During up to, but not more than, 200 hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with 5 separate two MW turbines would be 43,800 for a Contract Year.

1.26. "Planned Maintenance" means outages scheduled 90 days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.

1.27. "Point of Delivery" means the PGE system.

1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours – 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.

1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.

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- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.33. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.

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- 1.34. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours and Off-Peak Hours in each day.
- 1.35. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.36. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.

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Schedule 201 Deleted: Appendix 1 Standard Off-System Variable Power Purchase Agreement **Deleted:** Contract Effective December 17, 2014 Deleted: For Intermittent Resources¶ Deleted: February 20 1.37. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date. Deleted: <#>"Schedule 201" shall mean PGE rate Schedule 201 filed with the Oregon Public 1.38. "Test Period" shall mean a period of sixty (60) days or a commercially Utilities Commission in effect on the Effective Date of this Agreement and attached hereto as reasonable period determined by the Seller. Exhibit D.¶ 1.39. "Transmission Agreement" means an agreement executed by the Seller Deleted: Agreement and the Transmission Provider(s) for Transmission Services. 1.40. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure). Deleted: Receipt Deleted: ) 1.41. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price - Contract Price) X curtailed **Deleted:** Intercontinental energy) for periods of Transmission Curtailment. 1.42. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement. 1.43. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than **Deleted:** Receipt the Term of this Agreement. **Deleted:** Contract References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement. Deleted: SECTION SECTION 2: TERM; COMMERCIAL OPERATION DATE This Agreement shall become effective upon execution by both Parties ("Effective Date"). \_\_Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore. [date to be determined by the Seller] Seller shall begin initial 2.2.1. By deliveries of Net Output; and [date to be determined by the Seller] Seller shall have completed all requirements under Section 1,5 and shall have established the Deleted: 6 Commercial Operation Date. Deleted: Operation 2.2.3. In the event Seller is unable to meet the requirements of Sections 2.2.1 and 2.2.2, and if PGE is resource deficient (as defined by the Commission) PGE may terminate this Agreement in accordance with Section 8. Otherwise, PGE may not Deleted: agreement terminate this Agreement, but Seller shall pay PGE the Start-Up Lost Energy Value. Deleted: 9 2.3. This Agreement shall terminate on [date to be chosen Deleted: up to 20 years from the Effective by Seller], or the date the Agreement is terminated in accordance with Section 2 or 11, whichever is earlier ("Termination Date"). Deleted: 9 Deleted: 12

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### SECTION 3: REPRESENTATIONS AND WARRANTIES

3.1.	Seller	and PGE	represe	nt, covenant, a	ina w	arrant as to	llows:			
3.1.1.	Seller	warrants	it is a		duly	organized	under	the	laws	of

- 3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
- 3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
- 3.1.4. Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
- <u>3.1.6.</u> Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8 Seller warrants that Net Dependable Capacity of the Facility is kW.
- 3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is \_\_\_\_\_ kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10. Seller represents and warrants that the <u>Facility</u> shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):

3.1.10.1. Ninety, percent (90%) beginning in the first Contract Year, and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or

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3.1.10.2. Ninety, percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.

3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.

3.1.10.4 Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.

- 3.1.11 Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that (i) the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard PPA in PGE's Schedule and (ii) Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Public Utility Commission of Oregon upon the Commission's request.

### SECTION 4: DELIVERY OF POWER AND PRICE

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through

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any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.

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4.4. Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The Parties' respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.

4.5. Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Environmental Attributes produced with respect to the Facility, and PGE shall not report under such program that such Environmental Attributes belong to it.

### SECTION 5: OPERATION AND CONTROL

5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.

5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time. Deleted: CONTRACT PRICE¶
PGE shall pay Seller for the price options 5.1,
5.2, 5.3 or 5.4, as selected below, pursuant to
Schedule 201. Seller shall indicate which price
option it chooses by marking its choice below
with an X. If Seller chooses the option in
Section 5.1, it must mark below a single second
option from Section 5.2, 5.3, or 5.4 for all
Contract Years in excess of 15 until the
remainder of the Term. Except as provided
herein, Sellers selection is for the Term and
shall not be changed during the Term.
¶

Fixed Price¶

Deadband Index Gas Price¶
Index Gas Price¶
Mid-C Index Rate Price¶

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5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

### SECTION 6: CREDITWORTHINESS

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

### SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30th) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

### SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2 Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for any single Contract Year or Seller's failure to provide any written report required by that section.

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8.1.4. If Seller is no longer a Qualifying Facility.

8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.

8.2. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 3 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights. Provided, however, PGE may not terminate this Agreement for Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10.

**8.3.** If this Agreement is terminated as provided in this Section **8.** PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.

§.4. In the event PGE terminates this Agreement pursuant to this Section §, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.

<u>8.5.</u> Sections <u>8.1</u>, <u>8.3</u>, <u>8.4</u>, <u>10</u>, and <u>19.2</u> shall survive termination of this Agreement.

### SECTION 9: TRANSMISSION CURTAILMENTS

<u>9.1.</u> Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to <u>Section</u> 4.4 of this Agreement.

9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

## SECTION\_10: INDEMNIFICATION AND LIABILITY

10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE

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**Deleted:**, and, except for damages related to a default pursuant to Section 10.1.3 by a QF sized at 100 kW or smaller,

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Schedule 201

Standard Off-System Variable Power Purchase Agreement
Effective December 17, 2014

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such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.

10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent

or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this

Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent

10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.

such loss, claim, action or suit may be caused by the negligence of Seller, its directors,

officers, employees, agents or representatives.

10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

### SECTION 11: INSURANCE

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

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Schedule 201

Standard Off-System Variable Power Purchase Agreement
Effective December 17, 2014

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- 11.2 Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

### SECTION 12: FORCE MAJEURE

12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:

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Schedule 201 Deleted: Appendix 1, Standard Off-System Variable Power Purchase Agreement Deleted: Contract Effective December 17, 2014 Deleted: For Intermittent Resources¶ 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) Deleted: February 20 week after the occurrence of the Force Majeure, give the other Party written notice Deleted: 13 describing the particulars of the occurrence; and 12.2.2 the suspension of performance shall be of no greater scope and of no Deleted: 13 longer duration than is required by the Force Majeure; and 12.2.3. the non-performing Party uses its best efforts to remedy its inability to Deleted: 13 perform its obligations under this Agreement. 12.3. No obligations of either Party which arose before the Force Majeure Deleted: 13 causing the suspension of performance shall be excused as a result of the Force Majeure. 12.4. Neither Party shall be required to settle any strike, walkout, lockout or Deleted: 13 other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests. SECTION\_13: SEVERAL OBLIGATIONS Deleted: 14 Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement. SECTION 14: CHOICE OF LAW Deleted: 15 This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction. SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL Deleted: 16 It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement. In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law. SECTION 16: WAIVER Deleted: 17 Any waiver at any time by either Party of its rights with respect to a default under

this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with

respect to any subsequent default or other matter.

	Schedule 201	Deleted: Appendix 1,
Standard Off-St	stem Variable Power Purchase Agreement	Deleted: Contract
	Effective December 17, 2014	Deleted: For Intermittent Resources¶
SECTION 17: GOVERNMENTAL JURISDICTIO	N AND AUTHORIZATIONS	Deleted: February 20
This Agreement is subject to the jurisdiction having control over either Party or this Agreement. S effect all local, state and federal licenses, permits and required by law for the construction, operation and mai provide upon request copies of the same to PGE.	eller shall at all times maintain in other approvals as then may be	Deleted: 18
SECTION 18: SUCCESSORS AN	ID ASSIGNS	Deleted: 19
This Agreement and all of the terms hereof shall benefit of the respective successors and assigns of the by either Party shall become effective without the will being first obtained and such consent shall in Notwithstanding the foregoing, either Party may assign Party's consent as part of (a) a sale of all or substar assets, or (b) a merger, consolidation or other reorganic	e Parties. No assignment hereof ritten consent of the other Party ot be unreasonably withheld. this Agreement without the other stially all of the assigning Party's	
SECTION, 19: ENTIRE AGRE	EMENT	Deleted: 20
19.1. This Agreement supersedes all representations, negotiations, discussions or letters, where PGE's purchase of Net Output from the Facility. No more be effective unless it is in writing and signed by both Page 1.	nether oral or in writing, regarding odification of this Agreement shall	Deleted: 20
_19.2. By executing this Agreement, Seller rel- claims related to the Facility, known or unknown, wh Effective Date.		Deleted: 20
SECTION 20: NOTICE	S	Deleted: 21
20.1. All notices except as otherwise provide writing, shall be directed as follows and shall be corperson or when deposited in the U.S. Mail, postage mail and return receipt requested:	sidered delivered if delivered in	
To Seller:		
	<del></del>	
with a copy to:		

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	Standard Off-System Variable Power Purchase Agreement	Deleted: Contract
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To PGE:	Contracts Manager QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204	Deleted: 3WTCBR06
or their addresses, b	rties may change the person to whom such notices are addressed, by providing written notices thereof in accordance with this Section	Deleted: 21
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·	pective names as of the Effective Date.	
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PGE By: Name: Title: Date:		Deleted:

Schedule 201
Standard Off-System Variable Power Purchase Agreement
Effective December 17, 2014

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## EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

### [Seller to Complete]

[Sellers may include reasonable expected monthly Net Output for purposes of Section 1.34 (Start-Up Lost Energy Value). Amounts may vary by month and shall be assumed repeated for each Contract Year, unless amounts for each Contract Year of this Agreement are set forth in this Exhibit A. Such amounts, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of this Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.]

Schedule 201
Standard Off-System Variable Power Purchase Agreement
Effective December 17, 2014

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# EXHIBIT B REQUIRED FACILITY DOCUMENTS

[Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

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Deleted: Appendix 1, Schedule 201¶ Standard Contract Off System Power Purchase Agreement¶ For Intermittent Resources¶ Effective February 20, 2014¶

### EXHIBIT C START-UP TESTING

### [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- Pressure tests of all steam system equipment;
- Calibration of all pressure, level, flow, temperature and monitoring instruments:
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- Brake tests;
- 4. Energization of transformers;
- Synchronizing tests (manual and auto);
- 6. Stator windings dielectric test:
- 7. Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs;
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- Governor system steady state stability test;
- Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

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Schedule 201

Standard Off-System Variable Power Purchase Agreement
Effective December 17, 2014

EXHIBIT D
SCHEDULE

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### UM 1931 PGE Exhibit 107

PGE's May 27, 2015 compliance filing in Docket No. UM 1610 responding to Order 15-130

Partial copy of PGE compliance filing including clean and redline versions of Schedule 201 and clean and redline (if available) versions of the Standard Renewable Off-System Variable PPA but not including the clean or redline versions of the remaining seven variants of PGE's contract forms.



V. Denise Saunders
Associate General Counsel

May 27, 2015

Via Electronic Filing and U.S. Mail

Public Utility Commission of Oregon Attn: Filing Center 3930 Fairview Industrial Drive SE P.O. Box 1088 Salem, OR 97308-1088

RE: UM 1610 – Portland General Electric Company's Application in Compliance with OPUC Order No. 15-130

In compliance with ORS 757.205 and OPUC Order No. 15-130 of Docket UM 1610, Portland General Electric Company ("PGE") hereby submits for filing an original and one copy as follows:

- 1. PGE's revised Schedule 201, Qualifying Facility (QF) Power Purchase Information for Qualifying Facilities 10 MW or Less. Also provided as a courtesy is a redlined version of Sheet Nos. 201-1 through Sheet Nos. 201-24.
- 2. PGE's revised standard QF power purchase agreements as identified below, in both clean and redline formats:
  - a. Standard Off-System Variable Power Purchase Agreement
  - b. Standard In-System Non-Variable Power Purchase Agreement
  - c. Standard Off-System Non-Variable Power Purchase Agreement
  - d. Standard In-System Variable Power Purchase Agreement
  - e. Standard Renewable Off-System Non-Variable Power Purchase Agreement
  - f. Standard Renewable Off-System Variable Power Purchase Agreement
  - g. Standard Renewable In-System Variable Power Purchase Agreement
  - h. Standard Renewable In-System Non-Variable Power Purchase Agreement
- 3. A table showing how the changes required by Order No. 15-130 were incorporated in PGE's power purchase agreements and Schedule 201.

Public Utility Commission of Oregon UM 1610 May 27, 2015 Page 2

PGE respectfully requests an effective date of July 23, 2015 for the power purchase agreements and Schedule 201.

Please contact Denise Saunders at (503) 464-7181 or Rob Macfarlane at (503) 464-8954 with any questions pertaining to this filing.

Please direct all formal correspondence and requests to the following email address: pge.opuc.filings@pgn.com.

Sincerely,

V. Denise Saunders

Associate General Counsel

VDS:bp

**Enclosures** 

Sheet No. 201-24

Schedule 201 QF 10 MW or Less

Table Showing Incorporation of Stipulated Terms in PGE Agreements and Schedules Required by OPUC Order No. 15-130 (Docket UM 1610)

May 27, 2015

:S:	Schodulod		Tormination	Not Mooting	oniting of	Dispute	Based/Eamily
In Suction	COD	Cure	for Default	MAG	Failure to Meet	Resolution	Owned Criteria
III-3ystelli	2.2.2	9.1.6	9.2	1.16	9.1.3		
Variable	2.2.3	9.2			9.3		
In-System	2.2.2	9.1.6	9.2	1.14	N/A		
Non-Variable	2.2.3	9.5					
Off-System	2.2.2	8.1.6	8.2	1.16	8.1.3		
Variable	2.2.3	8.2			8.3		
Off-System	2.2.2	8.1.6	8.2	1.14	N/A		
Non-Variable	2.2.3	8.2					
Renewable	2.2.2	9.1.6	9.5	1.16	9.1.3		
In-System	2.2.3	9.5			9.3		
Variable							
Renewable	2.2.2	9.1.6	9.5	1.14	N/A		
In-System	2.2.3	9.5					
Non-Variable							
Renewable	2.2.2	8.1.6	8.2	1.16	8.1.3		
Off-System	2.2.3	8.2			8.3		
Variable							
Renewable Off-System	2.2.2	8.1.6	8.2	1.14	N/A		
Non-Variable							

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

#### **PURPOSE**

To provide information about Standard Avoided Costs and Renewable Avoided Costs, Standard Power Purchase Agreements (PPA) and Negotiated PPAs, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

#### **AVAILABLE**

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

#### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

#### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

#### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

### **PPA**

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a PPA with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

### PPA (Continued)

Any Seller may elect to negotiate a PPA with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on either the filed Standard Avoided Costs or Renewable Avoided Costs in effect at that time.

### STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

### **GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA**

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

#### **OFF-SYSTEM PPA**

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a PPA with the Company after following the applicable Standard or Negotiated PPA guidelines and making the arrangements necessary for transmission of power to the Company's system.

### **BASIS FOR POWER PURCHASE PRICE**

#### AVOIDED COST SUMMARY

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facilities, such utility would generate itself or purchase from another source."

Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

### **ON-PEAK PERIOD**

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

#### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

### 1) Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

### **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15.

					T.	ABLE 1a						
					Avo	ided Cos	ts					
			St					Load QF	:			
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	78.37	78.12	73.80	72.86	73.01	73.16	73.31	73.46	73.62	73.77	75.78	77.10
2022	79.60	79.78	78.44	76.48	76.26	76.34	76.50	76.67	76.84	77.48	80.21	81.34
2023	82.63	82.66	80.27	78.81	78.21	78.22	78.39	78.56	78.73	79.46	82.18	83.13
2024	84.81	84.26	82.55	80.80	80.00	79.66	79.83	80.00	80.18	81.44	83.71	84.67
2025	87.20	86.76	84.95	83.60	83.30	83.50	83.68	83.88	84.08	84.75	87.87	88.86
2026	93.47	93.69	92.94	91.35	91.11	91.34	91.57	91.80	92.04	92.84	96.16	96.79
2027	98.73	98.97	93.85	92.24	91.99	92.22	92.45	92.67	92.91	93.60	96.95	98.01
2028	99.42	99.66	95.01	93.41	93.16	93.39	93.62	93.85	94.09	94.79	98.30	99.38
2029	101.94	101.29	98.21	96.29	95.84	96.08	96.31	96.55	96.80	97.53	100.99	103.20
2030	104.26	103.91	99.35	97.50	97.22	97.47	97.70	97.94	98.19	98.93	102.45	105.78
2031	105.82	105.51	101.80	99.52	99.21	99.46	99.70	99.95	100.20	100.96	104.54	105.68
2032	107.60	107.29	103.51	101.18	100.86	101.12	101.36	101.61	101.87	102.64	106.30	107.46
2033	110.10	109.78	105.92	103.55	103.23	103.49	103.74	103.99	104.26	105.04	108.77	109.96
2034	112.39	112.07	108.14	105.72	105.39	105.66	105.91	106.17	106.44	107.24	111.04	112.25
2035	114.61	114.28	110.27	107.80	107.47	107.74	108.00	108.27	108.54	109.36	113.23	114.47
2036	117.00	116.66	112.57	110.05	109.71	109.99	110.26	110.53	110.81	111.64	115.59	116.85
2037	119.76	119.42	115.25	112.68	112.34	112.62	112.89	113.16	113.45	114.30	118.33	119.61
2038	122.43	122.09	117.83	115.21	114.86	115.15	115.42	115.70	116.00	116.86	120.97	122.28
2039	124.98	124.63	120.29	117.62	117.26	117.55	117.83	118.12	118.42	119.30	123.49	124.82
2040	127.87	127.51	123.09	120.36	119.99	120.29	120.58	120.87	121.18	122.08	126.35	127.71

### **SCHEDULE 201 (Continued)**

					T	ABLE 1b						
					Avoi	ded Cost	s					
			Sta				for Base	Load QF				
				0	ff-Peak F	orecast (	\$/MWH)					
.,												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2021	40.14	39.89	35.57	34.63	34.78	34.93	35.08	35.23	35.39	35.54	37.55	38.87
2022	40.62	40.79	39.46	37.50	37.28	37.35	37.52	37.68	37.85	38.49	41.22	42.36
2023	42.75	42.77	40.39	38.92	38.33	38.34	38.51	38.68	38.85	39.58	42.30	43.25
2024	44.40	43.85	42.14	40.39	39.59	39.25	39.42	39.59	39.77	41.03	43.30	44.26
2025	45.86	45.42	43.61	42.26	41.96	42.16	42.35	42.54	42.74	43.41	46.53	47.52
2026	51.31	51.54	50.79	49.19	48.95	49.19	49.41	49.65	49.89	50.69	54.00	54.64
2027	55.74	55.98	50.87	49.26	49.00	49.24	49.46	49.69	49.93	50.62	53.97	55.02
2028	55.58	55.83	51.18	49.58	49.32	49.56	49.78	50.01	50.25	50.96	54.47	55.54
2029	57.23	56.59	53.51	51.59	51.14	51.38	51.61	51.85	52.10	52.83	56.29	58.50
2030	58.68	58.33	53.77	51.92	51.63	51.88	52.12	52.36	52.61	53.35	56.87	60.20
2031	59.33	59.03	55.32	53.04	52.73	52.98	53.22	53.46	53.72	54.48	58.06	59.20
2032	60.50	60.19	56.41	54.08	53.76	54.02	54.26	54.51	54.77	55.54	59.20	60.36
2033	61.76	61.44	57.59	55.21	54.89	55.15	55.40	55.66	55.92	56.71	60.43	61.62
2034	62.95	62.62	58.69	56.27	55.94	56.21	56.46	56.72	56.99	57.80	61.59	62.80
2035	64.35	64.02	60.01	57.54	57.21	57.48	57.74	58.00	58.28	59.10	62.97	64.20
2036	65.90	65.57	61.48	58.96	58.62	58.90	59.16	59.43	59.72	60.55	64.50	65.76
2037	67.50	67.15	62.99	60.42	60.07	60.35	60.62	60.90	61.18	62.03	66.06	67.34
2038	69.14	68.79	64.54	61.92	61.56	61.85	62.12	62.41	62.70	63.57	67.67	68.98
2039	70.63	70.28	65.94	63.27	62.91	63.20	63.48	63.77	64.07	64.95	69.14	70.47
2040	72.44	72.08	67.66	64.94	64.57	64.87	65.16	65.45	65.75	66.65	70.93	72.28

					T	ABLE 2a						
					Avoi	ded Cost	ts					
				Standard	Fixed P	rice Optic	on for Wi	nd QF				
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.37	21.37	22.37	18.12	19.12	21.37	29.37	30.97	25.87	23.62	25.12	29.37
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32.42	28.38	27.13	28.13	30.59
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98
2019	34.07	32.33	28.56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	34.73	37.74
2020	36.21	34.36	30.37	28.53	27.62	25.35	36.82	42.47	37.23	35.61	36.91	40.10
2021	37.82	37.58	33.25	32.31	32.46	32.62	32.76	32.91	33.07	33.22	35.23	36.56
2022	38.26	38.43	37.10	35.14	34.92	34.99	35.15	35.32	35.49	36.13	38.86	40.00
2023	40.34	40.37	37.98	36.52	35.92	35.93	36.10	36.27	36.45	37.18	39.89	40.84
2024	41.93	41.38	39.67	37.92	37.12	36.78	36.95	37.12	37.30	38.56	40.83	41.79
2025	43.34	42.91	41.10	39.75	39.45	39.65	39.83	40.03	40.23	40.90	44.02	45.01
2026	48.75	48.97	48.22	46.63	46.39	46.63	46.85	47.08	47.32	48.12	51.44	52.08
2027	53.13	53.37	48.25	46.65	46.39	46.63	46.85	47.08	47.32	48.01	51.36	52.41
2028	52.92	53.17	48.52	46.92	46.66	46.90	47.12	47.35	47.59	48.30	51.81	52.88
2029	54.52	53.88	50.79	48.87	48.42	48.66	48.90	49.14	49.38	50.11	53.58	55.79
2030	55.92	55.57	51.00	49.16	48.87	49.12	49.36	49.60	49.85	50.59	54.11	57.44
2031	56.52	56.21	52.51	50.22	49.91	50.16	50.40	50.65	50.90	51.66	55.24	56.38
2032	57.60	57.29	53.51	51.18	50.87	51.12	51.37	51.62	51.88	52.65	56.30	57.46
2033	58.83	58.51	54.66	52.28	51.96	52.22	52.47	52.72	52.99	53.78	57.50	58.69
2034	59.96	59.64	55.70	53.28	52.95	53.22	53.48	53.73	54.01	54.81	58.61	59.81
2035	61.30	60.97	56.96	54.49	54.16	54.43	54.69	54.95	55.23	56.05	59.92	61.16
2036	62.79	62.46	58.37	55.85	55.51	55.78	56.05	56.32	56.60	57.43	61.38	62.64
2037	64.33	63.99	59.82	57.25	56.90	57.19	57.45	57.73	58.02	58.87	62.90	64.18
2038	65.90	65.55	61.30	58.68	58.33	58.62	58.89	59.17	59.46	60.33	64.44	65.74
2039	67.33	66.97	62.64	59.97	59.60	59.90	60.18	60.46	60.76	61.65	65.84	67.17
2040	69.09	68.72	64.30	61.58	61.21	61.51	61.80	62.09	62.39	63.29	67.57	68.92

### **SCHEDULE 201 (Continued)**

					T/	ABLE 2b						
					Avoi	ded Cost	s					
							on for Wi	nd QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	23.12	16.62	17.12	12.12	14.12	15.37	20.12	22.37	21.87	19.37	21.62	24.62
2016	23.22	22.15	19.48	14.70	12.81	9.59	19.29	23.90	21.67	23.46	24.13	26.27
2017	26.36	25.15	22.13	17.56	15.32	11.52	21.46	26.58	24.11	26.02	26.76	29.12
2018	28.61	27.30	24.04	18.21	15.90	11.97	23.81	29.44	26.72	28.90	29.72	32.33
2019	30.35	28.97	25.52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29
2020	32.76	31.27	27.57	20.93	18.31	13.84	27.30	33.70	30.60	33.09	34.02	36.99
2021	35.91	35.66	31.34	30.40	30.55	30.70	30.85	31.00	31.16	31.31	33.32	34.64
2022	36.31	36.48	35.15	33.19	32.97	33.04	33.21	33.37	33.54	34.18	36.91	38.05
2023	38.35	38.37	35.99	34.52	33.93	33.94	34.11	34.28	34.45	35.18	37.90	38.85
2024	39.91	39.36	37.65	35.90	35.10	34.76	34.93	35.10	35.28	36.54	38.81	39.77
2025	41.28	40.84	39.03	37.68	37.38	37.58	37.77	37.96	38.16	38.83	41.95	42.94
2026	46.64	46.87	46.12	44.52	44.28	44.52	44.74	44.98	45.22	46.02	49.33	49.97
2027	50.98	51.22	46.11	44.50	44.24	44.48	44.70	44.93	45.17	45.86	49.21	50.26
2028	50.73	50.98	46.33	44.73	44.47	44.71	44.93	45.16	45.40	46.11	49.62	50.69
2029	52.28	51.64	48.56	46.64	46.19	46.43	46.66	46.90	47.15	47.88	51.34	53.55
2030	53.64	53.29	48.73	46.88	46.59	46.84	47.08	47.32	47.57	48.31	51.83	55.16
2031	54.19	53.89	50.18	47.90	47.59	47.84	48.08	48.32	48.58	49.34	52.92	54.06
2032	55.25	54.94	51.16	48.83	48.51	48.77	49.01	49.26	49.52	50.29	53.95	55.11
2033	56.41	56.09	52.24	49.86	49.54	49.80	50.05	50.31	50.57	51.36	55.08	56.27
2034	57.49	57.16	53.23	50.81	50.48	50.75	51.00	51.26	51.53	52.34	56.13	57.34
2035	58.79	58.46	54.45	51.98	51.65	51.92	52.18	52.44	52.72	53.54	57.41	58.64
2036	60.23	59.90	55.81	53.29	52.95	53.23	53.49	53.76	54.05	54.88	58.83	60.09
2037	61.72	61.37	57.21	54.64	54.29	54.57	54.84	55.12	55.40	56.25	60.28	61.56
2038	63.24	62.89	58.64	56.02	55.66	55.95	56.22	56.51	56.80	57.67	61.77	63.08
2039	64.61	64.26	59.92	57.25	56.89	57.18	57.46	57.75	58.05	58.93	63.12	64.45
2040	66.31	65.95	61.53	58.81	58.44	58.74	59.03	59.32	59.62	60.52	64.80	66.15

### **SCHEDULE 201 (Continued)**

					T/	ABLE 3a						
					Avoi	ded Cost	s					
				Standard	d Fixed P	rice Optic	on for So	lar QF				
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	42.05	41.81	37.48	36.54	36.69	36.85	36.99	37.14	37.30	37.45	39.46	40.79
2022	42.57	42.74	41.41	39.45	39.23	39.30	39.46	39.63	39.80	40.44	43.17	44.31
2023	44.74	44.77	42.38	40.92	40.32	40.33	40.50	40.67	40.85	41.58	44.29	45.24
2024	46.42	45.87	44.16	42.41	41.61	41.27	41.44	41.61	41.79	43.05	45.32	46.28
2025	47.92	47.49	45.68	44.33	44.03	44.23	44.41	44.61	44.81	45.48	48.60	49.59
2026	53.42	53.64	52.89	51.30	51.06	51.30	51.52	51.75	51.99	52.79	56.11	56.75
2027	57.89	58.13	53.01	51.41	51.15	51.39	51.61	51.84	52.08	52.77	56.12	57.17
2028	57.77	58.02	53.37	51.77	51.51	51.75	51.97	52.20	52.44	53.15	56.66	57.73
2029	59.47	58.83	55.74	53.82	53.37	53.61	53.85	54.09	54.33	55.06	58.53	60.74
2030	60.96	60.61	56.04	54.20	53.91	54.16	54.40	54.64	54.89	55.63	59.15	62.48
2031	61.66	61.35	57.65	55.36	55.05	55.30	55.54	55.79	56.04	56.80	60.38	61.52
2032	62.85	62.54	58.76	56.43	56.12	56.37	56.62	56.87	57.13	57.90	61.55	62.71
2033	64.18	63.86	60.01	57.63	57.31	57.57	57.82	58.07	58.34	59.13	62.85	64.04
2034	65.42	65.10	61.16	58.74	58.41	58.68	58.94	59.19	59.47	60.27	64.07	65.27
2035	66.86	66.53	62.52	60.05	59.72	59.99	60.25	60.51	60.79	61.61	65.48	66.72
2036	68.46	68.13	64.04	61.52	61.18	61.45	61.72	61.99	62.27	63.10	67.05	68.31
2037	70.11	69.77	65.60	63.03	62.68	62.97	63.23	63.51	63.80	64.65	68.68	69.96
2038	71.80	71.45	67.20	64.58	64.23	64.52	64.79	65.07	65.36	66.23	70.34	71.64
2039	73.35	72.99	68.66	65.99	65.62	65.92	66.20	66.48	66.78	67.67	71.86	73.19
2040	75.22	74.85	70.43	67.71	67.34	67.64	67.93	68.22	68.52	69.42	73.70	75.05

					T/	ABLE 3b						
					Avoi	ided Cost	s					
						rice Optic		lar QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2021	40.14	39.89	35.57	34.63	34.78	34.93	35.08	35.23	35.39	35.54	37.55	38.87
2022	40.62	40.79	39.46	37.50	37.28	37.35	37.52	37.68	37.85	38.49	41.22	42.36
2023	42.75	42.77	40.39	38.92	38.33	38.34	38.51	38.68	38.85	39.58	42.30	43.25
2024	44.40	43.85	42.14	40.39	39.59	39.25	39.42	39.59	39.77	41.03	43.30	44.26
2025	45.86	45.42	43.61	42.26	41.96	42.16	42.35	42.54	42.74	43.41	46.53	47.52
2026	51.31	51.54	50.79	49.19	48.95	49.19	49.41	49.65	49.89	50.69	54.00	54.64
2027	55.74	55.98	50.87	49.26	49.00	49.24	49.46	49.69	49.93	50.62	53.97	55.02
2028	55.58	55.83	51.18	49.58	49.32	49.56	49.78	50.01	50.25	50.96	54.47	55.54
2029	57.23	56.59	53.51	51.59	51.14	51.38	51.61	51.85	52.10	52.83	56.29	58.50
2030	58.68	58.33	53.77	51.92	51.63	51.88	52.12	52.36	52.61	53.35	56.87	60.20
2031	59.33	59.03	55.32	53.04	52.73	52.98	53.22	53.46	53.72	54.48	58.06	59.20
2032	60.50	60.19	56.41	54.08	53.76	54.02	54.26	54.51	54.77	55.54	59.20	60.36
2033	61.76	61.44	57.59	55.21	54.89	55.15	55.40	55.66	55.92	56.71	60.43	61.62
2034	62.95	62.62	58.69	56.27	55.94	56.21	56.46	56.72	56.99	57.80	61.59	62.80
2035	64.35	64.02	60.01	57.54	57.21	57.48	57.74	58.00	58.28	59.10	62.97	64.20
2036	65.90	65.57	61.48	58.96	58.62	58.90	59.16	59.43	59.72	60.55	64.50	65.76
2037	67.50	67.15	62.99	60.42	60.07	60.35	60.62	60.90	61.18	62.03	66.06	67.34
2038	69.14	68.79	64.54	61.92	61.56	61.85	62.12	62.41	62.70	63.57	67.67	68.98
2039	70.63	70.28	65.94	63.27	62.91	63.20	63.48	63.77	64.07	64.95	69.14	70.47
2040	72.44	72.08	67.66	64.94	64.57	64.87	65.16	65.45	65.75	66.65	70.93	72.28

PRICING OPTIONS FOR STANDARD PPA (Continued)

### 2) Renewable Fixed Price Option

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company during the Renewable Resource Deficiency Period.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15.

### **SCHEDULE 201 (Continued)**

					T.	ABLE 4a						
				F	Renewabl	e Avoide	d Costs					
			Rer	newable l				Load Q	F			
				0	n-Peak F	orecast (	\$/MWH)					
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \												_
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018 2019	36.46 38.14	34.80	31.19 32.63	29.53 30.89	28.71 30.03	26.67 27.89	37.01	42.11 44.06	37.38	35.92 37.58	37.09	39.97 41.81
		36.40					38.72		39.11		38.80	
2020	125.74	126.53	125.41	127.03	140.05	145.57	127.38	130.51	126.75	126.47	126.82	126.50
2021	128.18	129.01	128.18	130.15	141.81	147.45	129.70	133.53	129.93	129.92	129.25	129.25
2022	130.93	131.03	130.40	132.22	146.90	151.40	130.33	135.07	131.40	132.68	131.64	131.28
2023	133.78	133.52	132.29	134.63	149.40	154.53	133.27	136.99	134.07	135.33	134.05	134.61
2024	135.86	136.38	135.36	136.28	146.93	155.96	135.98	140.58	138.31	137.11	136.55	136.70
2025	138.62	138.64	137.83	139.58	150.44	158.68	138.76	145.07	140.30	139.79	139.31	139.77
2026	140.87	141.39	139.68	141.34	152.50	159.44	142.48	146.95	142.42	141.35	141.73	141.93
2027	143.35	143.68	141.92	144.13	156.12	161.22	143.98	150.23	144.81	144.21	143.23	143.91
2028	145.59	145.24	143.77	146.24	154.86	164.58	146.34	151.58	146.46	147.03	145.51	146.47
2029	148.52	148.11	146.70	148.71	156.81	166.96	149.67	154.97	151.19	148.80	148.14	148.56
2030	150.70	150.10	149.63	151.33	158.53	171.27	151.96	157.20	152.65	150.63	150.43	151.36
2031	153.13	152.24	151.91	153.77	160.72	172.88	154.08	160.45	154.91	153.55	152.94	154.66
2032	155.39	155.13	153.42	156.21	163.63	173.43	156.94	163.70	156.96	155.52	155.35	156.18
2033	159.11	157.29	156.26	159.12	166.65	175.17	159.51	166.08	159.59	158.06	158.73	159.11
2034	162.00	160.14	158.93	162.71	168.39	179.93	162.85	168.61	162.36	161.53	161.50	162.49
2035	165.29	162.52	161.82	165.46	170.12	180.84	166.22	172.80	165.75	163.86	164.19	165.36
2036	167.06	164.63	164.72	168.74	172.98	183.24	169.29	177.62	168.66	165.76	166.45	167.44
2037	169.87	168.42	167.79	172.22	176.16	185.49	173.84	181.72	173.07	168.66	170.66	170.35
2038	173.31	171.82	170.94	175.63	180.61	188.47	176.69	185.88	174.80	172.08	173.45	173.29
2039	176.00	174.40	173.68	177.96	184.42	192.12	178.50	185.19	176.58	175.25	176.42	176.04
2040	178.64	177.31	176.42	181.75	186.84	195.04	182.42	188.36	179.69	178.02	179.69	179.60

### **SCHEDULE 201 (Continued)**

					T/	ABLE 4b						
				F	Renewabl	e Avoide	d Costs					
			Rer	newable F	ixed Pric	e Option	for Base	Load Q	F			
				0	ff-Peak F	orecast (	\$/MWH)					
	_			_				_	_			
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	68.58	67.81	70.03	66.95	51.47	41.59	66.31	63.57	67.34	67.56	68.43	67.52
2021	71.70	70.03	70.67	68.13	54.41	44.45	68.58	64.91	68.43	69.50	69.36	69.20
2022	72.83	72.10	72.50	70.14	52.58	43.90	73.59	66.03	71.26	70.61	70.94	71.27
2023	74.08	73.80	75.03	73.19	51.34	44.74	74.72	68.53	72.72	72.11	72.75	73.03
2024	74.27	73.88	76.02	73.85	58.94	50.44	74.10	67.73	72.49	72.53	73.47	74.32
2025	76.37	76.84	78.49	75.22	60.00	52.58	76.18	69.30	74.23	74.75	76.80	74.78
2026	78.55	78.33	81.13	78.05	64.87	53.28	76.32	71.90	76.57	77.89	78.72	77.07
2027	81.57	80.52	82.48	79.59	65.36	56.20	79.64	72.83	78.65	80.47	80.82	79.73
2028	83.33	83.05	84.80	82.68	69.45	56.44	82.37	73.98	81.24	81.50	82.54	82.21
2029	84.45	85.45	86.98	85.41	72.98	59.37	84.03	75.52	82.32	84.06	85.12	85.43
2030	87.14	88.37	89.47	86.42	76.31	62.56	85.40	78.15	85.83	87.25	87.66	87.28
2031	89.62	91.21	92.09	88.87	79.11	66.01	88.30	81.26	87.31	89.03	90.93	87.50
2032	91.36	92.90	94.09	90.37	81.83	66.80	89.22	81.75	89.34	92.12	91.54	90.26
2033	94.30	96.19	97.29	93.45	84.73	71.50	93.78	83.69	92.81	95.63	94.00	93.33
2034	96.65	98.62	99.97	95.91	86.88	71.32	95.58	86.58	95.37	97.26	96.55	96.04
2035	97.26	101.39	102.07	98.18	90.58	76.12	97.06	86.87	97.82	99.24	98.90	98.15
2036	100.30	103.84	104.15	98.13	92.11	81.09	97.21	87.79	98.23	102.10	102.08	99.77
2037	103.90	106.19	107.32	100.80	96.72	82.63	98.42	89.65	99.63	105.58	103.83	103.24
2038	106.63	108.17	109.11	102.76	97.37	85.19	101.14	90.69	103.90	108.20	105.75	105.85
2039	109.65	111.37	112.13	106.34	98.97	86.96	106.48	96.20	108.22	110.60	108.44	108.86
2040	112.13	113.43	114.50	108.34	100.07	89.08	107.33	97.98	110.92	112.29	110.09	110.91

### **SCHEDULE 201 (Continued)**

	TABLE 5a											
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Wind QF											
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.37	21.37	22.37	18.12	19.12	21.37	29.37	30.97	25.87	23.62	25.12	29.37
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32.42	28.38	27.13	28.13	30.59
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98
2019	34.07	32.33	28.56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	34.73	37.74
2020	85.86	86.65	85.54	87.16	100.18	105.69	87.50	90.64	86.87	86.60	86.95	86.62
2021	87.40	88.23	87.41	89.37	101.03	106.68	88.92	92.76	89.15	89.14	88.47	88.47
2022	89.35	89.45	88.82	90.65	105.32	109.82	88.76	93.49	89.83	91.11	90.06	89.71
2023	91.25	91.00	89.77	92.10	106.88	112.00	90.75	94.46	91.55	92.81	91.53	92.08
2024	92.74	93.26	92.24	93.16	103.81	112.84	92.86	97.46	95.19	93.99	93.43	93.58
2025	94.53	94.55	93.74	95.49	106.35	114.59	94.67	100.98	96.21	95.70	95.22	95.68
2026	95.91	96.43	94.72	96.38	107.54	114.49	97.52	101.99	97.46	96.39	96.77	96.97
2027	97.49	97.83	96.07	98.27	110.27	115.36	98.12	104.38	98.96	98.36	97.37	98.06
2028	98.83	98.49	97.01	99.48	108.10	117.82	99.59	104.83	99.70	100.27	98.75	99.71
2029	100.84	100.43	99.01	101.03	109.12	119.27	101.99	107.29	103.51	101.12	100.45	100.88
2030	102.09	101.49	101.02	102.72	109.91	122.66	103.35	108.59	104.04	102.01	101.81	102.75
2031	103.55	102.66	102.33	104.19	111.14	123.30	104.50	110.88	105.33	103.98	103.36	105.08
2032	105.12	104.87	103.15	105.94	113.37	123.17	106.67	113.43	106.70	105.25	105.09	105.92
2033	107.55	105.73	104.70	107.57	115.10	123.61	107.96	114.52	108.04	106.50	107.17	107.56
2034	109.28	107.42	106.21	109.99	115.67	127.21	110.13	115.89	109.64	108.81	108.77	109.77
2035	111.68	108.91	108.21	111.85	116.51	127.23	112.61	119.19	112.14	110.25	110.58	111.75
2036	112.55	110.12	110.20	114.23	118.47	128.73	114.78	123.11	114.15	111.25	111.94	112.93
2037	114.13	112.67	112.05	116.48	120.41	129.75	118.09	125.98	117.33	112.92	114.91	114.61
2038	116.47	114.98	114.10	118.79	123.77	131.63	119.85	129.04	117.96	115.24	116.60	116.45
2039	118.03	116.44	115.72	119.99	126.46	134.15	120.53	127.22	118.62	117.28	118.45	118.07
2040	119.52	118.20	117.31	122.64	127.73	135.93	123.31	129.24	120.58	118.91	120.58	120.48

	TABLE 5b											
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Wind QF											
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	23.12	16.62	17.12	12.12	14.12	15.37	20.12	22.37	21.87	19.37	21.62	24.62
2016	23.22	22.15	19.48	14.70	12.81	9.59	19.29	23.90	21.67	23.46	24.13	26.27
2017	26.36	25.15	22.13	17.56	15.32	11.52	21.46	26.58	24.11	26.02	26.76	29.12
2018	28.61	27.30	24.04	18.21	15.90	11.97	23.81	29.44	26.72	28.90	29.72	32.33
2019	30.35	28.97	25.52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29
2020	64.43	63.66	65.88	62.80	47.32	37.44	62.16	59.42	63.19	63.41	64.28	63.37
2021	67.47	65.80	66.44	63.90	50.18	40.22	64.35	60.68	64.20	65.27	65.13	64.97
2022	68.52	67.79	68.19	65.83	48.27	39.59	69.28	61.72	66.95	66.30	66.63	66.96
2023	69.68	69.40	70.63	68.79	46.94	40.34	70.32	64.13	68.32	67.71	68.35	68.63
2024	69.78	69.39	71.53	69.36	54.45	45.95	69.61	63.24	68.00	68.04	68.98	69.83
2025	71.80	72.27	73.92	70.65	55.43	48.01	71.61	64.73	69.66	70.18	72.23	70.21
2026	73.89	73.67	76.47	73.39	60.21	48.62	71.66	67.24	71.91	73.23	74.06	72.41
2027	76.81	75.76	77.72	74.83	60.60	51.44	74.88	68.07	73.89	75.71	76.06	74.97
2028	78.48	78.20	79.95	77.83	64.60	51.59	77.52	69.13	76.39	76.65	77.69	77.36
2029	79.50	80.50	82.03	80.46	68.03	54.42	79.08	70.57	77.37	79.11	80.17	80.48
2030	82.10	83.33	84.43	81.38	71.27	57.52	80.36	73.11	80.79	82.21	82.62	82.24
2031	84.48	86.07	86.95	83.73	73.97	60.87	83.16	76.12	82.17	83.89	85.79	82.36
2032	86.12	87.66	88.85	85.13	76.59	61.56	83.98	76.51	84.10	86.88	86.30	85.02
2033	88.95	90.84	91.94	88.10	79.38	66.15	88.43	78.34	87.46	90.28	88.65	87.98
2034	91.20	93.17	94.52	90.46	81.43	65.87	90.13	81.13	89.92	91.81	91.10	90.59
2035	91.70	95.83	96.51	92.62	85.02	70.56	91.50	81.31	92.26	93.68	93.34	92.59
2036	94.63	98.17	98.48	92.46	86.44	75.42	91.54	82.12	92.56	96.43	96.41	94.10
2037	98.12	100.41	101.54	95.02	90.94	76.85	92.64	83.87	93.85	99.80	98.05	97.46
2038	100.74	102.28	103.22	96.87	91.48	79.30	95.25	84.80	98.01	102.31	99.86	99.96
2039	103.64	105.36	106.12	100.33	92.96	80.95	100.47	90.19	102.21	104.59	102.43	102.85
2040	106.00	107.30	108.37	102.21	93.94	82.95	101.20	91.85	104.79	106.16	103.96	104.78

### **SCHEDULE 201 (Continued)**

	TABLE 6a											
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Solar QF											
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	90.01	90.80	89.69	91.31	104.33	109.84	91.65	94.79	91.02	90.75	91.10	90.77
2021	91.63	92.46	91.64	93.60	105.26	110.91	93.15	96.99	93.38	93.37	92.70	92.70
2022	93.66	93.76	93.13	94.96	109.63	114.13	93.07	97.80	94.14	95.42	94.37	94.02
2023	95.65	95.40	94.17	96.50	111.28	116.40	95.15	98.86	95.95	97.21	95.93	96.48
2024	97.23	97.75	96.73	97.65	108.30	117.33	97.35	101.95	99.68	98.48	97.92	98.07
2025	99.10	99.12	98.31	100.06	110.92	119.16	99.24	105.55	100.78	100.27	99.79	100.25
2026	100.57	101.09	99.38	101.04	112.20	119.15	102.18	106.65	102.12	101.05	101.43	101.63
2027	102.25	102.59	100.83	103.03	115.03	120.12	102.88	109.14	103.72	103.12	102.13	102.82
2028	103.68	103.34	101.86	104.33	112.95	122.67	104.44	109.68	104.55	105.12	103.60	104.56
2029	105.79	105.38	103.96	105.98	114.07	124.22	106.94	112.24	108.46	106.07	105.40	105.83
2030	107.13	106.53	106.06	107.76	114.95	127.70	108.39	113.63	109.08	107.05	106.85	107.79
2031	108.69	107.80	107.47	109.33	116.28	128.44	109.64	116.02	110.47	109.12	108.50	110.22
2032	110.36	110.11	108.39	111.18	118.61	128.41	111.91	118.67	111.94	110.49	110.33	111.16
2033	112.90	111.08	110.05	112.92	120.45	128.96	113.31	119.87	113.39	111.85	112.52	112.91
2034	114.73	112.87	111.66	115.44	121.12	132.66	115.58	121.34	115.09	114.26	114.22	115.22
2035	117.24	114.47	113.77	117.41	122.07	132.79	118.17	124.75	117.70	115.81	116.14	117.31
2036	118.22	115.79	115.87	119.90	124.14	134.40	120.45	128.78	119.82	116.92	117.61	118.60
2037	119.91	118.45	117.83	122.26	126.19	135.53	123.87	131.76	123.11	118.70	120.69	120.39
2038	122.36	120.87	119.99	124.68	129.66	137.52	125.74	134.93	123.85	121.13	122.49	122.34
2039	124.04	122.45	121.73	126.00	132.47	140.16	126.54	133.23	124.63	123.29	124.46	124.08
2040	125.65	124.33	123.44	128.77	133.86	142.06	129.44	135.37	126.71	125.04	126.71	126.61

	TABLE 6b											
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Solar QF											
				0	ff-Peak F	orecast (	\$/MWH)					
V .	V											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	68.58	67.81	70.03	66.95	51.47	41.59	66.31	63.57	67.34	67.56	68.43	67.52
2021	71.70	70.03	70.67	68.13	54.41	44.45	68.58	64.91	68.43	69.50	69.36	69.20
2022	72.83	72.10	72.50	70.14	52.58	43.90	73.59	66.03	71.26	70.61	70.94	71.27
2023	74.08	73.80	75.03	73.19	51.34	44.74	74.72	68.53	72.72	72.11	72.75	73.03
2024	74.27	73.88	76.02	73.85	58.94	50.44	74.10	67.73	72.49	72.53	73.47	74.32
2025	76.37	76.84	78.49	75.22	60.00	52.58	76.18	69.30	74.23	74.75	76.80	74.78
2026	78.55	78.33	81.13	78.05	64.87	53.28	76.32	71.90	76.57	77.89	78.72	77.07
2027	81.57	80.52	82.48	79.59	65.36	56.20	79.64	72.83	78.65	80.47	80.82	79.73
2028	83.33	83.05	84.80	82.68	69.45	56.44	82.37	73.98	81.24	81.50	82.54	82.21
2029	84.45	85.45	86.98	85.41	72.98	59.37	84.03	75.52	82.32	84.06	85.12	85.43
2030	87.14	88.37	89.47	86.42	76.31	62.56	85.40	78.15	85.83	87.25	87.66	87.28
2031	89.62	91.21	92.09	88.87	79.11	66.01	88.30	81.26	87.31	89.03	90.93	87.50
2032	91.36	92.90	94.09	90.37	81.83	66.80	89.22	81.75	89.34	92.12	91.54	90.26
2033	94.30	96.19	97.29	93.45	84.73	71.50	93.78	83.69	92.81	95.63	94.00	93.33
2034	96.65	98.62	99.97	95.91	86.88	71.32	95.58	86.58	95.37	97.26	96.55	96.04
2035	97.26	101.39	102.07	98.18	90.58	76.12	97.06	86.87	97.82	99.24	98.90	98.15
2036	100.30	103.84	104.15	98.13	92.11	81.09	97.21	87.79	98.23	102.10	102.08	99.77
2037	103.90	106.19	107.32	100.80	96.72	82.63	98.42	89.65	99.63	105.58	103.83	103.24
2038	106.63	108.17	109.11	102.76	97.37	85.19	101.14	90.69	103.90	108.20	105.75	105.85
2039	109.65	111.37	112.13	106.34	98.97	86.96	106.48	96.20	108.22	110.60	108.44	108.86
2040	112.13	113.43	114.50	108.34	100.07	89.08	107.33	97.98	110.92	112.29	110.09	110.91

### WIND INTEGRATION

TABLE 7							
Wind Integration							
Year	Cost						
2015	3.76						
2016	3.84						
2017	3.91						
2018	3.99						
2019	4.07						
2020	4.15						
2021	4.23						
2022	4.31						
2023	4.40						
2024	4.49						
2025	4.57						
2026	4.66						
2027	4.76						
2028	4.85						
2029	4.95						
2030	5.04						
2031	5.14						
2032	5.24						
2033	5.35						
2034	5.45						
2035	5.56						
2036	5.67						
2037	5.78						
2038	5.89						
2039	6.01						
2040	6.13						

#### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard PPA:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment, that economic conditions or claims experience may warrant.
- Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

### INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

# DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10 MW. A Community-Based or Family-Owned QF is exempt from these restrictions.

### **Definition of Community-Based**

- a. A community project (or a community sponsored project) must have a recognized and established organization located within the county of the project or within 50 miles of the project that has a genuine role in helping the project be developed and must have some not insignificant continuing role with or interest in the project after it is completed and placed in service.
- b. After excluding the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, the equity (ownership) interests in a community sponsored project must be owned in substantial percentage (80 percent or more) by the following persons (individuals and entities): (i) the sponsoring organization, or its controlled affiliates; (ii) members of the sponsoring organization (if it is a membership organization) or owners of the sponsorship organization (if it is privately owned); (iii) persons who live in the county in which the project is located or who live a county adjoining the county in which the project is located; or (iv) units of local government, charities, or other established nonprofit organizations active either in the county in which the project is located or active in a county adjoining the county in which the project is located.

#### **Definition of Family-Owned**

After excluding the ownership interest of the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, five or fewer individuals own 50 percent or more of the equity of the project entity, or fifteen or fewer individuals own 90 percent or more of the project entity. A "look through" rule applies to closely held entities that hold the project entity, so that equity held by LLCs, trusts, estates, corporations, partnerships or other similar entities is considered held by the equity owners of the look through entity. An individual is a natural person. In counting to five or fifteen, spouses or children of an equity owner of the project owner who also have an equity interest are aggregated and counted as a single individual.

### **SCHEDULE 201 (Concluded)**

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

### **Definition of Person(s) or Affiliated Person(s)**

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

#### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

#### **Definition of Shared Interconnection and Infrastructure**

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

### **OTHER DEFINITIONS**

### **Mid-C Index Price**

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average

#### OTHER DEFINITIONS (Continued)

On-Peak Power and Average Off-Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

### **Definition of RPS Attributes**

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

#### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

### **Definition of Resource Sufficiency Period**

This is the period from the current year through 2020.

#### **Definition of Resource Deficiency Period**

This is the period from 2021 through 2034.

### **Definition of Renewable Resource Sufficiency Period**

This is the period from the current year through 2019.

### **Definition of Renewable Resource Deficiency Period**

This is the period from 2020 through 2034.

### **DISPUTE RESOLUTION**

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA.

The QF may present disputes to the Commission for resolution using the following process:

The QF may file a complaint asking the Commission to adjudicate disputes regarding the formation of the standard contract. The QF may not file such a complaint during any 15-day period in which the utility has the obligation to respond, but must wait until the 15-day period has passed.

The utility may respond to the complaint within ten days of service.

The Commission will limit its review to the issues identified in the complaint and response, and utilize a process similar to the arbitration process adopted to facilitate the execution of interconnection agreements among telecommunications carriers. See OAR 860, Division 016. The administrative law judge will not act as an arbitrator.

### **SPECIAL CONDITIONS**

- 1. Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- 3. Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

### **TERM OF AGREEMENT**

Not less than one year and not to exceed 20 years.

### STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE

### **AGREEMENT**

THIS AGREEMENT, entered into this day,
20, is between ("Seller")
and Portland General Electric Company ("PGE") (hereinafter each a "Party" or collectively, "Parties").
RECITALS
Seller intends to construct, own, operate and maintain a
facility for the generation of electric power located in
County, with a Nameplate Capacity Rating of kilowatt
("kW"), as further described in Exhibit A ("Facility"); and
Seller intends to operate the Facility as a "Qualifying Facility," as such term is
defined in Section 3.1.3, below.
Caller shall sall and DCE shall nurshass the entire Net Output, as such term is
Seller shall sell and PGE shall purchase the entire Net Output, as such term is
defined in Section 1.21, below, from the Facility in accordance with the terms and
conditions of this Agreement.
AGREEMENT

NOW, THEREFORE, the Parties mutually agree as follows:

### **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.

- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:
- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.

- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.
  - 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with \_\_\_\_\_\_electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period (provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date) plus any reasonable costs incurred by PGE to purchase

replacement power and/or transmission to deliver the replacement power to the Point of Delivery (For Start-Up Lost Energy Value See 1.35).

- 1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:
  - MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)
- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.

- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.
- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture

not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours and Off-Peak Hours in each day.
- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).

- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

### SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
- 2.2.1. By \_\_\_\_\_ [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
- 2.2.2. By \_\_\_\_\_ [date to be determined by the Seller subject to Section 2.2.3 below] Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
- 2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.
- 2.3. This Agreement shall terminate on \_\_\_\_\_\_\_, \_\_\_\_ [date to be chosen by Seller], or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").

### **SECTION 3: REPRESENTATIONS AND WARRANTIES**

3.1. Seller and PGE represent, covenant, and warrant as follows:

3.1.1. Seller warrants it is a	duly organized under the laws of
3.1.2. Seller warrants that the execution and contravene any provision of, or constitute a default other material agreement binding on Seller or ar regulatory agency or other body having authority to	t under, any indenture, mortgage, or ny valid order of any court, or any
3.1.3. Seller warrants that the Facility is and continue to be a "Qualifying Facility" ("QF") as that C.F.R. Part 292 in effect on the Effective Date. Sel certification, which may include a Federal Energy self-certification to PGE prior to PGE's execution of the Term of this Agreement, PGE may require Seatisfactory to PGE in its reasonable discretion that QF under all applicable requirements.	term is defined in the version of 18 ller has provided the appropriate QF Regulatory Commission ("FERC") this Agreement. At any time during eller to provide PGE with evidence
3.1.4. Seller warrants that it has not within debtor in any bankruptcy proceeding, and Seller is of this Agreement current on all of its financial obligation.	and will continue to be for the Term
3.1.5. Seller warrants that during the Term of title and interest in and to the Facility shall be encumbrances other than liens and encumbrances the Facility other than workers', mechanics', suppleach case arising in the ordinary course of busine payable or that have been released by means of PGE posted within eight (8) calendar days of the ordinary course the lien.	e free and clear of all liens and arising from third-party financing of liers' or similar liens, or tax liens, in ess that are either not yet due and a performance bond acceptable to
3.1.6. Seller warrants that it will design and Prudent Electrical Practices.	operate the Facility consistent with
3.1.7. Seller warrants that the Facility has greater than 10,000 kW. $ \label{eq:continuous} % \begin{array}{c} \text{ and } \text{ on } $	a Nameplate Capacity Rating not
3.1.8. Seller warrants that Net Dependa	able Capacity of the Facility is
3.1.9. Seller estimates that the average annufacility to PGE is kilowatt-hours ("kWhits resource planning."	•

3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):

- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.
- 3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005

through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

### SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5. During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of

this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

### SECTION 5: OPERATION AND CONTROL

- 5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

### **SECTION 6: CREDITWORTHINESS**

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably

acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

### SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

### SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for two consecutive Contract Years or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
  - 8.1.6. Seller's failure to meet the Commercial Operation Date.
- 8.2. In the event of a default under Section 8.1.6, PGE may provide Seller with written notice of default. Seller shall have one year in which to cure the default during which time the Seller shall pay PGE damages equal to the Lost Energy Value. If Seller

is unable to cure the default, PGE may immediately terminate this Agreement as provided in Section 8.3. PGE's resource sufficiency/deficiency position shall have no bearing on PGE's right to terminate the Agreement under this Section 8.2.

- 8.3. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.5. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.6. Sections 8.1, 8.4, 8.5, 10, and 19.2 shall survive termination of this Agreement.

### SECTION 9: TRANSMISSION CURTAILMENTS

- 9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.
- 9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

### SECTION 10: INDEMNIFICATION AND LIABILITY

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

# **SECTION 11: INSURANCE**

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of

insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

# SECTION 12: FORCE MAJEURE

12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect

the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

### **SECTION 13: SEVERAL OBLIGATIONS**

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

### SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations

concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

### **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

# SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

### SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

### **SECTION 19: ENTIRE AGREEMENT**

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

### **SECTION 20: NOTICES**

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in

person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

	To Seller:	
	with a copy to:	
	To DCE:	Contracts Manager
	To PGE:	Contracts Manager QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204
or the 20.		may change the person to whom such notices are addressed viding written notices thereof in accordance with this Section
execu		REOF, the Parties hereto have caused this Agreement to be enames as of the Effective Date.
PGE		
	:	
Title: $\_$		<del></del>
(Name	e Seller)	
Name Title: <sub>-</sub>	·	
Date:_		<del></del> -

# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

### [Seller to Complete]

[Sellers may include reasonable expected monthly Net Output for purposes of Section 1.35 (Start-Up Lost Energy Value). Amounts may vary by month and shall be assumed repeated for each Contract Year, unless amounts for each Contract Year of this Agreement are set forth in this Exhibit A. Such amounts, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of this Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.]

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

# [Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

# EXHIBIT C START-UP TESTING

### [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- 1. Pressure tests of all steam system equipment:
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments:
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- Brake tests:
- Energization of transformers;
- 5. Synchronizing tests (manual and auto):
- 6. Stator windings dielectric test:
- Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs:
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

# EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

# PORTLAND GENERAL ELECTRIC COMPANY'S APPLICATION IN COMPLIANCE WITH OPUC ORDER No. 15-130

# REDLINED VERSION OF THE

SCHEDULE 201, QUALIFYING FACILITY (QF) POWER PURCHASE INFORMATION

AND

STANDARD QF POWER PURCHASE AGREEMENTS

MAY 22, 2015

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

### **PURPOSE**

To provide information about Standard Avoided Costs and Renewable Avoided Costs, Standard Power Purchase Agreements (PPA) and Negotiated PPAs, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

### **AVAILABLE**

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

### **PPA**

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a PPA with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

### PPA (Continued)

Any Seller may elect to negotiate a PPA with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on either the filed Standard Avoided Costs or Renewable Avoided Costs in effect at that time.

### STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

### **GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA**

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

#### **OFF-SYSTEM PPA**

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a PPA with the Company after following the applicable Standard or Negotiated PPA guidelines and making the arrangements necessary for transmission of power to the Company's system.

### **BASIS FOR POWER PURCHASE PRICE**

#### AVOIDED COST SUMMARY

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

### **ON-PEAK PERIOD**

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

### 1) Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

Sheet No. 201-5

# **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15.

# PRICING OPTIONS FOR STANDARD PPA (Continued) Standard Fixed Price Option (Continued)

					T.	ABLE 1a						
						ided Cos						
			St					Load QF				
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06
2020	61.12	58.27	52.09	43.99	37.53	35.13	54.43	62.06	55.00	52.74	54.48	58.78
2021	83.08	82.73	81.25	79.21	79.28	79.32	79.11	79.15	79.34	79.80	83.82	85.55
2022	86.66	86.03	84.34	82.31	82.46	82.52	82.71	82.73	82.93	83.42	88.08	90.31
2023	91.20	90.41	88.76	86.86	86.34	86.36	86.66	86.48	86.85	87.37	92.37	95.36
2024	96.86	95.81	93.35	91.39	90.70	90.78	91.16	91.09	91.49	92.15	95.30	98.71
2025	99.69	97.48	94.10	92.12	92.10	92.18	92.56	92.48	92.85	93.52	96.54	100.08
2026	100.47	99.38	96.00	93.83	93.32	93.40	93.80	93.72	94.12	94.68	98.25	101.90
2027	101.02	99.29	96.15	93.26	93.22	93.29	93.66	93.56	93.97	94.55	99.45	102.71
2028	101.10	99.49	95.85	93.39	93.31	93.37	93.58	93.64	93.87	94.58	102.56	105.58
2029	107.98	107.22	103.29	100.04	100.08	100.00	100.54	100.64	100.90	101.50	107.20	110.79
2030	112.59	109.12	104.07	99.81	99.56	99.58	100.09	100.18	100.44	101.29	110.03	113.81
2031	115.26	111.15	106.88	103.09	103.23	103.23	104.04	104.14	104.41	105.06	111.68	115.10
2032	117.17	112.98	108.63	104.76	104.90	104.90	105.73	105.83	106.11	106.77	113.52	117.00
2033	119.82	115.54	111.10	107.17	107.31	107.31	108.16	108.26	108.54	109.21	116.10	119.64
2034	122.26	117.90	113.38	109.36	109.51	109.51	110.37	110.48	110.77	111.45	118.47	122.08

					T	ABLE 1a						
						ided Cos						
			St					Load QF				
				0	n-Peak F	orecast (	\$/MWH)		-			
Year	ar Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov De											
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2015	31.43	30.01	26.13	25.51	24.81	23.13	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2017	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2019	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	78.37	78.12	73.80	72.86	73.01	73.16	73.31	73.46	73.62	73.77	75.78	77.10
2022	79.60	79.78	78.44	76.48	76.26	76.34	76.50	76.67	76.84	77.48	80.21	81.34
2023	82.63	82.66	80.27	78.81	78.21	78.22	78.39	78.56	78.73	79.46	82.18	83.13
2024	84.81	84.26	82.55	80.80	80.00	79.66	79.83	80.00	80.18	81.44	83.71	84.67
2025	87.20	86.76	84.95	83.60	83.30	83.50	83.68	83.88	84.08	84.75	87.87	88.86
2026	93.47	93.69	92.94	91.35	91.11	91.34	91.57	91.80	92.04	92.84	96.16	96.79
2027	98.73	98.97	93.85	92.24	91.99	92.22	92.45	92.67	92.91	93.60	96.95	98.01
2028	99.42	99.66	95.01	93.41	93.16	93.39	93.62	93.85	94.09	94.79	98.30	99.38
2029	101.94	101.29	98.21	96.29	95.84	96.08	96.31	96.55	96.80	97.53	100.99	103.20
2030	104.26	103.91	99.35	97.50	97.22	97.47	97.70	97.94	98.19	98.93	102.45	105.78
2031	105.82	105.51	101.80	99.52	99.21	99.46	99.70	99.95	100.20	100.96	104.54	105.68
2032	107.60	107.29	103.51	101.18	100.86	101.12	101.36	101.61	101.87	102.64	106.30	107.46
2033	110.10	109.78	105.92	103.55	103.23	103.49	103.74	103.99	104.26	105.04	108.77	109.96
2034	112.39	112.07	108.14	105.72	105.39	105.66	105.91	106.17	106.44	107.24	111.04	112.25
2035	114.61	114.28	110.27	107.80	107.47	107.74	108.00	108.27	108.54	109.36	113.23	114.47
2036	117.00	116.66	112.57	110.05	109.71	109.99	110.26	110.53	110.81	111.64	115.59	116.85
2037	119.76	119.42	115.25	112.68	112.34	112.62	112.89	113.16	113.45	114.30	118.33	119.61
		100.00	44-00	44-04			44- 40	44	11000		400.0=	100.00

114.86 115.15 115.42 115.70

127.87 | 127.51 | 123.09 | 120.36 | 119.99 | 120.29 | 120.58 | 120.87 | 121.18 | 122.08 | 126.35 | 127.71

117.26 117.55 117.83 118.12 118.42

116.00

116.86

119.30

120.97

123.49

122.28

124.82

2038

2039

2040

122.43

124.98

122.09

124.63

117.83

120.29

115.21

117.62

PRICING OPTIONS FOR STANDARD PPA (Continued) Standard Fixed Price Option (Continued)

					T	ABLE 1b									
						ded Cost	s								
			Sta	andard Fi	ixed Price	Option	for Base	Load QF							
				0	ff-Peak F	orecast (	\$/MWH)								
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38			
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46			
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70			
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74			
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46			
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38			
2020	53.92	51.66	46.15	31.05	22.57	17.61	32.64	46.96	43.50	46.77	48.01	51.78			
2021	43.71	43.36	41.88	39.84	39.91	39.95	39.74	39.78	39.97	40.43	44.45	46.18			
2022	46.52	45.90	44.20	42.18	42.33	42.38	42.58	42.60	42.80	43.29	47.95	50.18			
2023	50.16	49.37	47.72	45.82	45.30	45.32	45.62	45.44	45.81	46.33	51.34	54.32			
2024	55.29	54.25	51.79	49.83	49.14	49.22	49.60	49.52	49.92	50.59	53.74	57.15			
2025	57.19	54.98	51.60	49.62	49.59	49.67	50.06	49.98	50.35	51.02	54.04	57.58			
2026	57.15	56.06	52.68	50.51	50.00	50.08	50.48	50.40	50.80	51.36	54.93	58.58			
2027	56.86	55.13	51.99	49.10	49.07	49.13	49.50	49.41	49.81	50.39	55.29	58.55			
2028	56.09	54.48	50.84	48.38	48.30	48.36	48.57	48.63	48.86	49.57	57.55	60.57			
2029	62.10	61.34	57.41	54.16	54.20	54.12	54.66	54.76	55.02	55.62	61.33	64.92			
2030	65.82	62.35	57.31	53.05	52.79	52.82	53.33	53.42	53.68	54.53	63.27	67.05			
2031	67.60	63.48	59.21	55.42	55.56	55.56	56.37	56.47	56.75	57.39	64.02	67.43			
2032	68.90	64.70	60.35	56.48	56.63	56.63	57.46	57.56	57.84	58.49	65.24	68.73			
2033	70.29	66.02	61.58	57.64	57.79	57.79	58.63	58.73	59.02	59.69	66.57	70.12			
2034	71.62	67.26	62.74	58.72	58.87	58.87	59.73	59.84	60.13	60.81	67.83	71.44			

TABLE 1b
Avoided Costs
Standard Fixed Price Option for Base Load QF
Off-Peak Forecast (\$/MWH)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2021	40.14	39.89	35.57	34.63	34.78	34.93	35.08	35.23	35.39	35.54	37.55	38.87
2022	40.62	40.79	39.46	37.50	37.28	37.35	37.52	37.68	37.85	38.49	41.22	42.36
2023	42.75	42.77	40.39	38.92	38.33	38.34	38.51	38.68	38.85	39.58	42.30	43.25
2024	44.40	43.85	42.14	40.39	39.59	39.25	39.42	39.59	39.77	41.03	43.30	44.26
2025	45.86	45.42	43.61	42.26	41.96	42.16	42.35	42.54	42.74	43.41	46.53	47.52
2026	51.31	51.54	50.79	49.19	48.95	49.19	49.41	49.65	49.89	50.69	54.00	54.64
2027	55.74	55.98	50.87	49.26	49.00	49.24	49.46	49.69	49.93	50.62	53.97	55.02
2028	55.58	55.83	51.18	49.58	49.32	49.56	49.78	50.01	50.25	50.96	54.47	55.54
2029	57.23	56.59	53.51	51.59	51.14	51.38	51.61	51.85	52.10	52.83	56.29	58.50
2030	58.68	58.33	53.77	51.92	51.63	51.88	52.12	52.36	52.61	53.35	56.87	60.20
2031	59.33	59.03	55.32	53.04	52.73	52.98	53.22	53.46	53.72	54.48	58.06	59.20
2032	60.50	60.19	56.41	54.08	53.76	54.02	54.26	54.51	54.77	55.54	59.20	60.36
2033	61.76	61.44	57.59	55.21	54.89	55.15	55.40	55.66	55.92	56.71	60.43	61.62
2034	62.95	62.62	58.69	56.27	55.94	56.21	56.46	56.72	56.99	57.80	61.59	62.80
2035	64.35	64.02	60.01	57.54	57.21	57.48	57.74	58.00	58.28	59.10	62.97	64.20
2036	65.90	65.57	61.48	58.96	58.62	58.90	59.16	59.43	59.72	60.55	64.50	65.76
2037	67.50	67.15	62.99	60.42	60.07	60.35	60.62	60.90	61.18	62.03	66.06	67.34
2038	69.14	68.79	64.54	61.92	61.56	61.85	62.12	62.41	62.70	63.57	67.67	68.98
2039	70.63	70.28	65.94	63.27	62.91	63.20	63.48	63.77	64.07	64.95	69.14	70.47
2040	72.44	72.08	67.66	64.94	64.57	64.87	65.16	65.45	65.75	66.65	70.93	72.28

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

					T	ABLE 2a						
						ided Cost						
						rice Option		nd QF				
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	44.43	53.18	44.93	26.68	27.18	27.33	41.83	51.08	46.68	43.18	44.93	50.68
2015	46.36	44.02	38.95	32.30	27.00	25.03	40.87	47.13	41.33	39.48	40.91	44.44
2016	45.93	43.62	38.61	32.04	26.81	24.86	40.50	46.69	40.96	39.13	40.54	44.03
2017	48.52	46.08	40.79	33.85	28.32	26.26	42.79	49.32	43.27	41.34	42.83	46.51
2018	52.38	49.75	44.05	36.58	30.62	28.41	46.21	53.25	46.73	44.65	46.26	50.22
2019	55.26	52.49	46.49	38.62	32.35	30.02	48.76	56.17	49.31	47.12	48.81	52.99
2020	56.97	54.12	47.94	39.84	33.38	30.98	50.28	57.91	50.85	48.59	50.33	54.63
2021	41.45	41.10	39.61	37.58	37.65	37.69	37.48	37.52	37.70	38.17	42.19	43.92
2022	44.22	43.60	41.90	39.88	40.03	40.08	40.28	40.29	40.49	40.99	45.65	47.87
2023	47.82	47.03	45.38	43.48	42.96	42.98	43.28	43.11	43.47	43.99	49.00	51.98
2024	52.90	51.85	49.40	47.44	46.75	46.83	47.21	47.13	47.53	48.19	51.35	54.75
2025	54.76	52.54	49.16	47.18	47.16	47.24	47.62	47.54	47.91	48.59	51.61	55.14
2026	54.66	53.58	50.20	48.02	47.52	47.60	47.99	47.91	48.32	48.87	52.44	56.10
2027	54.33	52.60	49.46	46.57	46.53	46.60	46.97	46.87	47.28	47.86	52.76	56.02
2028	53.51	51.90	48.26	45.80	45.72	45.78	45.99	46.05	46.28	46.99	54.97	57.99
2029	59.48	58.72	54.79	51.54	51.57	51.49	52.03	52.13	52.40	52.99	58.70	62.29
2030	63.14	59.67	54.62	50.37	50.11	50.13	50.64	50.74	51.00	51.85	60.59	64.36
2031	64.86	60.74	56.47	52.68	52.82	52.82	53.64	53.74	54.01	54.65	61.28	64.69
2032	66.10	61.90	57.55	53.69	53.83	53.83	54.66	54.76	55.04	55.69	62.45	65.93
2033	67.46	63.18	58.75	54.81	54.95	54.95	55.80	55.90	56.19	56.85	63.74	67.29
2034	68.73	64.37	59.85	55.83	55.98	55.98	56.84	56.95	57.24	57.92	64.94	68.55

	TABLE 2a													
					Avo	ided Cos	ts							
							on for Wi	ind QF						
				0	n-Peak F	orecast (	(\$/MWH)							
L.,														
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
2015	27.37	21.37	22.37	18.12	19.12	21.37	29.37	30.97	25.87	23.62	25.12	29.37		
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32.42	28.38	27.13	28.13	30.59		
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72		
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98		
2019	34.07	32.33	28.56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	34.73	37.74		
2020	36.21	34.36	30.37	28.53	27.62	25.35	36.82	42.47	37.23	35.61	36.91	40.10		
2021	37.82	37.58	33.25	32.31	32.46	32.62	32.76	32.91	33.07	33.22	35.23	36.56		
2022	38.26	38.43	37.10	35.14	34.92	34.99	35.15	35.32	35.49	36.13	38.86	40.00		
2023	40.34	40.37	37.98	36.52	35.92	35.93	36.10	36.27	36.45	37.18	39.89	40.84		
2024	41.93	41.38	39.67	37.92	37.12	36.78	36.95	37.12	37.30	38.56	40.83	41.79		
2025	43.34	42.91	41.10	39.75	39.45	39.65	39.83	40.03	40.23	40.90	44.02	45.01		
2026	48.75	48.97	48.22	46.63	46.39	46.63	46.85	47.08	47.32	48.12	51.44	52.08		
2027	53.13	53.37	48.25	46.65	46.39	46.63	46.85	47.08	47.32	48.01	51.36	52.41		
2028	52.92	53.17	48.52	46.92	46.66	46.90	47.12	47.35	47.59	48.30	51.81	52.88		
2029	54.52	53.88	50.79	48.87	48.42	48.66	48.90	49.14	49.38	50.11	53.58	55.79		
2030	55.92	55.57	51.00	49.16	48.87	49.12	49.36	49.60	49.85	50.59	54.11	57.44		
2031	56.52	56.21	52.51	50.22	49.91	50.16	50.40	50.65	50.90	51.66	55.24	56.38		

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PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

					T/	ABLE 2b						
					Avo	ded Cost	s					
					I Fixed P			nd QF				
				0	ff-Peak F	orecast (	\$/MWH)					
V	1 1	F-1.	84	A 1		l	1	A	0	0-1	NI	D
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	34.43	47.68	39.18	11.53	6.18	5.68	18.08	33.33	36.83	35.93	37.68	43.68
2015	39.42	37.64	33.22	20.08	12.92	8.57	20.35	32.82	30.41	33.72	34.67	37.69
2016	39.59	37.81	33.39	20.24	13.08	8.73	20.51	32.99	30.58	33.89	34.84	37.86
2017	41.65	39.78	35.13	21.30	13.76	9.18	21.58	34.70	32.17	35.65	36.65	39.83
2018	44.41	42.41	37.46	22.75	14.74	9.87	23.06	37.02	34.32	38.02	39.09	42.47
2019	47.37	45.25	39.99	24.33	15.80	10.62	24.65	39.51	36.64	40.58	41.72	45.31
2020	49.77	47.51	42.00	26.90	18.42	13.46	28.49	42.81	39.35	42.62	43.86	47.63
2021	39.48	39.13	37.65	35.61	35.68	35.72	35.51	35.55	35.74	36.20	40.22	41.95
2022	42.21	41.59	39.89	37.87	38.02	38.07	38.27	38.29	38.49	38.98	43.64	45.87
2023	45.77	44.98	43.33	41.43	40.91	40.93	41.23	41.05	41.42	41.94	46.95	49.93
2024	50.82	49.78	47.32	45.36	44.67	44.75	45.13	45.05	45.45	46.12	49.27	52.68
2025	52.63	50.42	47.04	45.06	45.03	45.11	45.50	45.42	45.79	46.46	49.48	53.02
2026	52.50	51.41	48.03	45.86	45.35	45.43	45.83	45.75	46.15	46.71	50.28	53.93
2027	52.12	50.39	47.25	44.36	44.33	44.39	44.76	44.67	45.07	45.65	50.55	53.81
2028	51.26	49.65	46.01	43.55	43.47	43.53	43.74	43.80	44.03	44.74	52.72	55.74
2029	57.18	56.42	52.49	49.24	49.28	49.20	49.74	49.84	50.10	50.70	56.41	60.00
2030	60.80	57.33	52.29	48.03	47.77	47.80	48.31	48.40	48.66	49.51	58.25	62.03
2031	62.48	58.36	54.09	50.30	50.44	50.44	51.25	51.35	51.63	52.27	58.90	62.31
2032	63.69	59.49	55.14	51.27	51.42	51.42	52.25	52.35	52.63	53.28	60.03	63.52
2033	64.98	60.71	56.27	52.33	52.48	52.48	53.32	53.42	53.71	54.38	61.26	64.81
2034	66.20	61.84	57.32	53.30	53.45	53.45	54.31	54.42	54.71	55.39	62.41	66.02

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					T	ABLE 2b									
						ided Cos									
	Standard Fixed Price Option for Wind QF														
	Off-Peak Forecast (\$/MWH)														
	Voor Jan Ech Mar Anr May Jun Jul Aug Son Oct Nov Do														
Year	Year Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Do														
<b>2015</b> 23.12 16.62 17.12 12.12 14.12 15.37 20.12 22.37 21.87 19.37 21.62 2															
<b>2016</b> 23.22 22.15 19.48 14.70 12.81 9.59 19.29 23.90 21.67 23.46 24.13 26															
<b>2017</b> 26.36 25.15 22.13 17.56 15.32 11.52 21.46 26.58 24.11 26.02 26.76 29															
<b>2018</b> 28.61 27.30 24.04 18.21 15.90 11.97 23.81 29.44 26.72 28.90 29.72 32.															
2019	30.35	28.97	25.52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29			
2020	32.76	31.27	27.57	20.93	18.31	13.84	27.30	33.70	30.60	33.09	34.02	36.99			
2021	35.91	35.66	31.34	30.40	30.55	30.70	30.85	31.00	31.16	31.31	33.32	34.64			
2022	36.31	36.48	35.15	33.19	32.97	33.04	33.21	33.37	33.54	34.18	36.91	38.05			
2023	38.35	38.37	35.99	34.52	33.93	33.94	34.11	34.28	34.45	35.18	37.90	38.85			
2024	39.91	39.36	37.65	35.90	35.10	34.76	34.93	35.10	35.28	36.54	38.81	39.77			
2025	41.28	40.84	39.03	37.68	37.38	37.58	37.77	37.96	38.16	38.83	41.95	42.94			
2026	46.64	46.87	46.12	44.52	44.28	44.52	44.74	44.98	45.22	46.02	49.33	49.97			
2027	50.98	51.22	46.11	44.50	44.24	44.48	44.70	44.93	45.17	45.86	49.21	50.26			
2028	50.73	50.98	46.33	44.73	44.47	44.71	44.93	45.16	45.40	46.11	49.62	50.69			
2029	52.28	51.64	48.56	46.64	46.19	46.43	46.66	46.90	47.15	47.88	51.34	53.55			

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## Portland General Electric Company

**Sheet No. 201-10** 

## **SCHEDULE 201 (Continued)**

					T	ABLE 3a								
						ided Cost								
						rice Optic		lar QF						
	On-Peak Forecast (\$/MWH)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38		
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21		
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87		
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42		
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21		
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06		
2020	61.12	58.27	52.09	43.99	37.53	35.13	54.43	62.06	55.00	52.74	54.48	58.78		
2021	45.68	45.33	43.84	41.81	41.88	41.92	41.71	41.75	41.93	42.40	46.42	48.15		
2022	48.53	47.91	46.21	44.19	44.34	44.39	44.59	44.60	44.80	45.30	49.96	52.18		
2023	52.21	51.42	49.77	47.87	47.35	47.37	47.67	47.50	47.86	48.38	53.39	56.37		
2024	57.37	56.32	53.87	51.91	51.22	51.30	51.68	51.60	52.00	52.66	55.82	59.22		
2025	59.32	57.10	53.72	51.74	51.72	51.80	52.18	52.10	52.47	53.15	56.17	59.70		
2026	59.31	58.23	54.85	52.67	52.17	52.25	52.64	52.56	52.97	53.52	57.09	60.75		
2027	59.07	57.34	54.20	51.31	51.27	51.34	51.71	51.61	52.02	52.60	57.50	60.76		
2028	58.34	56.73	53.09	50.63	50.55	50.61	50.82	50.88	51.11	51.82	59.80	62.82		
2029	64.40	63.64	59.71	56.46	56.49	56.41	56.95	57.05	57.32	57.91	63.62	67.21		
2030	68.16	64.69	59.64	55.39	55.13	55.15	55.66	55.76	56.02	56.87	65.61	69.38		
2031	69.98	65.86	61.59	57.80	57.94	57.94	58.76	58.86	59.13	59.77	66.40	69.81		
2032	71.31	67.11	62.76	58.90	59.04	59.04	59.87	59.97	60.25	60.90	67.66	71.14		
2033	72.77	68.49	64.06	60.12	60.26	60.26	61.11	61.21	61.50	62.16	69.05	72.60		
2034	74.15	69.79	65.27	61.25	61.40	61.40	62.26	62.37	62.66	63.34	70.36	73.97		

73.19

75.05

					T	ABLE 3a						
	•					ided Cost			•	•	•	
						rice Optic		lar QF				
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	42.05	41.81	37.48	36.54	36.69	36.85	36.99	37.14	37.30	37.45	39.46	40.79
2022	42.57	42.74	41.41	39.45	39.23	39.30	39.46	39.63	39.80	40.44	43.17	44.31
2023	44.74	44.77	42.38	40.92	40.32	40.33	40.50	40.67	40.85	41.58	44.29	45.24
2024	46.42	45.87	44.16	42.41	41.61	41.27	41.44	41.61	41.79	43.05	45.32	46.28
2025	47.92	47.49	45.68	44.33	44.03	44.23	44.41	44.61	44.81	45.48	48.60	49.59
2026	53.42	53.64	52.89	51.30	51.06	51.30	51.52	51.75	51.99	52.79	56.11	56.75
2027	57.89	58.13	53.01	51.41	51.15	51.39	51.61	51.84	52.08	52.77	56.12	57.17
2028	57.77	58.02	53.37	51.77	51.51	51.75	51.97	52.20	52.44	53.15	56.66	57.73
2029	59.47	58.83	55.74	53.82	53.37	53.61	53.85	54.09	54.33	55.06	58.53	60.74
2030	60.96	60.61	56.04	54.20	53.91	54.16	54.40	54.64	54.89	55.63	59.15	62.48
2031	61.66	61.35	57.65	55.36	55.05	55.30	55.54	55.79	56.04	56.80	60.38	61.52
2032	62.85	62.54	58.76	56.43	56.12	56.37	56.62	56.87	57.13	57.90	61.55	62.71
2033	64.18	63.86	60.01	57.63	57.31	57.57	57.82	58.07	58.34	59.13	62.85	64.04
2034	65.42	65.10	61.16	58.74	58.41	58.68	58.94	59.19	59.47	60.27	64.07	65.27
2035	66.86	66.53	62.52	60.05	59.72	59.99	60.25	60.51	60.79	61.61	65.48	66.72
2036	68.46	68.13	64.04	61.52	61.18	61.45	61.72	61.99	62.27	63.10	67.05	68.31
2037	70.11	69.77	65.60	63.03	62.68	62.97	63.23	63.51	63.80	64.65	68.68	69.96
2038	71.80	71.45	67.20	64.58	64.23	64.52	64.79	65.07	65.36	66.23	70.34	71.64
2222	70.05	70 00	00 00	0.00	05.00	0.00	00 00	00.40	20.70	07.07	74 00	70.40

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67.67

69.42

71.86

73.70

					T/	ABLE 3b						
						ded Cost						
						rice Optic		lar QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	53.92	51.66	46.15	31.05	22.57	17.61	32.64	46.96	43.50	46.77	48.01	51.78
2021	43.71	43.36	41.88	39.84	39.91	39.95	39.74	39.78	39.97	40.43	44.45	46.18
2022	46.52	45.90	44.20	42.18	42.33	42.38	42.58	42.60	42.80	43.29	47.95	50.18
2023	50.16	49.37	47.72	45.82	45.30	45.32	45.62	45.44	45.81	46.33	51.34	54.32
2024	55.29	54.25	51.79	49.83	49.14	49.22	49.60	49.52	49.92	50.59	53.74	57.15
2025	57.19	54.98	51.60	49.62	49.59	49.67	50.06	49.98	50.35	51.02	54.04	57.58
2026	57.15	56.06	52.68	50.51	50.00	50.08	50.48	50.40	50.80	51.36	54.93	58.58
2027	56.86	55.13	51.99	49.10	49.07	49.13	49.50	49.41	49.81	50.39	55.29	58.55
2028	56.09	54.48	50.84	48.38	48.30	48.36	48.57	48.63	48.86	49.57	57.55	60.57
2029	62.10	61.34	57.41	54.16	54.20	54.12	54.66	54.76	55.02	55.62	61.33	64.92
2030	65.82	62.35	57.31	53.05	52.79	52.82	53.33	53.42	53.68	54.53	63.27	67.05
2031	67.60	63.48	59.21	55.42	55.56	55.56	56.37	56.47	56.75	57.39	64.02	67.43
2032	68.90	64.70	60.35	56.48	56.63	56.63	57.46	57.56	57.84	58.49	65.24	68.73
2033	70.29	66.02	61.58	57.64	57.79	57.79	58.63	58.73	59.02	59.69	66.57	70.12
2034	71.62	67.26	62.74	58.72	58.87	58.87	59.73	59.84	60.13	60.81	67.83	71.44

TABLE 3b	
Avoided Costs	
Standard Fixed Price Option for Solar QF	
Off-Peak Forecast (\$/MWH)	

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.45	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2020	40.14	39.89	35.57	34.63	34.78	34.93	35.08	35.23	35.39	35.54	37.55	38.87
2022	40.14	40.79	39.46	37.50	37.28	37.35	37.52	37.68	37.85	38.49	41.22	42.36
2022	42.75	42.77	40.39	38.92	38.33	38.34	38.51	38.68	38.85	39.58	42.30	43.25
2024	44.40	43.85	42.14	40.39	39.59	39.25	39.42	39.59	39.77	41.03	43.30	44.26
2025	45.86	45.42	43.61	42.26	41.96	42.16	42.35	42.54	42.74	43.41	46.53	47.52
2026	51.31	51.54	50.79	49.19	48.95	49.19	49.41	49.65	49.89	50.69	54.00	54.64
2027	55.74	55.98	50.87	49.26	49.00	49.24	49.46	49.69	49.93	50.62	53.97	55.02
2028	55.58	55.83	51.18	49.58	49.32	49.56	49.78	50.01	50.25	50.96	54.47	55.54
2029	57.23	56.59	53.51	51.59	51.14	51.38	51.61	51.85	52.10	52.83	56.29	58.50
2030	58.68	58.33	53.77	51.92	51.63	51.88	52.12	52.36	52.61	53.35	56.87	60.20
2031	59.33	59.03	55.32	53.04	52.73	52.98	53.22	53.46	53.72	54.48	58.06	59.20
2032	60.50	60.19	56.41	54.08	53.76	54.02	54.26	54.51	54.77	55.54	59.20	60.36
2033	61.76	61.44	57.59	55.21	54.89	55.15	55.40	55.66	55.92	56.71	60.43	61.62
2034	62.95	62.62	58.69	56.27	55.94	56.21	56.46	56.72	56.99	57.80	61.59	62.80
2035	64.35	64.02	60.01	57.54	57.21	57.48	57.74	58.00	58.28	59.10	62.97	64.20
2036	65.90	65.57	61.48	58.96	58.62	58.90	59.16	59.43	59.72	60.55	64.50	65.76
2037	67.50	67.15	62.99	60.42	60.07	60.35	60.62	60.90	61.18	62.03	66.06	67.34
2038	69.14	68.79	64.54	61.92	61.56	61.85	62.12	62.41	62.70	63.57	67.67	68.98
2039	70.63	70.28	65.94	63.27	62.91	63.20	63.48	63.77	64.07	64.95	69.14	70.47
2039	70.63	72.08	67.66	64.94	64.57	64.87		65.45	65.75	66.65		
2040	12.44	12.08	07.00	64.94	04.57	04.87	65.16	05.45	05.75	60.00	70.93	72.28

PRICING OPTIONS FOR STANDARD PPA (Continued)

#### 2) Renewable Fixed Price Option

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company during the Renewable Resource Deficiency Period.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15.

	TABLE 4a  Renewable Avoided Costs													
			Rer					Load Q	F					
				0	n-Peak F	orecast (	\$/MWH)							
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38		
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21		
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87		
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42		
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21		
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06		
2020	130.42	130.40	129.50	130.04	133.82	132.76	132.39	132.24	130.72	129.58	130.57	129.37		
2021	133.36	133.64	131.86	133.13	136.49	135.59	134.91	135.51	133.73	132.54	134.08	132.51		
2022	136.24	136.10	133.85	135.90	139.41	138.20	137.67	137.62	136.32	135.14	136.83	135.12		
2023	139.39	138.88	136.54	138.99	141.88	141.01	140.60	140.17	139.18	137.81	139.83	138.52		
2024	141.20	141.38	139.07	141.45	144.67	143.46	143.33	143.02	142.81	139.99	141.17	141.32		
2025	144.44	144.83	142.24	145.02	149.08	147.69	146.57	146.72	145.76	143.11	144.48	144.07		
2026	148.08	147.69	145.96	148.54	153.80	149.69	149.69	150.17	149.84	146.23	148.39	147.27		
2027	150.98	150.46	148.51	151.01	158.07	152.64	152.20	153.90	152.54	149.20	150.73	150.17		
2028	153.78	152.55	150.16	154.12	160.66	154.93	155.77	155.78	154.75	152.38	153.65	152.73		
2029	157.02	156.74	153.60	157.59	169.40	159.30	159.39	159.39	159.45	155.48	156.44	156.31		
2030	160.28	159.94	157.24	160.66	173.84	164.43	161.89	161.75	163.38	158.51	159.18	159.23		
2031	163.23	162.64	160.72	164.67	177.15	169.11	164.90	166.01	166.26	161.75	163.06	162.54		
2032	165.75	165.16	163.21	167.22	179.91	171.73	167.46	168.59	168.84	164.26	165.59	165.06		
2033	169.59	168.98	166.98	171.09	184.06	175.70	171.33	172.48	172.74	168.06	169.41	168.88		
2034	173.01	172.39	170.36	174.55	187.76	179.24	174.79	175.97	176.23	171.46	172.84	172.29		

# TABLE 4a Renewable Avoided Costs Renewable Fixed Price Option for Base Load QF On-Peak Forecast (\$/MWH)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	125.74	126.53	125.41	127.03	140.05	145.57	127.38	130.51	126.75	126.47	126.82	126.50
2021	128.18	129.01	128.18	130.15	141.81	147.45	129.70	133.53	129.93	129.92	129.25	129.25
2022	130.93	131.03	130.40	132.22	146.90	151.40	130.33	135.07	131.40	132.68	131.64	131.28
2023	133.78	133.52	132.29	134.63	149.40	154.53	133.27	136.99	134.07	135.33	134.05	134.61
2024	135.86	136.38	135.36	136.28	146.93	155.96	135.98	140.58	138.31	137.11	136.55	136.70
2025	138.62	138.64	137.83	139.58	150.44	158.68	138.76	145.07	140.30	139.79	139.31	139.77
2026	140.87	141.39	139.68	141.34	152.50	159.44	142.48	146.95	142.42	141.35	141.73	141.93
2027	143.35	143.68	141.92	144.13	156.12	161.22	143.98	150.23	144.81	144.21	143.23	143.91
2028	145.59	145.24	143.77	146.24	154.86	164.58	146.34	151.58	146.46	147.03	145.51	146.47
2029	148.52	148.11	146.70	148.71	156.81	166.96	149.67	154.97	151.19	148.80	148.14	148.56
2030	150.70	150.10	149.63	151.33	158.53	171.27	151.96	157.20	152.65	150.63	150.43	151.36
2031	153.13	152.24	151.91	153.77	160.72	172.88	154.08	160.45	154.91	153.55	152.94	154.66
2032	155.39	155.13	153.42	156.21	163.63	173.43	156.94	163.70	156.96	155.52	155.35	156.18
2033	159.11	157.29	156.26	159.12	166.65	175.17	159.51	166.08	159.59	158.06	158.73	159.11
2034	162.00	160.14	158.93	162.71	168.39	179.93	162.85	168.61	162.36	161.53	161.50	162.49
2035	165.29	162.52	161.82	165.46	170.12	180.84	166.22	172.80	165.75	163.86	164.19	165.36
2036	167.06	164.63	164.72	168.74	172.98	183.24	169.29	177.62	168.66	165.76	166.45	167.44
2037	169.87	168.42	167.79	172.22	176.16	185.49	173.84	181.72	173.07	168.66	170.66	170.35
2038	173.31	171.82	170.94	175.63	180.61	188.47	176.69	185.88	174.80	172.08	173.45	173.29
2039	176.00	174.40	173.68	177.96	184.42	192.12	178.50	185.19	176.58	175.25	176.42	176.04
2040	178.64	177.31	176.42	181.75	186.84	195.04	182.42	188.36	179.69	178.02	179.69	179.60

					T/	ABLE 4b									
				R	enewabl	e Avoide	Costs								
			Ren	ewable F	ixed Pric	e Option	for Base	Load QI	=						
	Off-Peak Forecast (\$/MWH)														
	Year lan Feh Mar Anr May lun lul Aug Sen Oct Nov I														
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38			
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46			
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70			
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74			
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46			
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38			
2020	74.05	74.35	76.18	74.70	70.70	70.98	71.32	72.70	73.76	75.21	74.98	75.50			
2021	76.61	75.69	77.70	76.08	72.65	72.71	73.48	73.88	75.25	77.66	74.78	76.80			
2022	77.70	77.31	79.96	77.27	73.68	74.12	75.90	74.74	76.69	79.10	76.00	78.21			
2023	78.70	78.76	81.53	79.38	74.14	75.53	77.17	76.51	78.04	80.71	77.14	79.80			
2024	79.35	79.42	83.14	79.16	74.55	77.78	76.40	76.83	78.61	81.03	79.55	80.29			
2025	80.96	80.94	84.88	80.33	74.54	78.20	78.02	79.19	79.32	82.81	82.21	81.48			
2026	81.35	82.42	85.28	80.89	75.34	79.31	79.11	79.94	79.12	83.91	82.41	82.47			
2027	84.14	84.11	86.28	82.99	75.15	80.77	81.16	80.43	80.90	86.39	83.38	83.99			
2028	85.29	86.01	88.97	85.07	74.43	82.57	82.76	81.19	82.83	87.06	84.33	86.62			
2029	85.87	86.84	90.61	86.72	68.73	82.93	84.21	82.59	84.39	88.00	86.85	88.12			
2030	87.21	88.28	92.46	86.89	68.43	83.64	84.98	85.17	84.95	89.66	88.91	89.94			
2031	89.10	90.50	93.69	87.32	69.81	83.38	86.78	86.97	85.14	91.14	90.93	90.04			
2032	90.57	92.00	95.23	88.76	70.97	84.75	88.21	88.41	86.54	92.64	92.44	91.53			
2033	92.57	94.03	97.34	90.72	72.53	86.63	90.16	90.36	88.46	94.69	94.48	93.55			
2034	94.36	95.84	99.22	92.47	73.93	88.30	91.90	92.10	90.16	96.52	96.30	95.36			

TABLE 4b
Renewable Avoided Costs
Renewable Fixed Price Option for Base Load QF
Off-Peak Forecast (\$/MWH)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	68.58	67.81	70.03	66.95	51.47	41.59	66.31	63.57	67.34	67.56	68.43	67.52
2021	71.70	70.03	70.67	68.13	54.41	44.45	68.58	64.91	68.43	69.50	69.36	69.20
2022	72.83	72.10	72.50	70.14	52.58	43.90	73.59	66.03	71.26	70.61	70.94	71.27
2023	74.08	73.80	75.03	73.19	51.34	44.74	74.72	68.53	72.72	72.11	72.75	73.03
2024	74.27	73.88	76.02	73.85	58.94	50.44	74.10	67.73	72.49	72.53	73.47	74.32
2025	76.37	76.84	78.49	75.22	60.00	52.58	76.18	69.30	74.23	74.75	76.80	74.78
2026	78.55	78.33	81.13	78.05	64.87	53.28	76.32	71.90	76.57	77.89	78.72	77.07
2027	81.57	80.52	82.48	79.59	65.36	56.20	79.64	72.83	78.65	80.47	80.82	79.73
2028	83.33	83.05	84.80	82.68	69.45	56.44	82.37	73.98	81.24	81.50	82.54	82.21
2029	84.45	85.45	86.98	85.41	72.98	59.37	84.03	75.52	82.32	84.06	85.12	85.43
2030	87.14	88.37	89.47	86.42	76.31	62.56	85.40	78.15	85.83	87.25	87.66	87.28
2031	89.62	91.21	92.09	88.87	79.11	66.01	88.30	81.26	87.31	89.03	90.93	87.50
2032	91.36	92.90	94.09	90.37	81.83	66.80	89.22	81.75	89.34	92.12	91.54	90.26
2033	94.30	96.19	97.29	93.45	84.73	71.50	93.78	83.69	92.81	95.63	94.00	93.33
2034	96.65	98.62	99.97	95.91	86.88	71.32	95.58	86.58	95.37	97.26	96.55	96.04
2035	97.26	101.39	102.07	98.18	90.58	76.12	97.06	86.87	97.82	99.24	98.90	98.15
2036	100.30	103.84	104.15	98.13	92.11	81.09	97.21	87.79	98.23	102.10	102.08	99.77
2037	103.90	106.19	107.32	100.80	96.72	82.63	98.42	89.65	99.63	105.58	103.83	103.24
2038	106.63	108.17	109.11	102.76	97.37	85.19	101.14	90.69	103.90	108.20	105.75	105.85
2039	109.65	111.37	112.13	106.34	98.97	86.96	106.48	96.20	108.22	110.60	108.44	108.86
2040	112.13	113.43	114.50	108.34	100.07	89.08	107.33	97.98	110.92	112.29	110.09	110.91

	TABLE 5a Renewable Avoided Costs													
				F			d Costs							
			ı	Renewab	le Fixed F	Price Opt	ion for W	ind QF						
						orecast (								
Year														
2014	44.43	53.18	44.93	26.68	27.18	27.33	41.83	51.08	46.68	43.18	44.93	50.68		
2015	46.36	44.02	38.95	32.30	27.00	25.03	40.87	47.13	41.33	39.48	40.91	44.44		
2016	45.93	43.62	38.61	32.04	26.81	24.86	40.50	46.69	40.96	39.13	40.54	44.03		
2017														
2018														
2019														
2020														
2021	91.73	92.00	90.23	91.50	94.85	93.96	93.28	93.88	92.10	90.91	92.44	90.88		
2022	93.81	93.66	91.42	93.47	96.98	95.77	95.23	95.19	93.89	92.71	94.39	92.68		
2023	96.01	95.50	93.17	95.61	98.50	97.64	97.23	96.79	95.80	94.43	96.45	95.15		
2024	97.25	97.43	95.12	97.50	100.71	99.51	99.38	99.07	98.85	96.03	97.21	97.37		
2025	99.51	99.89	97.31	100.08	104.15	102.76	101.63	101.79	100.82	98.17	99.55	99.13		
2026	102.27	101.88	100.16	102.74	108.00	103.89	103.89	104.37	104.03	100.42	102.58	101.47		
2027	104.29	103.77	101.82	104.32	111.38	105.95	105.51	107.22	105.85	102.51	104.04	103.48		
2028	106.19	104.96	102.57	106.53	113.07	107.34	108.18	108.19	107.16	104.79	106.06	105.14		
2029	108.51	108.23	105.09	109.08	120.90	110.80	110.89	110.89	110.94	106.98	107.94	107.81		
2030	110.84	110.49	107.80	111.21	124.40	114.99	112.45	112.31	113.94	109.07	109.73	109.79		
2031	112.82	112.24	110.32	114.27	126.75	118.70	114.50	115.61	115.86	111.35	112.66	112.14		
2032	114.68	114.08	112.13	116.15	128.84	120.66	116.38	117.51	117.77	113.18	114.51	113.99		
2033	117.23	116.62	114.62	118.73	131.70	123.34	118.97	120.13	120.39	115.70	117.06	116.52		
2034	119.48	118.86	116.83	121.02	134.24	125.71	121.26	122.44	122.70	117.93	119.31	118.76		

TABLE 5a
Renewable Avoided Costs
Renewable Fixed Price Option for Wind QF
On-Peak Forecast (\$/MWH)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.37	21.37	22.37	18.12	19.12	21.37	29.37	30.97	25.87	23.62	25.12	29.37
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32.42	28.38	27.13	28.13	30.59
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98
2019	34.07	32.33	28.56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	34.73	37.74
2020	85.86	86.65	85.54	87.16	100.18	105.69	87.50	90.64	86.87	86.60	86.95	86.62
2021	87.40	88.23	87.41	89.37	101.03	106.68	88.92	92.76	89.15	89.14	88.47	88.47
2022	89.35	89.45	88.82	90.65	105.32	109.82	88.76	93.49	89.83	91.11	90.06	89.71
2023	91.25	91.00	89.77	92.10	106.88	112.00	90.75	94.46	91.55	92.81	91.53	92.08
2024	92.74	93.26	92.24	93.16	103.81	112.84	92.86	97.46	95.19	93.99	93.43	93.58
2025	94.53	94.55	93.74	95.49	106.35	114.59	94.67	100.98	96.21	95.70	95.22	95.68
2026	95.91	96.43	94.72	96.38	107.54	114.49	97.52	101.99	97.46	96.39	96.77	96.97
2027	97.49	97.83	96.07	98.27	110.27	115.36	98.12	104.38	98.96	98.36	97.37	98.06
2028	98.83	98.49	97.01	99.48	108.10	117.82	99.59	104.83	99.70	100.27	98.75	99.71
2029	100.84	100.43	99.01	101.03	109.12	119.27	101.99	107.29	103.51	101.12	100.45	100.88
2030	102.09	101.49	101.02	102.72	109.91	122.66	103.35	108.59	104.04	102.01	101.81	102.75
2031	103.55	102.66	102.33	104.19	111.14	123.30	104.50	110.88	105.33	103.98	103.36	105.08
2032	105.12	104.87	103.15	105.94	113.37	123.17	106.67	113.43	106.70	105.25	105.09	105.92
2033	107.55	105.73	104.70	107.57	115.10	123.61	107.96	114.52	108.04	106.50	107.17	107.56
2034	109.28	107.42	106.21	109.99	115.67	127.21	110.13	115.89	109.64	108.81	108.77	109.77
2035	111.68	108.91	108.21	111.85	116.51	127.23	112.61	119.19	112.14	110.25	110.58	111.75
2036	112.55	110.12	110.20	114.23	118.47	128.73	114.78	123.11	114.15	111.25	111.94	112.93
2037	114.13	112.67	112.05	116.48	120.41	129.75	118.09	125.98	117.33	112.92	114.91	114.61
2038	116.47	114.98	114.10	118.79	123.77	131.63	119.85	129.04	117.96	115.24	116.60	116.45
2039	118.03	116.44	115.72	119.99	126.46	134.15	120.53	127.22	118.62	117.28	118.45	118.07
2040	119.52	118.20	117.31	122.64	127.73	135.93	123.31	129.24	120.58	118.91	120.58	120.48

						ABLE 5b						
	Renewable Avoided Costs  Renewable Fixed Price Option for Wind QF											
	Off-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	34.43	47.68	39.18	11.53	6.18	5.68	18.08	33.33	36.83	35.93	37.68	43.68
2015	39.42	37.64	33.22	20.08	12.92	8.57	20.35	32.82	30.41	33.72	34.67	37.69
2016	39.59	37.81	33.39	20.24	13.08	8.73	20.51	32.99	30.58	33.89	34.84	37.86
2017	41.65	39.78	35.13	21.30	13.76	9.18	21.58	34.70	32.17	35.65	36.65	39.83
2018	44.41	42.41	37.46	22.75	14.74	9.87	23.06	37.02	34.32	38.02	39.09	42.47
2019	47.37	45.25	39.99	24.33	15.80	10.62	24.65	39.51	36.64	40.58	41.72	45.31
2020	69.90	70.20	72.03	70.55	66.55	66.83	67.17	68.55	69.61	71.06	70.83	71.35
2021	72.38	71.46	73.47	71.85	68.42	68.48	69.25	69.65	71.02	73.43	70.55	72.57
2022	73.39	73.00	75.65	72.96	69.37	69.81	71.59	70.43	72.38	74.79	71.69	73.90
2023	74.31	74.37	77.14	74.99	69.75	71.14	72.78	72.12	73.65	76.32	72.75	75.41
2024	74.88	74.95	78.67	74.69	70.08	73.31	71.93	72.36	74.14	76.56	75.08	75.82
2025	76.40	76.38	80.32	75.77	69.98	73.64	73.46	74.63	74.76	78.25	77.65	76.92
2026	76.70	77.77	80.63	76.24	70.69	74.66	74.46	75.29	74.47	79.26	77.76	77.82
2027	79.40	79.37	81.54	78.25	70.41	76.03	76.42	75.69	76.16	81.65	78.64	79.25
2028	80.46	81.18	84.14	80.24	69.60	77.74	77.93	76.36	78.00	82.23	79.50	81.79
2029	80.95	81.92	85.69	81.80	63.81	78.01	79.29	77.67	79.47	83.08	81.93	83.20
2030	82.19	83.26	87.44	81.87	63.41	78.62	79.96	80.15	79.93	84.64	83.89	84.92
2031	83.98	85.38	88.57	82.20	64.69	78.26	81.66	81.85	80.02	86.02	85.81	84.92
2032	85.36	86.79	90.02	83.55	65.76	79.54	83.00	83.20	81.33	87.43	87.23	86.32
2033	87.26	88.72	92.03	85.41	67.22	81.32	84.85	85.05	83.15	89.38	89.17	88.24
2034	88.94	90.42	93.80	87.05	68.51	82.88	86.48	86.68	84.74	91.10	90.88	89.94

TABLE 5b
Renewable Avoided Costs
Renewable Fixed Price Option for Wind QF
Off-Peak Forecast (\$/MWH)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	23.12	16.62	17.12	12.12	14.12	15.37	20.12	22.37	21.87	19.37	21.62	24.62
2016	23.22	22.15	19.48	14.70	12.81	9.59	19.29	23.90	21.67	23.46	24.13	26.27
2017	26.36	25.15	22.13	17.56	15.32	11.52	21.46	26.58	24.11	26.02	26.76	29.12
2018	28.61	27.30	24.04	18.21	15.90	11.97	23.81	29.44	26.72	28.90	29.72	32.33
2019	30.35	28.97	25.52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29
2020	64.43	63.66	65.88	62.80	47.32	37.44	62.16	59.42	63.19	63.41	64.28	63.37
2021	67.47	65.80	66.44	63.90	50.18	40.22	64.35	60.68	64.20	65.27	65.13	64.97
2022	68.52	67.79	68.19	65.83	48.27	39.59	69.28	61.72	66.95	66.30	66.63	66.96
2023	69.68	69.40	70.63	68.79	46.94	40.34	70.32	64.13	68.32	67.71	68.35	68.63
2024	69.78	69.39	71.53	69.36	54.45	45.95	69.61	63.24	68.00	68.04	68.98	69.83
2025	71.80	72.27	73.92	70.65	55.43	48.01	71.61	64.73	69.66	70.18	72.23	70.21
2026	73.89	73.67	76.47	73.39	60.21	48.62	71.66	67.24	71.91	73.23	74.06	72.41
2027	76.81	75.76	77.72	74.83	60.60	51.44	74.88	68.07	73.89	75.71	76.06	74.97
2028	78.48	78.20	79.95	77.83	64.60	51.59	77.52	69.13	76.39	76.65	77.69	77.36
2029	79.50	80.50	82.03	80.46	68.03	54.42	79.08	70.57	77.37	79.11	80.17	80.48
2030	82.10	83.33	84.43	81.38	71.27	57.52	80.36	73.11	80.79	82.21	82.62	82.24
2031	84.48	86.07	86.95	83.73	73.97	60.87	83.16	76.12	82.17	83.89	85.79	82.36
2032	86.12	87.66	88.85	85.13	76.59	61.56	83.98	76.51	84.10	86.88	86.30	85.02
2033	88.95	90.84	91.94	88.10	79.38	66.15	88.43	78.34	87.46	90.28	88.65	87.98
2034	91.20	93.17	94.52	90.46	81.43	65.87	90.13	81.13	89.92	91.81	91.10	90.59
2035	91.70	95.83	96.51	92.62	85.02	70.56	91.50	81.31	92.26	93.68	93.34	92.59
2036	94.63	98.17	98.48	92.46	86.44	75.42	91.54	82.12	92.56	96.43	96.41	94.10
2037	98.12	100.41	101.54	95.02	90.94	76.85	92.64	83.87	93.85	99.80	98.05	97.46
2038	100.74	102.28	103.22	96.87	91.48	79.30	95.25	84.80	98.01	102.31	99.86	99.96
2039	103.64	105.36	106.12	100.33	92.96	80.95	100.47	90.19	102.21	104.59	102.43	102.85
2040	106.00	107.30	108.37	102.21	93.94	82.95	101.20	91.85	104.79	106.16	103.96	104.78

	TABLE 6a											
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Solar QF											
	On-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	48.13	56.88	48.63	30.38	30.88	31.03	45.53	54.78	50.38	46.88	48.63	54.38
2015	50.13	47.79	42.72	36.07	30.77	28.80	44.64	50.90	45.10	43.25	44.68	48.21
2016	49.77	47.46	42.45	35.88	30.65	28.70	44.34	50.53	44.80	42.97	44.38	47.87
2017	52.43	49.99	44.70	37.76	32.23	30.17	46.70	53.23	47.18	45.25	46.74	50.42
2018	56.37	53.74	48.04	40.57	34.61	32.40	50.20	57.24	50.72	48.64	50.25	54.21
2019	59.33	56.56	50.56	42.69	36.42	34.09	52.83	60.24	53.38	51.19	52.88	57.06
2020	97.99	97.97	97.07	97.61	101.39	100.33	99.96	99.82	98.30	97.15	98.14	96.94
2021	100.19	100.46	98.69	99.96	103.31	102.42	101.74	102.34	100.56	99.37	100.90	99.34
2022	102.43	102.28	100.04	102.09	105.60	104.39	103.85	103.81	102.51	101.33	103.01	101.30
2023	104.79	104.28	101.95	104.39	107.28	106.42	106.01	105.57	104.58	103.21	105.23	103.93
2024	106.19	106.37	104.06	106.44	109.65	108.45	108.32	108.01	107.79	104.97	106.15	106.31
2025	108.63	109.01	106.43	109.20	113.27	111.88	110.75	110.91	109.94	107.29	108.67	108.25
2026	111.57	111.18	109.46	112.04	117.30	113.19	113.19	113.67	113.33	109.72	111.88	110.77
2027	113.77	113.25	111.30	113.80	120.86	115.43	114.99	116.70	115.33	111.99	113.52	112.96
2028	115.85	114.62	112.23	116.19	122.73	117.00	117.84	117.85	116.82	114.45	115.72	114.80
2029	118.35	118.07	114.93	118.92	130.74	120.64	120.73	120.73	120.78	116.82	117.78	117.65
2030	120.88	120.53	117.84	121.25	134.44	125.03	122.49	122.35	123.98	119.11	119.77	119.83
2031	123.06	122.48	120.56	124.51	136.99	128.94	124.74	125.85	126.10	121.59	122.90	122.38
2032	125.10	124.50	122.55	126.57	139.26	131.08	126.80	127.93	128.19	123.60	124.93	124.41
2033	127.85	127.24	125.24	129.35	142.32	133.96	129.59	130.75	131.01	126.32	127.68	127.14
2034	130.32	129.70	127.67	131.86	145.08	136.55	132.10	133.28	133.54	128.77	130.15	129.60

TABLE 6a
Renewable Avoided Costs
Renewable Fixed Price Option for Solar QF
On-Peak Forecast (\$/MWH)

L.,												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	90.01	90.80	89.69	91.31	104.33	109.84	91.65	94.79	91.02	90.75	91.10	90.77
2021	91.63	92.46	91.64	93.60	105.26	110.91	93.15	96.99	93.38	93.37	92.70	92.70
2022	93.66	93.76	93.13	94.96	109.63	114.13	93.07	97.80	94.14	95.42	94.37	94.02
2023	95.65	95.40	94.17	96.50	111.28	116.40	95.15	98.86	95.95	97.21	95.93	96.48
2024	97.23	97.75	96.73	97.65	108.30	117.33	97.35	101.95	99.68	98.48	97.92	98.07
2025	99.10	99.12	98.31	100.06	110.92	119.16	99.24	105.55	100.78	100.27	99.79	100.25
2026	100.57	101.09	99.38	101.04	112.20	119.15	102.18	106.65	102.12	101.05	101.43	101.63
2027	102.25	102.59	100.83	103.03	115.03	120.12	102.88	109.14	103.72	103.12	102.13	102.82
2028	103.68	103.34	101.86	104.33	112.95	122.67	104.44	109.68	104.55	105.12	103.60	104.56
2029	105.79	105.38	103.96	105.98	114.07	124.22	106.94	112.24	108.46	106.07	105.40	105.83
2030	107.13	106.53	106.06	107.76	114.95	127.70	108.39	113.63	109.08	107.05	106.85	107.79
2031	108.69	107.80	107.47	109.33	116.28	128.44	109.64	116.02	110.47	109.12	108.50	110.22
2032	110.36	110.11	108.39	111.18	118.61	128.41	111.91	118.67	111.94	110.49	110.33	111.16
2033	112.90	111.08	110.05	112.92	120.45	128.96	113.31	119.87	113.39	111.85	112.52	112.91
2034	114.73	112.87	111.66	115.44	121.12	132.66	115.58	121.34	115.09	114.26	114.22	115.22
2035	117.24	114.47	113.77	117.41	122.07	132.79	118.17	124.75	117.70	115.81	116.14	117.31
2036	118.22	115.79	115.87	119.90	124.14	134.40	120.45	128.78	119.82	116.92	117.61	118.60
2037	119.91	118.45	117.83	122.26	126.19	135.53	123.87	131.76	123.11	118.70	120.69	120.39
2038	122.36	120.87	119.99	124.68	129.66	137.52	125.74	134.93	123.85	121.13	122.49	122.34
2039	124.04	122.45	121.73	126.00	132.47	140.16	126.54	133.23	124.63	123.29	124.46	124.08
2040	125.65	124.33	123.44	128.77	133.86	142.06	129.44	135.37	126.71	125.04	126.71	126.61

					т	ABLE 6b						
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Solar QF											
	Off-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	38.13	51.38	42.88	15.23	9.88	9.38	21.78	37.03	40.53	39.63	41.38	47.38
2015	43.19	41.41	36.99	23.85	16.69	12.34	24.12	36.59	34.18	37.49	38.44	41.46
2016	43.43	41.65	37.23	24.08	16.92	12.57	24.35	36.83	34.42	37.73	38.68	41.70
2017	45.56	43.69	39.04	25.21	17.67	13.09	25.49	38.61	36.08	39.56	40.56	43.74
2018	48.40	46.40	41.45	26.74	18.73	13.86	27.05	41.01	38.31	42.01	43.08	46.46
2019	51.44	49.32	44.06	28.40	19.87	14.69	28.72	43.58	40.71	44.65	45.79	49.38
2020	78.20	78.50	80.33	78.85	74.85	75.13	75.47	76.85	77.91	79.36	79.13	79.65
2021	80.84	79.92	81.93	80.31	76.88	76.94	77.71	78.11	79.48	81.89	79.01	81.03
2022	82.01	81.62	84.27	81.58	77.99	78.43	80.21	79.05	81.00	83.41	80.31	82.52
2023	83.09	83.15	85.92	83.77	78.53	79.92	81.56	80.90	82.43	85.10	81.53	84.19
2024	83.82	83.89	87.61	83.63	79.02	82.25	80.87	81.30	83.08	85.50	84.02	84.76
2025	85.52	85.50	89.44	84.89	79.10	82.76	82.58	83.75	83.88	87.37	86.77	86.04
2026	86.00	87.07	89.93	85.54	79.99	83.96	83.76	84.59	83.77	88.56	87.06	87.12
2027	88.88	88.85	91.02	87.73	79.89	85.51	85.90	85.17	85.64	91.13	88.12	88.73
2028	90.12	90.84	93.80	89.90	79.26	87.40	87.59	86.02	87.66	91.89	89.16	91.45
2029	90.79	91.76	95.53	91.64	73.65	87.85	89.13	87.51	89.31	92.92	91.77	93.04
2030	92.23	93.30	97.48	91.91	73.45	88.66	90.00	90.19	89.97	94.68	93.93	94.96
2031	94.22	95.62	98.81	92.44	74.93	88.50	91.90	92.09	90.26	96.26	96.05	95.16
2032	95.78	97.21	100.44	93.97	76.18	89.96	93.42	93.62	91.75	97.85	97.65	96.74
2033	97.88	99.34	102.65	96.03	77.84	91.94	95.47	95.67	93.77	100.00	99.79	98.86
2034	99.78	101.26	104.64	97.89	79.35	93.72	97.32	97.52	95.58	101.94	101.72	100.78

TABLE 6b
Renewable Avoided Costs
Renewable Fixed Price Option for Solar QF
Off-Peak Forecast (\$/MWH)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	68.58	67.81	70.03	66.95	51.47	41.59	66.31	63.57	67.34	67.56	68.43	67.52
2021	71.70	70.03	70.67	68.13	54.41	44.45	68.58	64.91	68.43	69.50	69.36	69.20
2022	72.83	72.10	72.50	70.14	52.58	43.90	73.59	66.03	71.26	70.61	70.94	71.27
2023	74.08	73.80	75.03	73.19	51.34	44.74	74.72	68.53	72.72	72.11	72.75	73.03
2024	74.27	73.88	76.02	73.85	58.94	50.44	74.10	67.73	72.49	72.53	73.47	74.32
2025	76.37	76.84	78.49	75.22	60.00	52.58	76.18	69.30	74.23	74.75	76.80	74.78
2026	78.55	78.33	81.13	78.05	64.87	53.28	76.32	71.90	76.57	77.89	78.72	77.07
2027	81.57	80.52	82.48	79.59	65.36	56.20	79.64	72.83	78.65	80.47	80.82	79.73
2028	83.33	83.05	84.80	82.68	69.45	56.44	82.37	73.98	81.24	81.50	82.54	82.21
2029	84.45	85.45	86.98	85.41	72.98	59.37	84.03	75.52	82.32	84.06	85.12	85.43
2030	87.14	88.37	89.47	86.42	76.31	62.56	85.40	78.15	85.83	87.25	87.66	87.28
2031	89.62	91.21	92.09	88.87	79.11	66.01	88.30	81.26	87.31	89.03	90.93	87.50
2032	91.36	92.90	94.09	90.37	81.83	66.80	89.22	81.75	89.34	92.12	91.54	90.26
2033	94.30	96.19	97.29	93.45	84.73	71.50	93.78	83.69	92.81	95.63	94.00	93.33
2034	96.65	98.62	99.97	95.91	86.88	71.32	95.58	86.58	95.37	97.26	96.55	96.04
2035	97.26	101.39	102.07	98.18	90.58	76.12	97.06	86.87	97.82	99.24	98.90	98.15
2036	100.30	103.84	104.15	98.13	92.11	81.09	97.21	87.79	98.23	102.10	102.08	99.77
2037	103.90	106.19	107.32	100.80	96.72	82.63	98.42	89.65	99.63	105.58	103.83	103.24
2038	106.63	108.17	109.11	102.76	97.37	85.19	101.14	90.69	103.90	108.20	105.75	105.85
2039	109.65	111.37	112.13	106.34	98.97	86.96	106.48	96.20	108.22	110.60	108.44	108.86
2040	112.13	113.43	114.50	108.34	100.07	89.08	107.33	97.98	110.92	112.29	110.09	110.91

## WIND INTEGRATION

			. = =				
			BLE 7				
		Wind Integration					
		Year	Cost				
		2015	3.76				
		2016	3.84				
TAB	LE 7	2017	3.91				
Wind Int	egration	2018	3.99				
Year	Cost	2019	4.07				
2014	3.70	2020	4.15				
2015	3.77	2021	4.23				
2016	3.84	2022	4.31				
2017	3.91	2023	4.40				
2018	3.99	2024	4.49				
2019	4.07	2025	4.57				
2020	4.15	2026	4.66				
2021	4.23	2027	4.76				
2022	4.31	2028	4.85				
2023	4.39	2029	4.95				
2024	4.47	2030	5.04				
2025	4.56	2031	5.14				
2026	4.65	2032	5.24				
2027	4.74	2033	5.35				
2028	4.83	2034	5.45				
2029	4.92	2035	5.56				
2030	5.02	2036	5.67				
2031	5.12	2037	5.78				
2032	5.21	2038	5.89				
2033	5.31	2039	6.01				
2034	5.42	2040	6.13				

#### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

#### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard PPA:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment, that economic conditions or claims experience may warrant.
- Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

#### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

#### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

#### INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

## DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10 MW. A Community-Based or Family-Owned QF is exempt from these restrictions.

#### **Definition of Community-Based**

- a. A community project (or a community sponsored project) must have a recognized and established organization located within the county of the project or within 50 miles of the project that has a genuine role in helping the project be developed and must have some not insignificant continuing role with or interest in the project after it is completed and placed in service.
- b. After excluding the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, the equity (ownership) interests in a community sponsored project must be owned in substantial percentage (80 percent or more) by the following persons (individuals and entities): (i) the sponsoring organization, or its controlled affiliates; (ii) members of the sponsoring organization (if it is a membership organization) or owners of the sponsorship organization (if it is privately owned); (iii) persons who live in the county in which the project is located or who live a county adjoining the county in which the project is located; or (iv) units of local government, charities, or other established nonprofit organizations active either in the county in which the project is located or active in a county adjoining the county in which the project is located.

#### **Definition of Family-Owned**

After excluding the ownership interest of the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, five or fewer individuals own 50 percent or more of the equity of the project entity, or fifteen or fewer individuals own 90 percent or more of the project entity. A "look through" rule applies to closely held entities that hold the project entity, so that equity held by LLCs, trusts, estates, corporations, partnerships or other similar entities is considered held by the equity owners of the look through entity. An individual is a natural person. In counting to five or fifteen, spouses or children of an equity owner of the project owner who also have an equity interest are aggregated and counted as a single individual.

#### **SCHEDULE 201 (Concluded)**

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

#### **Definition of Person(s) or Affiliated Person(s)**

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

#### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

#### **Definition of Shared Interconnection and Infrastructure**

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

#### **OTHER DEFINITIONS**

#### **Mid-C Index Price**

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average

## SCHEDULE 201 (ContinuedConcluded)

OTHER DEFINITIONS (Continued)

On-Peak Power and Average Off-Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

#### **Definition of RPS Attributes**

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

#### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

#### **Definition of Resource Sufficiency Period**

This is the period from the current year through 2020.

#### **Definition of Resource Deficiency Period**

This is the period from 2021 through 2034.

#### **Definition of Renewable Resource Sufficiency Period**

This is the period from the current year through 2019.

#### **Definition of Renewable Resource Deficiency Period**

This is the period from 2020 through 2034.

#### SCHEDULE 201 (ContinuedConcluded)

#### **DISPUTE RESOLUTION**

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA.

<u>—The QF may present Dd</u>isputes may be presented to the Commission for resolution <u>using the following process:</u>

The QF may file a complaint asking the Commission to adjudicate disputes regarding the formation of the standard contract. The QF may not file such a complaint during any 15-day period in which the utility has the obligation to respond, but must wait until the 15-day period has passed.

The utility may respond to the complaint within ten days of service.

The Commission will limit its review to the issues identified in the complaint and response, and utilize a process similar to the arbitration process adopted to facilitate the execution of interconnection agreements among telecommunications carriers. See OAR 860, Division 016. The administrative law judge will not act as an arbitrator.

#### **SPECIAL CONDITIONS**

- 1. Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- 3. Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

#### **TERM OF AGREEMENT**

Not less than one year and not to exceed 20 years.

#### STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE

#### **AGREEMENT**

THIS AGREEMENT, entered into this day,											
20, is between("Seller")											
and Portland General Electric Company ("PGE") (hereinafter each a "Party" of collectively, "Parties").											
RECITALS											
Seller intends to construct, own, operate and maintain a											
acility for the generation of electric power located in											
County, with a Nameplate Capacity Rating of kilowatt "kW"), as further described in Exhibit A ("Facility"); and											
Seller intends to operate the Facility as a "Qualifying Facility," as such term is defined in Section 3.1.3, below.											
Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.21, below, from the Facility in accordance with the terms and conditions of this Agreement.											
AGREEMENT											
<u> </u>											

NOW, THEREFORE, the Parties mutually agree as follows:

## **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.

- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:
- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.

- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.
  - 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with \_\_\_\_\_\_electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period, (provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date) plus any reasonable costs incurred by PGE to purchase

replacement power and/or transmission to deliver the replacement power to the Point of Delivery (For Start-Up Lost Energy Value See 1.35).

1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:

MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)

- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.

- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.
- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture

not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Contract Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours and Off-Peak Hours in each day.
- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).

- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

#### SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
- 2.2.1. By \_\_\_\_\_ [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and

  2.2.2. By \_\_\_\_ [date to be determined by the Seller subject to Section 2.2.3

below Seller shall have completed all requirements under Section 1.5 and shall have

established the Commercial Operation Date.

Up Lost Energy Value.

- 2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary. In the event Seller is unable to meet the requirements of Sections 2.2.1 and 2.2.2, and if PGE is resource deficient (as defined by the Commission) PGE may terminate this Agreement in accordance with Section 8.
- 2.3. This Agreement shall terminate on \_\_\_\_\_\_, \_\_\_\_ [date to be chosen by Seller], or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").

Otherwise, PGE may not terminate this Agreement but Seller shall pay PGE the Start-

#### SECTION 3: REPRESENTATIONS AND WARRANTIES

3.1		Seller and PGE represent, covenant, and warrant as follows:										
3.1	.1.	Seller	warrant	s it is	a		duly	organized	l under	the la	aws	of
3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.												
3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.												
3.1.4. Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.												
3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right, itle and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and bayable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.												
3.1.6. Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.												
3.1 greater tha				s that t	he Fa	cility has	a Na	ameplate	Capacity	/ Rati	ng n	ot
		Seller _ kW.	warrar	its that	Net	Depend	able	Capacity	of the	Fac	ility	is
3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is kilowatt-hours ("kWh"), which amount PGE will include in ts resource planning.												
3.1	.10.	Selle	r repre	sents a	nd wa	arrants t	hat th	ne Facility	shall	achie	ve tl	he

following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):

- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.
- 3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005

through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

#### SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5. During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of

this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

## **SECTION 5: OPERATION AND CONTROL**

- 5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

#### **SECTION 6: CREDITWORTHINESS**

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably

acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

## SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

## SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for any singletwo consecutive Contract Years or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
  - 8.1.6. Seller's failure to meet the Commercial Operation Date.
- 8.2. In the event of a default under Section 8.1.6, PGE may provide Seller with written notice of default. Seller shall have one year in which to cure the default during which time the Seller shall pay PGE damages equal to the Lost Energy Value. If Seller

is unable to cure the default, PGE may immediately terminate this Agreement as provided in Section 8.3. PGE's resource sufficiency/deficiency position shall have no bearing on PGE's right to terminate the Agreement under this Section 8.2.

- 8.32. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights. Provided, however, PGE may not terminate this Agreement for Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10.
- 8.43. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.54. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.65. Sections 8.1, 8.43, 8.54, 10, and 19.2 shall survive termination of this Agreement.

## SECTION 9: TRANSMISSION CURTAILMENTS

- 9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.
- 9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

## SECTION 10: INDEMNIFICATION AND LIABILITY

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

### **SECTION 11: INSURANCE**

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial

limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

#### **SECTION 12: FORCE MAJEURE**

12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

## SECTION 13: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

#### SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

#### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

## **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

## SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

## SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

## **SECTION 19: ENTIRE AGREEMENT**

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

### **SECTION 20: NOTICES**

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:		
with a copy to:		
To PGE:	Contracts Manager QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204	
	may change the person to whom such notices are address viding written notices thereof in accordance with this Sec	
	REOF, the Parties hereto have caused this Agreement to e names as of the Effective Date.	be
PGE		
By: Name: Title: Date:		
(Name Seller)		
By: Name: Title: Date:		

# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

## [Seller to Complete]

[Sellers may include reasonable expected monthly Net Output for purposes of Section 1.35 (Start-Up Lost Energy Value). Amounts may vary by month and shall be assumed repeated for each Contract Year, unless amounts for each Contract Year of this Agreement are set forth in this Exhibit A. Such amounts, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of this Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.]

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

# [Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

## EXHIBIT C START-UP TESTING

## [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments:
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests;
- Energization of transformers;
- Synchronizing tests (manual and auto);
- 6. Stator windings dielectric test:
- Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs:
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- Completion of all state and federal environmental testing requirements.

## EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

## UM 1931 PGE Exhibit 108

PGE's July 20, 2017 compliance filing in Docket No. UM 1805 responding to Order 17-256

Partial copy of PGE compliance filing including clean and redline versions of Schedule 201 and clean and redline (if available) versions of the Standard Renewable Off-System Variable PPA but not including the clean or redline versions of the remaining seven variants of PGE's contract forms.



V. Denise Saunders
Associate General Counsel

July 20, 2017

#### Via Electronic Filing

Public Utility Commission of Oregon Filing Center 201 High St SE, Suite 100 PO Box 1088 Salem OR 97308-1088

Re: UM 1805 – Northwest and Intermountain Power Producers Coalition, Community Renewable Energy Association, and Renewable Energy Coalition, Complainants vs. Portland General Electric Company, Defendant

### **Attention Filing Center:**

In compliance with ORS 757.205, ORS 757.220 and OPUC Order No. 17-256 in Docket No. UM 1805, Portland General Electric Company ("PGE") hereby submits the following original documents for filing:

- 1. PGE's revised Schedule 201, Qualifying Facility (QF) Power Purchase Information for Qualifying Facilities 10 MW or Less. Also provided as a courtesy is a redlined version of Sheet No. 201-1 through Sheet No. 201-24.
- 2. PGE's revised standard QF power purchase agreements as identified below, in both clean and redline formats:
  - a. Standard In-System Non-Variable Power Purchase Agreement
  - b. Standard Off-System Non-Variable Power Purchase Agreement
  - c. Standard In-System Variable Power Purchase Agreement
  - d. Standard Off-System Variable Power Purchase Agreement
  - e. Standard Renewable In-System Non-Variable Power Purchase Agreement
  - f. Standard Renewable Off-System Non-Variable Power Purchase Agreement
  - g. Standard Renewable In-System Variable Power Purchase Agreement
  - h. Standard Renewable Off-System Variable Power Purchase Agreement
- 3. A table showing how the changes required by Order No. 17-256 were incorporated in PGE's power purchase agreements and Schedule 201.

PGE respectfully requests an effective date of August 19, 2017, for the power purchase agreements and Schedule 201, or such other date as the Commission may direct in its order approving the enclosed documents.

Public Utility Commission of Oregon - UM 1805 July 20, 2017 Page 2 of 2

Please contact Denise Saunders at (503) 464-7181 or Rob Macfarlane at (503) 464-8954 with any questions pertaining to this filing.

Please direct all formal correspondence and requests to the following email address: pge.opuc.filings@pgn.com.

Thank you in advance for your assistance.

Sincerely,

V. Denise Saunders

Associate General Counsel

effr**ex & L**ovinger

Law Offices of Jeffrey S. Lovinger

VDS:bop

Enclosures

Table Showing Incorporation of 15-Year Fixed Price Terms in PGE Agreements and Schedules Required by OPUC Order No. 17-256 (Docket UM 1805)

July 20, 2017

Power Purchase	Termination Date not to exceed 20	Contract Price/Year for Delivered Net	Schedule 201 memorialize term	Schedule 201 Standard Fixed Price Option/	Schedule 201 Renewable Fixed Price Option/	Schedule 201 Term of
Agreements:	yrs. from COD	Output	in PPA agreement	terms for COD	terms for COD	Agreement
In-System	2.3	4.1				
Non-Variable						
Off-System Non-Variable	2.3	4.1				
In-System Variable	2.3	4.2				
Off-System Variable	2.3	4.2				
Renewable In-System Non-Variable	2.3	4.1				
Renewable Off-System Non-Variable	2.3	4.1				
Renewable In-System Variable	2.3	4.2				
Renewable Off-System Variable	2.3	4.2				
Schedule 201 QF 10 MW or Less			Sheet No. 201-1	Sheet No. 201-5	Sheet No. 201-12	Sheet No. 201-24

# STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE

#### **AGREEMENT**

THIS AGREEMENT is between ("Seller") and Portland General Electric Company ("PGE") (hereinafter each a 'Party" or collectively, "Parties") and is effective upon execution by both Parties ("Effective Date").
RECITALS
Seller intends to construct, own, operate and maintain a
Seller intends to operate the Facility as a "Qualifying Facility," as such term is defined in Section 3.1.3, below.
Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.21, below, from the Facility in accordance with the terms and conditions of this Agreement.

#### **AGREEMENT**

NOW, THEREFORE, the Parties mutually agree as follows:

## **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.
- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:

- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.
- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other

greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

- 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period (provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date) plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery (For Start-Up Lost Energy Value See 1.35).
- 1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:
  - MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)
- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for

Average On Peak Power and Average Off Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.
- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.

- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.
- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater

than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period - Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period – the time-weighted average of the Contract Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours in each day.

- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).
- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

## SECTION 2: TERM; COMMERCIAL OPERATION DATE

2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").

Time is of the essence of this Agreement, and Seller's ability to meet

2.2.

requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
2.2.1. By [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
2.2.2. By [date to be determined by the Seller subject to Section 2.2.3 below] Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.
2.3. This Agreement shall terminate on, [date to be chosen by Seller but not to exceed 20 years from the date contained in Section 2.2.2], or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").
SECTION 3: REPRESENTATIONS AND WARRANTIES
3.1. Seller and PGE represent, covenant, and warrant as follows:
3.1.1. Seller warrants it is a duly organized under the laws of
3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during

3.1.4. Seller warrants that it has not within the past two (2) years been the debtor

3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right,

in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this

title and interest in and to the Facility shall be free and clear of all liens and

Agreement current on all of its financial obligations.

encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.

- 3.1.6. Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8. Seller warrants that Net Dependable Capacity of the Facility is \_\_\_\_\_ kW.
- 3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is \_\_\_\_\_ kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):
- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production

Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.

3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005 through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

## SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
- 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output. For the first 15 years measured from the date in Section 2.2.2, the Contract Price will be the Renewable Fixed Price Option under the Schedule; thereafter and for the remainder of the Term, the Contract Price will be equal to the Mid-C Index Price.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- 4.4. Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 9:00:00 PPT on the

last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The Parties' respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.

From the start of the Renewable Resource Deficiency Period through the remainder of the Term of this Agreement, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

### **SECTION 5: OPERATION AND CONTROL**

5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.

- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

#### **SECTION 6: CREDITWORTHINESS**

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

#### SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

## SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.

- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for two consecutive Contract Years or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
  - 8.1.6. Seller's failure to meet the Commercial Operation Date.
- 8.2. In the event of a default under Section 8.1.6, PGE may provide Seller with written notice of default. Seller shall have one year in which to cure the default during which time the Seller shall pay PGE damages equal to the Lost Energy Value. If Seller is unable to cure the default, PGE may immediately terminate this Agreement as provided in Section 8.3. PGE's resource sufficiency/deficiency position shall have no bearing on PGE's right to terminate the Agreement under this Section 8.2.
- 8.3. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.5. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.6. Sections 8.1, 8.4, 8.5, 10, and 19.2 shall survive termination of this Agreement.

#### SECTION 9: TRANSMISSION CURTAILMENTS

9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.

9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

### SECTION 10: INDEMNIFICATION AND LIABILITY

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

#### SECTION 11: INSURANCE

- 11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.
- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

#### **SECTION 12: FORCE MAJEURE**

12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE

which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

## **SECTION 13: SEVERAL OBLIGATIONS**

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

#### SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

#### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

## **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

## SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

## SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

## **SECTION 19: ENTIRE AGREEMENT**

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

## **SECTION 20: NOTICES**

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

	To Seller:	<del></del>
	with a copy to:	
		Contracts Manager QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204
or the 20.	ir addresses, by prov	nay change the person to whom such notices are addressed, viding written notices thereof in accordance with this Section REOF, the Parties hereto have caused this Agreement to be
execu PGE	ted in their respective	e names as of the Effective Date.
Name Title: _	:	
(Name	e Seller)	
Name Title: _	:	
		<del></del>

# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

## [Seller to Complete]

[Sellers may include reasonable expected monthly Net Output for purposes of Section 1.35 (Start-Up Lost Energy Value). Amounts may vary by month and shall be assumed repeated for each Contract Year, unless amounts for each Contract Year of this Agreement are set forth in this Exhibit A. Such amounts, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of this Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.]

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

# [Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

## EXHIBIT C START-UP TESTING

## [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments:
- Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- Brake tests:
- Energization of transformers;
- 5. Synchronizing tests (manual and auto);
- Stator windings dielectric test;
- Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs:
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering:
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

## EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

#### **PURPOSE**

To provide information about Standard Avoided Costs and Renewable Avoided Costs, Standard Power Purchase Agreements (PPA) and Negotiated PPAs, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

#### **AVAILABLE**

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

#### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

#### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

#### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

#### **PPA**

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a PPA with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF and memorialized in the PPA.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

#### PPA (Continued)

Any Seller may elect to negotiate a PPA with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on either the filed Standard Avoided Costs or Renewable Avoided Costs in effect at that time.

#### STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

#### **GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA**

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

#### **OFF-SYSTEM PPA**

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a PPA with the Company after following the applicable Standard or Negotiated PPA guidelines and making the arrangements necessary for transmission of power to the Company's system.

#### **BASIS FOR POWER PURCHASE PRICE**

#### **AVOIDED COST SUMMARY**

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

#### **ON-PEAK PERIOD**

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

#### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

#### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

#### 1) Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

## **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

Sellers with terms exceeding 15 years from the commercial operation date will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15 years after the commercial operation date selected by the Seller and memorialized in the PPA.

		-		<del> </del>	Т.	ABLE 1a									
					Avo	ided Cos	ts								
			St	andard F	ixed Pric	e Option	for Base	Load QF	:						
				0	n-Peak F	orecast (	(\$/MWH)								
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	42.81	30.21	19.11	12.56	16.71	18.71	29.71	33.71	30.21	27.21	29.21	35.71			
2018	31.71	31.11	28.10	19.97	19.21	19.21	28.16	31.40	28.82	25.64	28.54	31.96			
2019	32.37	31.76	28.69	20.40	19.63	19.63	28.75	32.05	29.42	26.18	29.14	32.62			
2020	34.85	34.19	30.88	21.93	21.10	21.10	30.95	34.51	31.67	28.17	31.37	35.13			
2021	62.41	62.19	61.99	60.93	60.73	60.74	60.79	60.84	60.93	61.16	61.76	62.44			
2022	64.10	64.19	64.27	63.87	63.84	63.93	64.00	64.10	64.20	64.30	65.26	65.35			
2023	67.48	67.59	67.69	67.06	67.11	67.22	67.31	67.40	67.52	67.62	68.68	68.79			
2024															
2025	72.67	72.80	72.93	72.99	72.19	72.23	72.34	72.47	72.59	72.71	73.55	73.69			
2026	75.30	75.45	75.57	74.87	74.74	74.85	74.96	75.09	75.22	75.35	76.40	76.54			
2027	78.22	78.36	78.50	77.76	77.61	77.68	77.81	77.94	78.10	78.23	79.36	79.50			
2028	81.14	81.30	81.45	80.70	80.63	80.69	80.83	80.97	81.15	81.28	82.65	82.83			
2029	84.83	85.00	85.16	84.37	84.30	84.37	84.48	84.64	84.22	84.37	85.47	85.64			
2030	87.51	87.70	87.57	86.46	86.68	85.53	85.69	85.84	86.03	86.19	87.36	87.55			
2031	89.53	89.73	89.77	88.64	88.86	88.39	88.54	88.71	88.91	89.07	90.39	90.59			
2032	92.27	92.47	92.59	91.42	91.60	91.64	91.81	91.99	92.20	92.38	93.65	93.87			
2033	96.34	96.55	96.65	95.42	95.65	94.02	94.19	94.39	94.59	94.77	96.09	96.31			
2034	98.49	98.72	97.24	96.01	96.24	95.79	95.98	96.17	96.38	96.57	98.03	98.25			
2035	100.40	100.63	100.56	99.28	99.52	98.82	99.00	99.19	99.43	99.62	101.11	101.34			
2036	102.77	103.00	102.93	101.62	101.89	101.16	101.36	101.55	101.79	101.99	103.52	103.73			
2037	105.59	105.82	105.75	104.40	104.68	103.94	104.13	104.34	104.57	104.78	106.33	106.56			
2038	108.31	108.55	108.46	107.11	107.39	106.62	106.83	107.04	107.27	107.49	109.07	109.30			
2039	110.86	111.12	111.03	109.65	109.93	109.15	109.36	109.56	109.83	110.04	111.63	111.89			
2040	113.79	114.03	113.96	112.54	112.81	112.04	112.24	112.45	112.71	112.93	114.58	114.82			
2041	116.46	116.72	116.63	115.20	115.47	114.67	114.89	115.10	115.37	115.58	117.26	117.52			

## **SCHEDULE 201 (Continued)**

						ABLE 1b									
						ded Cos									
			Sta	andard F				Load QF							
				<u> </u>	ff-Peak F	orecast (	\$/MWH)								
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	30.96	25.46	12.96	4.46	7.71	9.21	17.71	24.96	25.21	23.71	24.96	29.71			
2018	24.82	26.66	24.24	15.66	11.92	10.25	17.66	24.16	24.06	22.13	24.58	26.67			
2019	25.39	27.27	24.80	16.04	12.22	10.52	18.08	24.72	24.62	22.65	25.15	27.28			
2020	27.90	29.97	27.24	17.56	13.34	11.45	19.82	27.15	27.04	24.86	27.63	29.99			
2021	23.86	23.65	23.45	22.38	22.19	22.20	22.25	22.30	22.38	22.62	23.21	23.90			
2022	24.81	24.90	24.99	24.59	24.55	24.64	24.71	24.81	24.91	25.01	25.97	26.07			
2023	27.30	27.42	27.52	26.88	26.94	27.04	27.14	27.23	27.35	27.44	28.51	28.62			
2024	<b>2024</b> 29.30 29.42 29.53 29.13 28.81 28.94 29.03 29.14 29.26 29.94 30.17 30.														
2025	31.06	31.20	31.32	31.39	30.58	30.63	30.74	30.86	30.98	31.11	31.95	32.08			
2026	32.90	33.04	33.16	32.46	32.33	32.44	32.55	32.68	32.82	32.94	33.99	34.13			
2027	34.99	35.13	35.27	34.54	34.38	34.45	34.58	34.71	34.87	35.00	36.13	36.27			
2028	37.08	37.23	37.39	36.64	36.57	36.63	36.77	36.91	37.09	37.22	38.59	38.77			
2029	39.92	40.09	40.25	39.46	39.39	39.46	39.57	39.72	39.31	39.46	40.56	40.73			
2030	41.73	41.92	41.80	40.68	40.90	39.75	39.91	40.06	40.25	40.41	41.59	41.77			
2031	42.86	43.07	43.10	41.98	42.20	41.73	41.88	42.04	42.25	42.41	43.72	43.93			
2032	45.01	45.20	45.33	44.16	44.34	44.38	44.55	44.73	44.93	45.11	46.39	46.61			
2033	47.85	48.06	48.17	46.94	47.17	45.54	45.71	45.91	46.11	46.29	47.61	47.83			
2034	48.91	49.14	47.67	46.43	46.66	46.22	46.41	46.59	46.81	47.00	48.46	48.67			
2035	50.03	50.26	50.19	48.91	49.15	48.45	48.63	48.82	49.06	49.25	50.74	50.97			
2036	51.59	51.83	51.76	50.44	50.71	49.98	50.18	50.38	50.61	50.81	52.34	52.55			
2037	53.26	53.48	53.41	52.06	52.35	51.61	51.79	52.01	52.23	52.45	54.00	54.22			
2038	54.97	55.20	55.12	53.77	54.04	53.27	53.49	53.69	53.93	54.14	55.73	55.96			
2039	56.49	56.74	56.65	55.28	55.56	54.78	54.98	55.19	55.46	55.66	57.26	57.51			
2040	58.37	58.61	58.54	57.12	57.39	56.62	56.82	57.03	57.28	57.51	59.15	59.40			
2041	59.97	60.23	60.14	58.70	58.98	58.18	58.40	58.61	58.87	59.09	60.77	61.03			

## **SCHEDULE 201 (Continued)**

					7	TABLE 2a	1								
						oided Cos									
						Price Opt									
	On-Peak Forecast (\$/MWH)														
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	38.90	26.30	15.20	8.65	12.80	14.80	25.80	29.80	26.30	23.30	25.30	31.80			
2018	27.72	27.12	24.11	15.98	15.22	15.22	24.17	27.41	24.83	21.65	24.55	27.97			
2019	28.30	27.69	24.62	16.33	15.56	15.56	24.68	27.98	25.35	22.11	25.07	28.55			
2020	30.70	30.04	26.73	17.78	16.95	16.95	26.80	30.36	27.52	24.02	27.22	30.98			
2021	25.66	25.45	25.25	24.18	23.99	24.00	24.05	24.10	24.18	24.42	25.01	25.69			
2022	26.64	26.74	26.82	26.42	26.39	26.47	26.55	26.64	26.75	26.84	27.81	27.90			
2023	29.20	29.31	29.41	28.78	28.83	28.94	29.03	29.12	29.24	29.34	30.40	30.51			
2024															
2025	33.01	33.15	33.27	33.34	32.53	32.57	32.69	32.81	32.93	33.06	33.90	34.03			
2026	34.88	35.03	35.14	34.44	34.32	34.42	34.54	34.66	34.80	34.92	35.98	36.11			
2027	37.01	37.15	37.29	36.56	36.41	36.48	36.60	36.73	36.90	37.02	38.16	38.30			
2028	39.14	39.30	39.45	38.70	38.63	38.69	38.83	38.97	39.15	39.28	40.65	40.83			
2029	42.02	42.19	42.35	41.56	41.49	41.56	41.67	41.83	41.42	41.56	42.67	42.84			
2030	43.87	44.06	43.94	42.82	43.04	41.89	42.05	42.20	42.39	42.55	43.73	43.91			
2031	45.04	45.24	45.28	44.16	44.37	43.91	44.06	44.22	44.42	44.59	45.90	46.10			
2032	47.19	47.39	47.52	46.34	46.52	46.56	46.73	46.91	47.12	47.30	48.57	48.79			
2033	50.13	50.34	50.44	49.21	49.44	47.82	47.99	48.18	48.38	48.56	49.88	50.10			
2034	51.25	51.47	50.00	48.77	49.00	48.55	48.74	48.93	49.14	49.33	50.79	51.01			
2035	52.38	52.62	52.55	51.26	51.51	50.81	50.99	51.18	51.41	51.61	53.10	53.33			
2036	53.96	54.20	54.13	52.82	53.08	52.36	52.55	52.75	52.99	53.18	54.72	54.92			
2037	55.70	55.93	55.86	54.51	54.79	54.05	54.24	54.45	54.68	54.89	56.44	56.67			
2038	57.46	57.70	57.61	56.26	56.54	55.77	55.98	56.19	56.42	56.64	58.22	58.45			
2039	59.04	59.29	59.20	57.82	58.10	57.32	57.53	57.73	58.00	58.21	59.81	60.06			
2040	60.96	61.20	61.12	59.71	59.98	59.21	59.40	59.62	59.87	60.10	61.74	61.98			
2041	62.61	62.87	62.78	61.35	61.63	60.83	61.04	61.26	61.52	61.73	63.41	63.67			

## **SCHEDULE 201 (Continued)**

					1	ABLE 2b	)								
					Avo	oided Cos	sts								
				Standar	d Fixed I	Price Opt	ion for W	/ind QF							
	Off-Peak Forecast (\$/MWH)														
						- 1			_						
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	27.05	21.55	9.05	0.55	3.80	5.30	13.80	21.05	21.30	19.80	21.05	25.80			
2018	20.83	22.67	20.25	11.67	7.93	6.26	13.67	20.17	20.07	18.14	20.59	22.68			
2019	21.32	23.20	20.73	11.97	8.15	6.45	14.01	20.65	20.55	18.58	21.08	23.21			
2020	23.75	25.82	23.09	13.41	9.19	7.30	15.67	23.00	22.89	20.71	23.48	25.84			
2021	19.63	19.42	19.22	18.15	17.96	17.97	18.02	18.07	18.15	18.39	18.98	19.67			
2022	20.50	20.59	20.68	20.28	20.24	20.33	20.40	20.50	20.60	20.70	21.66	21.76			
2023	22.91	23.03	23.13	22.49	22.55	22.65	22.75	22.84	22.96	23.05	24.12	24.23			
2024	24.83	24.95	25.06	24.66	24.34	24.47	24.56	24.67	24.79	25.47	25.70	25.82			
2025	26.50	26.64	26.76	26.83	26.02	26.07	26.18	26.30	26.42	26.55	27.39	27.52			
2026	28.25	28.39	28.51	27.81	27.68	27.79	27.90	28.03	28.17	28.29	29.34	29.48			
2027	30.25	30.39	30.53	29.80	29.64	29.71	29.84	29.97	30.13	30.26	31.39	31.53			
2028	32.25	32.40	32.56	31.81	31.74	31.80	31.94	32.08	32.26	32.39	33.76	33.94			
2029	35.00	35.17	35.33	34.54	34.47	34.54	34.65	34.80	34.39	34.54	35.64	35.81			
2030	36.71	36.90	36.78	35.66	35.88	34.73	34.89	35.04	35.23	35.39	36.57	36.75			
2031	37.74	37.95	37.98	36.86	37.08	36.61	36.76	36.92	37.13	37.29	38.60	38.81			
2032	39.80	39.99	40.12	38.95	39.13	39.17	39.34	39.52	39.72	39.90	41.18	41.40			
2033	42.54	42.75	42.86	41.63	41.86	40.23	40.40	40.60	40.80	40.98	42.30	42.52			
2034	43.49	43.72	42.25	41.01	41.24	40.80	40.99	41.17	41.39	41.58	43.04	43.25			
2035	44.51	44.74	44.67	43.39	43.63	42.93	43.11	43.30	43.54	43.73	45.22	45.45			
2036	45.96	46.20	46.13	44.81	45.08	44.35	44.55	44.75	44.98	45.18	46.71	46.92			
2037	47.52	47.74	47.67	46.32	46.61	45.87	46.05	46.27	46.49	46.71	48.26	48.48			
2038	49.12	49.35	49.27	47.92	48.19	47.42	47.64	47.84	48.08	48.29	49.88	50.11			
2039	50.53	50.78	50.69	49.32	49.60	48.82	49.02	49.23	49.50	49.70	51.30	51.55			
2040	52.29	52.53	52.46	51.04	51.31	50.54	50.74	50.95	51.20	51.43	53.07	53.32			
2041	53.78	54.04	53.95	52.51	52.79	51.99	52.21	52.42	52.68	52.90	54.58	54.84			

## **SCHEDULE 201 (Continued)**

						TABLE 3a	 l					
					Avo	oided Co	sts					
				Standar	d Fixed I	Price Opt	ion for S	olar QF				
				(	On-Peak	Forecast	(\$/MWH)	)				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	42.81	30.21	19.11	12.56	16.71	18.71	29.71	33.71	30.21	27.21	29.21	35.71
2018	31.71	31.11	28.10	19.97	19.21	19.21	28.16	31.40	28.82	25.64	28.54	31.96
2019	32.37	31.76	28.69	20.40	19.63	19.63	28.75	32.05	29.42	26.18	29.14	32.62
2020	34.85	34.19	30.88	21.93	21.10	21.10	30.95	34.51	31.67	28.17	31.37	35.13
2021	28.96	28.74	28.54	27.48	27.28	27.29	27.34	27.39	27.48	27.71	28.31	28.99
2022	30.00	30.09	30.18	29.78	29.75	29.83	29.90	30.00	30.11	30.20	31.16	31.26
2023	32.61	32.73	32.83	32.19	32.25	32.35	32.45	32.54	32.65	32.75	33.82	33.93
2024	34.67	34.80	34.91	34.51	34.19	34.31	34.41	34.52	34.64	35.31	35.54	35.66
2025	36.56	36.70	36.82	36.89	36.08	36.12	36.24	36.36	36.48	36.61	37.45	37.58
2026	38.50	38.65	38.76	38.06	37.94	38.04	38.16	38.28	38.42	38.54	39.60	39.73
2027	40.70	40.84	40.98	40.25	40.10	40.17	40.29	40.42	40.59	40.71	41.85	41.99
2028	42.90	43.06	43.21	42.46	42.39	42.45	42.59	42.74	42.91	43.04	44.41	44.59
2029	45.85	46.02	46.18	45.39	45.32	45.39	45.50	45.66	45.25	45.39	46.50	46.67
2030	47.78	47.97	47.84	46.73	46.95	45.80	45.96	46.11	46.30	46.46	47.63	47.82
2031	49.03	49.23	49.27	48.15	48.36	47.89	48.05	48.21	48.41	48.58	49.89	50.09
2032	51.26	51.45	51.58	50.41	50.59	50.63	50.79	50.97	51.18	51.36	52.63	52.85
2033	54.26	54.47	54.58	53.34	53.58	51.95	52.12	52.32	52.51	52.70	54.01	54.23
2034	55.46	55.69	54.22	52.98	53.21	52.77	52.96	53.15	53.36	53.55	55.01	55.22
2035	56.68	56.91	56.85	55.56	55.81	55.11	55.29	55.48	55.71	55.90	57.39	57.63
2036	58.35	58.59	58.52	57.21	57.47	56.75	56.94	57.14	57.38	57.57	59.10	59.31
2037	60.17	60.40	60.33	58.98	59.26	58.52	58.71	58.92	59.15	59.36	60.91	61.14
2038	62.02	62.25	62.16	60.82	61.09	60.32	60.54	60.74	60.98	61.19	62.77	63.01
2039	63.68	63.93	63.84	62.46	62.74	61.96	62.17	62.37	62.64	62.85	64.45	64.70
2040	65.69	65.94	65.86	64.44	64.71	63.94	64.14	64.35	64.61	64.83	66.48	66.72
2041	67.43	67.69	67.60	66.17	66.45	65.65	65.86	66.08	66.34	66.55	68.23	68.49

## **SCHEDULE 201 (Continued)**

					<del></del>	TABLE 3b									
						oided Cos									
				Standar	d Fixed I	Price Opt	ion for S	olar QF							
				(	Off-Peak	Forecast	(\$/MWH)	)							
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	30.96	25.46	12.96	4.46	7.71	9.21	17.71	24.96	25.21	23.71	24.96	29.71			
2018	24.82	26.66	24.24	15.66	11.92	10.25	17.66	24.16	24.06	22.13	24.58	26.67			
2019	25.39	27.27	24.80	16.04	12.22	10.52	18.08	24.72	24.62	22.65	25.15	27.28			
2020	27.90	29.97	27.24	17.56	13.34	11.45	19.82	27.15	27.04	24.86	27.63	29.99			
2021	23.86	23.65	23.45	22.38	22.19	22.20	22.25	22.30	22.38	22.62	23.21	23.90			
2022	24.81	24.90	24.99	24.59	24.55	24.64	24.71	24.81	24.91	25.01	25.97	26.07			
2023															
2024	29.30	29.42	29.53	29.13	28.81	28.94	29.03	29.14	29.26	29.94	30.17	30.29			
2025	31.06	31.20	31.32	31.39	30.58	30.63	30.74	30.86	30.98	31.11	31.95	32.08			
2026	32.90	33.04	33.16	32.46	32.33	32.44	32.55	32.68	32.82	32.94	33.99	34.13			
2027	34.99	35.13	35.27	34.54	34.38	34.45	34.58	34.71	34.87	35.00	36.13	36.27			
2028	37.08	37.23	37.39	36.64	36.57	36.63	36.77	36.91	37.09	37.22	38.59	38.77			
2029	39.92	40.09	40.25	39.46	39.39	39.46	39.57	39.72	39.31	39.46	40.56	40.73			
2030	41.73	41.92	41.80	40.68	40.90	39.75	39.91	40.06	40.25	40.41	41.59	41.77			
2031	42.86	43.07	43.10	41.98	42.20	41.73	41.88	42.04	42.25	42.41	43.72	43.93			
2032	45.01	45.20	45.33	44.16	44.34	44.38	44.55	44.73	44.93	45.11	46.39	46.61			
2033	47.85	48.06	48.17	46.94	47.17	45.54	45.71	45.91	46.11	46.29	47.61	47.83			
2034	48.91	49.14	47.67	46.43	46.66	46.22	46.41	46.59	46.81	47.00	48.46	48.67			
2035	50.03	50.26	50.19	48.91	49.15	48.45	48.63	48.82	49.06	49.25	50.74	50.97			
2036	51.59	51.83	51.76	50.44	50.71	49.98	50.18	50.38	50.61	50.81	52.34	52.55			
2037	53.26	53.48	53.41	52.06	52.35	51.61	51.79	52.01	52.23	52.45	54.00	54.22			
2038	54.97	55.20	55.12	53.77	54.04	53.27	53.49	53.69	53.93	54.14	55.73	55.96			
2039	56.49	56.74	56.65	55.28	55.56	54.78	54.98	55.19	55.46	55.66	57.26	57.51			
2040	58.37	58.61	58.54	57.12	57.39	56.62	56.82	57.03	57.28	57.51	59.15	59.40			
2041	59.97	60.23	60.14	58.70	58.98	58.18	58.40	58.61	58.87	59.09	60.77	61.03			

PRICING OPTIONS FOR STANDARD PPA (Continued)

#### 2) Renewable Fixed Price Option

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company from the start of the Renewable Resource Deficiency Period through the remainder of the PPA term.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with terms exceeding 15 years from the commercial operation date will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15 years following the commercial operation date selected by the Seller and memorialized in the PPA.

PRICING OPTIONS FOR STANDARD PPA (Continued)

Renewable Fixed Price Option (Continued)

					1	ΓABLE 4a	l								
					Renewab	le Avoide	ed Costs								
			Re		Fixed Pri				F						
					On-Peak I	Forecast	(\$/MWH)								
				_				_	_						
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	31.96	31.36	28.35	20.22	19.46	19.46	28.41	31.65	29.07	25.89	28.79	32.21			
2018	32.63	32.02	28.95	20.66	19.89	19.89	29.01	32.31	29.68	26.44	29.40	32.88			
2019	35.13	34.47	31.16	22.21	21.38	21.38	31.23	34.79	31.95	28.45	31.65	35.41			
2020	105.59	105.58	104.91	105.31	108.12	107.33	107.05	106.95	105.82	104.97	105.70	104.81 107.34			
2021															
2022	110.29	110.18	108.51	110.03	112.64	111.74	111.34	111.31	110.35	109.47	110.72	109.45			
2023	<b>2023</b> 112.83 112.45 110.71 112.53 114.68 114.03 113.73 113.41 112.67 111.65 113.16 112.														
2024	114.30	114.43	112.71	114.48	116.87	115.98	115.88	115.65	115.49	113.39	114.27	114.38			
2025	116.91	117.20	115.28	117.34	120.36	119.33	118.49	118.61	117.89	115.92	116.94	116.63			
2026	119.80	119.51	118.23	120.15	124.05	121.00	121.00	121.36	121.11	118.42	120.03	119.20			
2027	122.14	121.76	120.31	122.17	127.41	123.38	123.05	124.32	123.30	120.82	121.96	121.54			
2028	124.42	123.50	121.73	124.67	129.54	125.27	125.89	125.90	125.14	123.37	124.32	123.63			
2029	127.02	126.81	124.48	127.44	136.23	128.72	128.78	128.78	128.83	125.88	126.59	126.49			
2030	129.65	129.39	127.38	129.92	139.73	132.73	130.84	130.74	131.95	128.33	128.82	128.86			
2031	132.04	131.60	130.17	133.11	142.39	136.41	133.28	134.11	134.29	130.94	131.91	131.53			
2032	134.05	133.61	132.16	135.15	144.58	138.50	135.32	136.16	136.35	132.94	133.93	133.54			
2033	137.18	136.73	135.24	138.30	147.94	141.72	138.47	139.33	139.53	136.04	137.05	136.65			
2034	139.98	139.52	138.00	141.12	150.95	144.61	141.30	142.17	142.37	138.82	139.85	139.44			
2035	142.53	142.06	140.51	143.69	153.71	147.25	143.87	144.76	144.97	141.35	142.39	141.98			
2036	144.86	144.38	142.81	146.04	156.22	149.66	146.23	147.13	147.34	143.66	144.72	144.30			
2037	148.08	147.59	145.99	149.29	159.70	152.99	149.48	150.41	150.62	146.85	147.94	147.51			
2038	150.94	150.44	148.81	152.17	162.78	155.94	152.36	153.31	153.52	149.69	150.80	150.36			
2039	153.85	153.34	151.68	155.11	165.92	158.95	155.30	156.27	156.48	152.58	153.71	153.26			
2040	156.54	156.02	154.33	157.81	168.81	161.72	158.01	158.99	159.21	155.24	156.39	155.94			
2041	159.85	159.32	157.59	161.15	172.39	165.14	161.36	162.36	162.58	158.52	159.70	159.24			

## **SCHEDULE 201 (Continued)**

					Т	ABLE 4b									
						le Avoide									
			Re					e Load Q	F						
					Off-Peak I	orecast	(\$/MWH)								
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	25.07	26.91	24.49	15.91	12.17	10.50	17.91	24.41	24.31	22.38	24.83	26.92			
2018	25.65	27.53	25.06	16.30	12.48	10.78	18.34	24.98	24.88	22.91	25.41	27.54			
2019	28.18	30.25	27.52	17.84	13.62	11.73	20.10	27.43	27.32	25.14	27.91	30.27			
2020	55.06	55.29	56.65	55.55	52.58	52.78	53.04	54.06	54.85	55.93	55.76	56.14			
2021	56.97	56.29	57.78	56.57	54.03	54.07	54.64	54.94	55.96	57.75	55.61	57.11			
2022	57.78	57.49	59.46	57.46	54.79	55.12	56.44	55.58	57.03	58.82	56.52	58.16			
2023	58.53	58.57	60.63	59.03	55.13	56.16	57.38	56.90	58.03	60.02	57.37	59.34			
2024	<b>2024</b> 59.00 59.06 61.83 58.87 55.44 57.84 56.81 57.13 58.45 60.26 59.15 59.7														
2025	60.20	60.19	63.12	59.74	55.43	58.15	58.02	58.89	58.99	61.58	61.14	60.59			
2026	60.49	61.29	63.41	60.15	56.02	58.98	58.83	59.45	58.83	62.40	61.28	61.32			
2027	62.57	62.55	64.16	61.72	55.88	60.06	60.36	59.81	60.16	64.24	62.01	62.45			
2028	63.42	63.96	66.16	63.26	55.35	61.40	61.55	60.38	61.59	64.74	62.71	64.41			
2029	63.86	64.58	67.38	64.49	51.11	61.67	62.62	61.41	62.76	65.44	64.59	65.53			
2030	64.85	65.65	68.76	64.61	50.89	62.20	63.19	63.34	63.17	66.67	66.12	66.88			
2031	66.26	67.30	69.67	64.93	51.92	62.00	64.53	64.67	63.31	67.77	67.62	66.96			
2032	67.35	68.41	70.82	66.00	52.77	63.03	65.60	65.74	64.36	68.89	68.74	68.06			
2033	68.84	69.92	72.38	67.46	53.94	64.42	67.05	67.19	65.78	70.41	70.26	69.57			
2034	70.17	71.27	73.78	68.76	54.98	65.66	68.34	68.49	67.05	71.77	71.61	70.91			
2035	71.52	72.65	75.20	70.09	56.04	66.93	69.66	69.81	68.34	73.16	73.00	72.28			
2036	72.70	73.85	76.45	71.25	56.97	68.03	70.81	70.97	69.47	74.37	74.20	73.47			
2037	74.31	75.48	78.13	72.82	58.22	69.54	72.37	72.53	71.01	76.01	75.84	75.10			
2038	75.74	76.94	79.64	74.23	59.35	70.88	73.77	73.93	72.38	77.48	77.30	76.55			
2039	77.20	78.42	81.18	75.66	60.49	72.25	75.20	75.36	73.77	78.97	78.80	78.02			
2040	78.48	79.72	82.52	76.91	61.49	73.44	76.44	76.61	74.99	80.27	80.10	79.31			
2041	80.21	81.48	84.34	78.61	62.85	75.06	78.13	78.30	76.65	82.05	81.87	81.06			

## **SCHEDULE 201 (Continued)**

					T.	ABLE 5a									
				F	Renewabl	e Avoide	d Costs								
			F	Renewab	le Fixed F	Price Opt	ion for W	ind QF							
				0	n-Peak F	orecast (	\$/MWH)								
<u>, , , , , , , , , , , , , , , , , , , </u>				_						<b>0</b> ( )	1				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	28.05	27.45	24.44	16.31	15.55	15.55	24.50	27.74	25.16	21.98	24.88	28.30			
2018	28.64	28.03	24.96	16.67	15.90	15.90	25.02	28.32	25.69	22.45	25.41	28.89			
2019	31.06	30.40	27.09	18.14	17.31	17.31	27.16	30.72	27.88	24.38	27.58	31.34			
2020	65.63	65.62	64.95	65.35	68.16	67.37	67.09	66.99	65.86	65.01	65.74	64.85			
2021	67.13	67.33	66.01	66.95	69.45	68.79	68.28	68.73	67.40	66.52	67.66	66.49			
2022	68.65	68.54	66.88	68.40	71.01	70.11	69.71	69.68	68.71	67.83	69.09	67.82			
	<b>2023</b> 70.27 69.89 68.16 69.98 72.13 71.48 71.17 70.85 70.12 69.10 70.60 69.6														
	<b>2024</b> 71.17 71.30 69.58 71.35 73.75 72.85 72.75 72.52 72.36 70.27 71.15 71.3														
2025	72.83	73.12	71.19	73.26	76.28	75.24	74.41	74.52	73.80	71.83	72.86	72.55			
2026	74.86	74.57	73.29	75.21	79.12	76.06	76.06	76.42	76.17	73.48	75.09	74.26			
2027	76.34	75.95	74.50	76.36	81.61	77.57	77.25	78.51	77.50	75.01	76.15	75.73			
2028	77.73	76.81	75.04	77.98	82.85	78.58	79.21	79.22	78.45	76.68	77.63	76.94			
2029	79.43	79.22	76.89	79.86	88.64	81.13	81.20	81.20	81.24	78.29	79.00	78.91			
2030	81.14	80.88	78.87	81.41	91.22	84.22	82.33	82.23	83.44	79.82	80.31	80.35			
2031	82.59	82.15	80.72	83.66	92.94	86.96	83.83	84.66	84.84	81.49	82.46	82.08			
2032	83.94	83.50	82.05	85.04	94.47	88.39	85.21	86.05	86.24	82.83	83.82	83.43			
2033	85.81	85.36	83.88	86.93	96.58	90.36	87.11	87.97	88.16	84.68	85.69	85.29			
2034	87.46	87.00	85.49	88.60	98.43	92.09	88.78	89.66	89.85	86.30	87.33	86.93			
2035	89.16	88.68	87.14	90.32	100.34	93.88	90.50	91.39	91.59	87.97	89.02	88.61			
2036	90.61	90.13	88.56	91.79	101.97	95.41	91.98	92.88	93.09	89.41	90.47	90.05			
2037	92.63	92.14	90.53	93.83	104.24	97.53	94.02	94.95	95.16	91.40	92.49	92.06			
2038	94.41	93.91	92.28	95.64	106.25	99.41	95.84	96.78	97.00	93.16	94.27	93.83			
2039	96.24	95.73	94.07	97.49	108.31	101.33	97.69	98.65	98.87	94.96	96.09	95.65			
2040	97.81	97.29	95.60	99.08	110.08	102.99	99.28	100.26	100.48	96.51	97.66	97.21			
2041	99.99	99.46	97.73	101.29	112.53	105.29	101.50	102.50	102.73	98.67	99.84	99.38			

					T	ABLE 5b									
				R	Renewabl	e Avoided	d Costs								
			F			Price Opt		ind QF							
				0	ff-Peak F	orecast (	\$/MWH)								
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	21.23	23.07	20.65	12.07	8.33	6.66	14.07	20.57	20.47	18.54	20.99	23.08			
2018	21.74	23.62	21.15	12.39	8.57	6.87	14.43	21.07	20.97	19.00	21.50	23.63			
2019	24.19	26.26	23.53	13.85	9.63	7.74	16.11	23.44	23.33	21.15	23.92	26.28			
2020	50.91	51.14	52.50	51.40	48.43	48.63	48.89	49.91	50.70	51.78	51.61	51.99			
2021	52.74	52.06	53.55	52.34	49.80	49.84	50.41	50.71	51.73	53.52	51.38	52.88			
2022	53.47	53.18	55.15	53.15	50.48	50.81	52.13	51.27	52.72	54.51	52.21	53.85			
2023															
2024															
2025	55.64	55.63	58.56	55.18	50.87	53.59	53.46	54.33	54.43	57.02	56.58	56.03			
2026	55.84	56.64	58.76	55.50	51.37	54.33	54.18	54.80	54.18	57.75	56.63	56.67			
2027	57.83	57.81	59.42	56.98	51.14	55.32	55.62	55.07	55.42	59.50	57.27	57.71			
2028	58.59	59.13	61.33	58.43	50.52	56.57	56.72	55.55	56.76	59.91	57.88	59.58			
2029	58.94	59.66	62.46	59.57	46.19	56.75	57.70	56.49	57.84	60.52	59.67	60.61			
2030	59.83	60.63	63.74	59.59	45.87	57.18	58.17	58.32	58.15	61.65	61.10	61.86			
2031	61.14	62.18	64.55	59.81	46.80	56.88	59.41	59.55	58.19	62.65	62.50	61.84			
2032	62.14	63.20	65.61	60.79	47.56	57.82	60.39	60.53	59.15	63.68	63.53	62.85			
2033	63.53	64.61	67.07	62.15	48.63	59.11	61.74	61.88	60.47	65.10	64.95	64.26			
2034	64.75	65.85	68.36	63.34	49.56	60.24	62.92	63.07	61.63	66.35	66.19	65.49			
2035	66.00	67.13	69.68	64.57	50.52	61.41	64.14	64.29	62.82	67.64	67.48	66.76			
2036	67.07	68.22	70.82	65.62	51.34	62.40	65.18	65.34	63.84	68.74	68.57	67.84			
2037	68.57	69.74	72.39	67.08	52.48	63.80	66.63	66.79	65.27	70.27	70.10	69.36			
2038	69.89	71.09	73.79	68.38	53.50	65.03	67.92	68.08	66.53	71.63	71.45	70.70			
2039	71.24	72.46	75.22	69.70	54.53	66.29	69.24	69.40	67.81	73.01	72.84	72.06			
2040	72.40	73.64	76.44	70.83	55.41	67.36	70.36	70.53	68.91	74.19	74.02	73.23			
2041	74.02	75.29	78.15	72.42	56.66	68.87	71.94	72.11	70.46	75.86	75.68	74.87			

## **SCHEDULE 201 (Continued)**

					Т.	ABLE 6a									
				F	Renewabl	e Avoide	d Costs								
			F	Renewab	le Fixed F	Price Opt	ion for S	olar QF							
				0	n-Peak F	orecast (	\$/MWH)								
L								_							
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	31.96	31.36	28.35	20.22	19.46	19.46	28.41	31.65	29.07	25.89	28.79	32.21			
2018	32.63	32.02	28.95	20.66	19.89	19.89	29.01	32.31	29.68	26.44	29.40	32.88			
2019	35.13	34.47	31.16	22.21	21.38	21.38	31.23	34.79	31.95	28.45	31.65	35.41			
2020	68.87	68.85	68.18	68.58	71.40	70.61	70.33	70.23	69.09	68.24	68.98	68.09			
2021	70.42	70.63	69.31	70.25	72.74	72.08	71.57	72.02	70.70	69.81	70.95	69.79			
2022	72.01	71.90	70.23	71.76	74.37	73.47	73.07	73.04	72.07	71.19	72.44	71.17			
	<b>2023</b> 73.69 73.31 71.57 73.39 75.54 74.89 74.59 74.27 73.53 72.51 74.02 73.03														
	<b>2024</b> 74.65 74.79 73.07 74.84 77.23 76.33 76.24 76.01 75.85 73.75 74.63 74.7														
2025	76.38	76.67	74.74	76.81	79.83	78.79	77.96	78.07	77.35	75.38	76.41	76.10			
2026	78.48	78.19	76.91	78.83	82.74	79.68	79.68	80.04	79.79	77.11	78.71	77.88			
2027	80.03	79.64	78.19	80.05	85.30	81.26	80.94	82.20	81.19	78.71	79.84	79.42			
2028	81.49	80.57	78.80	81.74	86.61	82.35	82.97	82.98	82.21	80.45	81.39	80.71			
2029	83.26	83.05	80.72	83.69	92.47	84.96	85.03	85.03	85.07	82.12	82.83	82.74			
2030	85.04	84.79	82.78	85.32	95.13	88.13	86.24	86.14	87.35	83.73	84.22	84.26			
2031	86.57	86.14	84.71	87.65	96.93	90.95	87.82	88.65	88.83	85.48	86.45	86.07			
2032	88.01	87.56	86.11	89.10	98.54	92.45	89.27	90.11	90.30	86.90	87.88	87.49			
2033	89.95	89.49	88.01	91.06	100.71	94.49	91.24	92.10	92.29	88.81	89.82	89.42			
2034	91.68	91.22	89.70	92.82	102.65	96.31	93.00	93.87	94.07	90.52	91.55	91.14			
2035	93.45	92.98	91.44	94.61	104.63	98.17	94.80	95.69	95.89	92.27	93.32	92.91			
2036	95.00	94.52	92.95	96.18	106.36	99.79	96.36	97.27	97.48	93.80	94.86	94.44			
2037	97.10	96.61	95.00	98.30	108.71	102.00	98.49	99.42	99.63	95.87	96.96	96.53			
2038	98.97	98.47	96.84	100.20	110.81	103.97	100.39	101.34	101.55	97.72	98.83	98.39			
2039	100.88	100.37	98.71	102.13	112.95	105.97	102.33	103.29	103.51	99.60	100.74	100.29			
2040	102.54	102.02	100.33	103.82	114.81	107.72	104.02	105.00	105.22	101.25	102.40	101.94			
2041	104.81	104.28	102.55	106.11	117.35	110.10	106.32	107.32	107.55	103.49	104.66	104.20			

					TA	ABLE 6b									
					enewable										
			F				ion for So	olar QF							
				O	ff-Peak F	orecast (	\$/MWH)								
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2017	25.07	26.91	24.49	15.91	12.17	10.50	17.91	24.41	24.31	22.38	24.83	26.92			
2018	25.65	27.53	25.06	16.30	12.48	10.78	18.34	24.98	24.88	22.91	25.41	27.54			
2019	28.18	30.25	27.52	17.84	13.62	11.73	20.10	27.43	27.32	25.14	27.91	30.27			
2020	55.06	55.29	56.65	55.55	52.58	52.78	53.04	54.06	54.85	55.93	55.76	56.14			
2021	56.97	56.29	57.78	56.57	54.03	54.07	54.64	54.94	55.96	57.75	55.61	57.11			
2022	57.78	57.49	59.46	57.46	54.79	55.12	56.44	55.58	57.03	58.82	56.52	58.16			
2023	<b>2023</b> 58.53 58.57 60.63 59.03 55.13 56.16 57.38 56.90 58.03 60.02 57.37 59.														
2024	<b>024</b> 59.00 59.06 61.83 58.87 55.44 57.84 56.81 57.13 58.45 60.26 59.15 59.														
2025	60.20	60.19	63.12	59.74	55.43	58.15	58.02	58.89	58.99	61.58	61.14	60.59			
2026	60.49	61.29	63.41	60.15	56.02	58.98	58.83	59.45	58.83	62.40	61.28	61.32			
2027	62.57	62.55	64.16	61.72	55.88	60.06	60.36	59.81	60.16	64.24	62.01	62.45			
2028	63.42	63.96	66.16	63.26	55.35	61.40	61.55	60.38	61.59	64.74	62.71	64.41			
2029	63.86	64.58	67.38	64.49	51.11	61.67	62.62	61.41	62.76	65.44	64.59	65.53			
2030	64.85	65.65	68.76	64.61	50.89	62.20	63.19	63.34	63.17	66.67	66.12	66.88			
2031	66.26	67.30	69.67	64.93	51.92	62.00	64.53	64.67	63.31	67.77	67.62	66.96			
2032	67.35	68.41	70.82	66.00	52.77	63.03	65.60	65.74	64.36	68.89	68.74	68.06			
2033	68.84	69.92	72.38	67.46	53.94	64.42	67.05	67.19	65.78	70.41	70.26	69.57			
2034	70.17	71.27	73.78	68.76	54.98	65.66	68.34	68.49	67.05	71.77	71.61	70.91			
2035	71.52	72.65	75.20	70.09	56.04	66.93	69.66	69.81	68.34	73.16	73.00	72.28			
2036	72.70	73.85	76.45	71.25	56.97	68.03	70.81	70.97	69.47	74.37	74.20	73.47			
2037	74.31	75.48	78.13	72.82	58.22	69.54	72.37	72.53	71.01	76.01	75.84	75.10			
2038	75.74	76.94	79.64	74.23	59.35	70.88	73.77	73.93	72.38	77.48	77.30	76.55			
2039	77.20	78.42	81.18	75.66	60.49	72.25	75.20	75.36	73.77	78.97	78.80	78.02			
2040	78.48	79.72	82.52	76.91	61.49	73.44	76.44	76.61	74.99	80.27	80.10	79.31			
2041	80.21	81.48	84.34	78.61	62.85	75.06	78.13	78.30	76.65	82.05	81.87	81.06			

#### WIND INTEGRATION

TABLE 7									
	tegration								
Year	Cost								
2015	3.77								
2016	3.84								
2017	3.91								
2018	3.99								
2019	4.07								
2020	4.15								
2021	4.23								
2022	4.31								
2023	4.39								
2024	4.47								
2025	4.56								
2026	4.65								
2027	4.74								
2028	4.83								
2029	4.92								
2030	5.02								
2031	5.12								
2032	5.21								
2033	5.31								
2034	5.42								
2035	5.52								
2036	5.63								
2037	5.74								
2038	5.85								
2039	5.96								
2040	6.08								

#### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

#### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard PPA:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment, that economic conditions or claims experience may warrant.
- Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

#### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

#### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

#### INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

## DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10 MW. A Community-Based or Family-Owned QF is exempt from these restrictions.

#### **Definition of Community-Based**

- a. A community project (or a community sponsored project) must have a recognized and established organization located within the county of the project or within 50 miles of the project that has a genuine role in helping the project be developed and must have some not insignificant continuing role with or interest in the project after it is completed and placed in service.
- b. After excluding the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, the equity (ownership) interests in a community sponsored project must be owned in substantial percentage (80 percent or more) by the following persons (individuals and entities): (i) the sponsoring organization, or its controlled affiliates; (ii) members of the sponsoring organization (if it is a membership organization) or owners of the sponsorship organization (if it is privately owned); (iii) persons who live in the county in which the project is located or who live a county adjoining the county in which the project is located; or (iv) units of local government, charities, or other established nonprofit organizations active either in the county in which the project is located or active in a county adjoining the county in which the project is located.

#### **Definition of Family-Owned**

After excluding the ownership interest of the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, five or fewer individuals own 50 percent or more of the equity of the project entity, or fifteen or fewer individuals own 90 percent or more of the project entity. A "look through" rule applies to closely held entities that hold the project entity, so that equity held by LLCs, trusts, estates, corporations, partnerships or other similar entities is considered held by the equity owners of the look through entity. An individual is a natural person. In counting to five or fifteen, spouses or children of an equity owner of the project owner who also have an equity interest are aggregated and counted as a single individual.

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

#### **Definition of Person(s) or Affiliated Person(s)**

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

#### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

#### **Definition of Shared Interconnection and Infrastructure**

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

#### **OTHER DEFINITIONS**

#### **Mid-C Index Price**

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average

#### OTHER DEFINITIONS (Continued)

On-Peak Power and Average Off-Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

#### **Definition of RPS Attributes**

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

#### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

#### **Definition of Resource Sufficiency Period**

This is the period from the current year through 2020.

#### **Definition of Resource Deficiency Period**

This is the period from 2021 through 2034.

#### **Definition of Renewable Resource Sufficiency Period**

This is the period from the current year through 2019.

#### **Definition of Renewable Resource Deficiency Period**

This is the period from 2020 through 2034.

#### **SCHEDULE 201 (Concluded)**

#### **DISPUTE RESOLUTION**

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA.

The QF may present disputes to the Commission for resolution using the following process:

The QF may file a complaint asking the Commission to adjudicate disputes regarding the formation of the standard contract. The QF may not file such a complaint during any 15-day period in which the utility has the obligation to respond, but must wait until the 15-day period has passed.

The utility may respond to the complaint within ten days of service.

The Commission will limit its review to the issues identified in the complaint and response, and utilize a process similar to the arbitration process adopted to facilitate the execution of interconnection agreements among telecommunications carriers. See OAR 860, Division 016. The administrative law judge will not act as an arbitrator.

#### **SPECIAL CONDITIONS**

- 1. Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- 3. Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

#### **TERM OF AGREEMENT**

Not less than one year and not to exceed 20 years from the commercial operation date selected by the Seller and memorialized in the PPA.

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

#### **PURPOSE**

To provide information about Standard Avoided Costs and Renewable Avoided Costs, Standard Power Purchase Agreements (PPA) and Negotiated PPAs, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

#### **AVAILABLE**

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

#### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

#### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

#### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

#### **PPA**

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a PPA with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF and memorialized in the PPA.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

#### PPA (Continued)

Any Seller may elect to negotiate a PPA with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on either the filed Standard Avoided Costs or Renewable Avoided Costs in effect at that time.

#### STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

#### **GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA**

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

#### **OFF-SYSTEM PPA**

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a PPA with the Company after following the applicable Standard or Negotiated PPA guidelines and making the arrangements necessary for transmission of power to the Company's system.

#### **BASIS FOR POWER PURCHASE PRICE**

#### **AVOIDED COST SUMMARY**

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

#### **ON-PEAK PERIOD**

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

#### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

#### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

#### 1) Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

Sellers with PPAs terms exceeding 15 years from the commercial operation date will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15 years after the commercial operation date selected by the Seller and memorialized in the PPA.

					Т.	ABLE 1a						
					Avo	ided Cos	ts					
			St	andard F	ixed Pric	e Option	for Base	Load QF	:			
				0	n-Peak F	orecast (	\$/MWH)					
V	rear Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov De											<b>.</b>
Year	Jan		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	42.81	30.21	19.11	12.56	16.71	18.71	29.71	33.71	30.21	27.21	29.21	35.71
2018	31.71	31.11	28.10	19.97	19.21	19.21	28.16	31.40	28.82	25.64	28.54	31.96
2019	32.37	31.76	28.69	20.40	19.63	19.63	28.75	32.05	29.42	26.18	29.14	32.62
2020	34.85	34.19	30.88	21.93	21.10	21.10	30.95	34.51	31.67	28.17	31.37	35.13
2021	62.41	62.19	61.99	60.93	60.73	60.74	60.79	60.84	60.93	61.16	61.76	62.44
2022	64.10	64.19	64.27	63.87	63.84	63.93	64.00	64.10	64.20	64.30	65.26	65.35
2023	67.48	67.59	67.69	67.06	67.11	67.22	67.31	67.40	67.52	67.62	68.68	68.79
2024	69.99	70.11	70.22	69.82	69.50	69.62	69.72	69.83	69.95	70.62	70.85	70.98
2025	72.67	72.80	72.93	72.99	72.19	72.23	72.34	72.47	72.59	72.71	73.55	73.69
2026	75.30	75.45	75.57	74.87	74.74	74.85	74.96	75.09	75.22	75.35	76.40	76.54
2027	78.22	78.36	78.50	77.76	77.61	77.68	77.81	77.94	78.10	78.23	79.36	79.50
2028	81.14	81.30	81.45	80.70	80.63	80.69	80.83	80.97	81.15	81.28	82.65	82.83
2029	84.83	85.00	85.16	84.37	84.30	84.37	84.48	84.64	84.22	84.37	85.47	85.64
2030	87.51	87.70	87.57	86.46	86.68	85.53	85.69	85.84	86.03	86.19	87.36	87.55
2031	89.53	89.73	89.77	88.64	88.86	88.39	88.54	88.71	88.91	89.07	90.39	90.59
2032	92.27	92.47	92.59	91.42	91.60	91.64	91.81	91.99	92.20	92.38	93.65	93.87
2033	96.34	96.55	96.65	95.42	95.65	94.02	94.19	94.39	94.59	94.77	96.09	96.31
2034	98.49	98.72	97.24	96.01	96.24	95.79	95.98	96.17	96.38	96.57	98.03	98.25
2035	100.40	100.63	100.56	99.28	99.52	98.82	99.00	99.19	99.43	99.62	101.11	101.34
2036	102.77	103.00	102.93	101.62	101.89	101.16	101.36	101.55	101.79	101.99	103.52	103.73
2037	105.59	105.82	105.75	104.40	104.68	103.94	104.13	104.34	104.57	104.78	106.33	106.56
2038	108.31	108.55	108.46	107.11	107.39	106.62	106.83	107.04	107.27	107.49	109.07	109.30
2039	110.86	111.12	111.03	109.65	109.93	109.15	109.36	109.56	109.83	110.04	111.63	111.89
2040	113.79	114.03	113.96	112.54	112.81	112.04	112.24	112.45	112.71	112.93	114.58	114.82
2041	116.46	116.72	116.63	115.20	115.47	114.67	114.89	115.10	115.37	115.58	117.26	117.52

		<del></del> -	<del></del> -		TA	ABLE 1b	<del></del> -					
					Avoi	ded Cost	s					
			Sta				for Base	Load QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	30.96	25.46	12.96	4.46	7.71	9.21	17.71	24.96	25.21	23.71	24.96	29.71
2018	24.82	26.66	24.24	15.66	11.92	10.25	17.66	24.16	24.06	22.13	24.58	26.67
2019	25.39	27.27	24.80	16.04	12.22	10.52	18.08	24.72	24.62	22.65	25.15	27.28
2020	27.90	29.97	27.24	17.56	13.34	11.45	19.82	27.15	27.04	24.86	27.63	29.99
2021	23.86	23.65	23.45	22.38	22.19	22.20	22.25	22.30	22.38	22.62	23.21	23.90
2022	24.81	24.90	24.99	24.59	24.55	24.64	24.71	24.81	24.91	25.01	25.97	26.07
2023	27.30	27.42	27.52	26.88	26.94	27.04	27.14	27.23	27.35	27.44	28.51	28.62
2024	29.30	29.42	29.53	29.13	28.81	28.94	29.03	29.14	29.26	29.94	30.17	30.29
2025	31.06	31.20	31.32	31.39	30.58	30.63	30.74	30.86	30.98	31.11	31.95	32.08
2026	32.90	33.04	33.16	32.46	32.33	32.44	32.55	32.68	32.82	32.94	33.99	34.13
2027	34.99	35.13	35.27	34.54	34.38	34.45	34.58	34.71	34.87	35.00	36.13	36.27
2028	37.08	37.23	37.39	36.64	36.57	36.63	36.77	36.91	37.09	37.22	38.59	38.77
2029	39.92	40.09	40.25	39.46	39.39	39.46	39.57	39.72	39.31	39.46	40.56	40.73
2030	41.73	41.92	41.80	40.68	40.90	39.75	39.91	40.06	40.25	40.41	41.59	41.77
2031	42.86	43.07	43.10	41.98	42.20	41.73	41.88	42.04	42.25	42.41	43.72	43.93
2032	45.01	45.20	45.33	44.16	44.34	44.38	44.55	44.73	44.93	45.11	46.39	46.61
2033	47.85	48.06	48.17	46.94	47.17	45.54	45.71	45.91	46.11	46.29	47.61	47.83
2034	48.91	49.14	47.67	46.43	46.66	46.22	46.41	46.59	46.81	47.00	48.46	48.67
2035	50.03	50.26	50.19	48.91	49.15	48.45	48.63	48.82	49.06	49.25	50.74	50.97
2036	51.59	51.83	51.76	50.44	50.71	49.98	50.18	50.38	50.61	50.81	52.34	52.55
2037	53.26	53.48	53.41	52.06	52.35	51.61	51.79	52.01	52.23	52.45	54.00	54.22
2038	54.97	55.20	55.12	53.77	54.04	53.27	53.49	53.69	53.93	54.14	55.73	55.96
2039	56.49	56.74	56.65	55.28	55.56	54.78	54.98	55.19	55.46	55.66	57.26	57.51
2040	58.37	58.61	58.54	57.12	57.39	56.62	56.82	57.03	57.28	57.51	59.15	59.40
2041	59.97	60.23	60.14	58.70	58.98	58.18	58.40	58.61	58.87	59.09	60.77	61.03

						TABLE 2a						
						oided Co						
						Price Opt						
					On-Peak	Forecast	(\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	38.90	26.30	15.20	8.65	12.80	14.80	25.80	29.80	26.30	23.30	25.30	31.80
2018	27.72	27.12	24.11	15.98	15.22	15.22	24.17	27.41	24.83	21.65	24.55	27.97
2019	28.30	27.69	24.62	16.33	15.56	15.56	24.68	27.98	25.35	22.11	25.07	28.55
2020	30.70	30.04	26.73	17.78	16.95	16.95	26.80	30.36	27.52	24.02	27.22	30.98
2021	25.66	25.45	25.25	24.18	23.99	24.00	24.05	24.10	24.18	24.42	25.01	25.69
2022	26.64	26.74	26.82	26.42	26.39	26.47	26.55	26.64	26.75	26.84	27.81	27.90
2023	29.20	29.31	29.41	28.78	28.83	28.94	29.03	29.12	29.24	29.34	30.40	30.51
2024	31.19	31.31	31.42	31.03	30.71	30.83	30.93	31.04	31.16	31.83	32.06	32.18
2025	33.01	33.15	33.27	33.34	32.53	32.57	32.69	32.81	32.93	33.06	33.90	34.03
2026	34.88	35.03	35.14	34.44	34.32	34.42	34.54	34.66	34.80	34.92	35.98	36.11
2027	37.01	37.15	37.29	36.56	36.41	36.48	36.60	36.73	36.90	37.02	38.16	38.30
2028	39.14	39.30	39.45	38.70	38.63	38.69	38.83	38.97	39.15	39.28	40.65	40.83
2029	42.02	42.19	42.35	41.56	41.49	41.56	41.67	41.83	41.42	41.56	42.67	42.84
2030	43.87	44.06	43.94	42.82	43.04	41.89	42.05	42.20	42.39	42.55	43.73	43.91
2031	45.04	45.24	45.28	44.16	44.37	43.91	44.06	44.22	44.42	44.59	45.90	46.10
2032	47.19	47.39	47.52	46.34	46.52	46.56	46.73	46.91	47.12	47.30	48.57	48.79
2033	50.13	50.34	50.44	49.21	49.44	47.82	47.99	48.18	48.38	48.56	49.88	50.10
2034	51.25	51.47	50.00	48.77	49.00	48.55	48.74	48.93	49.14	49.33	50.79	51.01
2035	52.38	52.62	52.55	51.26	51.51	50.81	50.99	51.18	51.41	51.61	53.10	53.33
2036	53.96	54.20	54.13	52.82	53.08	52.36	52.55	52.75	52.99	53.18	54.72	54.92
2037	55.70	55.93	55.86	54.51	54.79	54.05	54.24	54.45	54.68	54.89	56.44	56.67
2038	57.46	57.70	57.61	56.26	56.54	55.77	55.98	56.19	56.42	56.64	58.22	58.45
2039	59.04	59.29	59.20	57.82	58.10	57.32	57.53	57.73	58.00	58.21	59.81	60.06
2040	60.96	61.20	61.12	59.71	59.98	59.21	59.40	59.62	59.87	60.10	61.74	61.98
2041	62.61	62.87	62.78	61.35	61.63	60.83	61.04	61.26	61.52	61.73	63.41	63.67

					1	ABLE 2b	 )					
						oided Cos						
				Standar	d Fixed I	Price Opt	ion for W	/ind QF				
					Off-Peak	Forecast	(\$/MWH)	)				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	27.05	21.55	9.05	0.55	3.80	5.30	13.80	21.05	21.30	19.80	21.05	25.80
2018	20.83	22.67	20.25	11.67	7.93	6.26	13.67	20.17	20.07	18.14	20.59	22.68
2019	21.32	23.20	20.73	11.97	8.15	6.45	14.01	20.65	20.55	18.58	21.08	23.21
2020	23.75	25.82	23.09	13.41	9.19	7.30	15.67	23.00	22.89	20.71	23.48	25.84
2021	19.63	19.42	19.22	18.15	17.96	17.97	18.02	18.07	18.15	18.39	18.98	19.67
2022	20.50	20.59	20.68	20.28	20.24	20.33	20.40	20.50	20.60	20.70	21.66	21.76
2023	22.91	23.03	23.13	22.49	22.55	22.65	22.75	22.84	22.96	23.05	24.12	24.23
2024	24.83	24.95	25.06	24.66	24.34	24.47	24.56	24.67	24.79	25.47	25.70	25.82
2025	26.50	26.64	26.76	26.83	26.02	26.07	26.18	26.30	26.42	26.55	27.39	27.52
2026	28.25	28.39	28.51	27.81	27.68	27.79	27.90	28.03	28.17	28.29	29.34	29.48
2027	30.25	30.39	30.53	29.80	29.64	29.71	29.84	29.97	30.13	30.26	31.39	31.53
2028	32.25	32.40	32.56	31.81	31.74	31.80	31.94	32.08	32.26	32.39	33.76	33.94
2029	35.00	35.17	35.33	34.54	34.47	34.54	34.65	34.80	34.39	34.54	35.64	35.81
2030	36.71	36.90	36.78	35.66	35.88	34.73	34.89	35.04	35.23	35.39	36.57	36.75
2031	37.74	37.95	37.98	36.86	37.08	36.61	36.76	36.92	37.13	37.29	38.60	38.81
2032	39.80	39.99	40.12	38.95	39.13	39.17	39.34	39.52	39.72	39.90	41.18	41.40
2033	42.54	42.75	42.86	41.63	41.86	40.23	40.40	40.60	40.80	40.98	42.30	42.52
2034	43.49	43.72	42.25	41.01	41.24	40.80	40.99	41.17	41.39	41.58	43.04	43.25
2035	44.51	44.74	44.67	43.39	43.63	42.93	43.11	43.30	43.54	43.73	45.22	45.45
2036	45.96	46.20	46.13	44.81	45.08	44.35	44.55	44.75	44.98	45.18	46.71	46.92
2037	47.52	47.74	47.67	46.32	46.61	45.87	46.05	46.27	46.49	46.71	48.26	48.48
2038	49.12	49.35	49.27	47.92	48.19	47.42	47.64	47.84	48.08	48.29	49.88	50.11
2039	50.53	50.78	50.69	49.32	49.60	48.82	49.02	49.23	49.50	49.70	51.30	51.55
2040	52.29	52.53	52.46	51.04	51.31	50.54	50.74	50.95	51.20	51.43	53.07	53.32
2041	53.78	54.04	53.95	52.51	52.79	51.99	52.21	52.42	52.68	52.90	54.58	54.84

				•		TABLE 3a						
						oided Co						
						Price Opt						
					On-Peak	Forecast	(\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	42.81	30.21	19.11	12.56	16.71	18.71	29.71	33.71	30.21	27.21	29.21	35.71
2018	31.71	31.11	28.10	19.97	19.21	19.21	28.16	31.40	28.82	25.64	28.54	31.96
2019	32.37	31.76	28.69	20.40	19.63	19.63	28.75	32.05	29.42	26.18	29.14	32.62
2020	34.85	34.19	30.88	21.93	21.10	21.10	30.95	34.51	31.67	28.17	31.37	35.13
2021	28.96	28.74	28.54	27.48	27.28	27.29	27.34	27.39	27.48	27.71	28.31	28.99
2022	30.00	30.09	30.18	29.78	29.75	29.83	29.90	30.00	30.11	30.20	31.16	31.26
2023	32.61	32.73	32.83	32.19	32.25	32.35	32.45	32.54	32.65	32.75	33.82	33.93
2024	34.67	34.80	34.91	34.51	34.19	34.31	34.41	34.52	34.64	35.31	35.54	35.66
2025	36.56	36.70	36.82	36.89	36.08	36.12	36.24	36.36	36.48	36.61	37.45	37.58
2026	38.50	38.65	38.76	38.06	37.94	38.04	38.16	38.28	38.42	38.54	39.60	39.73
2027	40.70	40.84	40.98	40.25	40.10	40.17	40.29	40.42	40.59	40.71	41.85	41.99
2028	42.90	43.06	43.21	42.46	42.39	42.45	42.59	42.74	42.91	43.04	44.41	44.59
2029	45.85	46.02	46.18	45.39	45.32	45.39	45.50	45.66	45.25	45.39	46.50	46.67
2030	47.78	47.97	47.84	46.73	46.95	45.80	45.96	46.11	46.30	46.46	47.63	47.82
2031	49.03	49.23	49.27	48.15	48.36	47.89	48.05	48.21	48.41	48.58	49.89	50.09
2032	51.26	51.45	51.58	50.41	50.59	50.63	50.79	50.97	51.18	51.36	52.63	52.85
2033	54.26	54.47	54.58	53.34	53.58	51.95	52.12	52.32	52.51	52.70	54.01	54.23
2034	55.46	55.69	54.22	52.98	53.21	52.77	52.96	53.15	53.36	53.55	55.01	55.22
2035	56.68	56.91	56.85	55.56	55.81	55.11	55.29	55.48	55.71	55.90	57.39	57.63
2036	58.35	58.59	58.52	57.21	57.47	56.75	56.94	57.14	57.38	57.57	59.10	59.31
2037	60.17	60.40	60.33	58.98	59.26	58.52	58.71	58.92	59.15	59.36	60.91	61.14
2038	62.02	62.25	62.16	60.82	61.09	60.32	60.54	60.74	60.98	61.19	62.77	63.01
2039	63.68	63.93	63.84	62.46	62.74	61.96	62.17	62.37	62.64	62.85	64.45	64.70
2040	65.69	65.94	65.86	64.44	64.71	63.94	64.14	64.35	64.61	64.83	66.48	66.72
2041	67.43	67.69	67.60	66.17	66.45	65.65	65.86	66.08	66.34	66.55	68.23	68.49

					1	ABLE 3b	)					
					Avo	oided Co	sts					
				Standar	d Fixed I	Price Opt	ion for S	olar QF				
				(	Off-Peak	Forecast	(\$/MWH)	<u> </u>				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	30.96	25.46	12.96	4.46	7.71	9.21	17.71	24.96	25.21	23.71	24.96	29.71
2018	24.82	26.66	24.24	15.66	11.92	10.25	17.66	24.16	24.06	22.13	24.58	26.67
2019	25.39	27.27	24.80	16.04	12.22	10.52	18.08	24.72	24.62	22.65	25.15	27.28
2020	27.90	29.97	27.24	17.56	13.34	11.45	19.82	27.15	27.04	24.86	27.63	29.99
2021	23.86	23.65	23.45	22.38	22.19	22.20	22.25	22.30	22.38	22.62	23.21	23.90
2022	24.81	24.90	24.99	24.59	24.55	24.64	24.71	24.81	24.91	25.01	25.97	26.07
2023	27.30	27.42	27.52	26.88	26.94	27.04	27.14	27.23	27.35	27.44	28.51	28.62
2024	29.30	29.42	29.53	29.13	28.81	28.94	29.03	29.14	29.26	29.94	30.17	30.29
2025	31.06	31.20	31.32	31.39	30.58	30.63	30.74	30.86	30.98	31.11	31.95	32.08
2026	32.90	33.04	33.16	32.46	32.33	32.44	32.55	32.68	32.82	32.94	33.99	34.13
2027	34.99	35.13	35.27	34.54	34.38	34.45	34.58	34.71	34.87	35.00	36.13	36.27
2028	37.08	37.23	37.39	36.64	36.57	36.63	36.77	36.91	37.09	37.22	38.59	38.77
2029	39.92	40.09	40.25	39.46	39.39	39.46	39.57	39.72	39.31	39.46	40.56	40.73
2030	41.73	41.92	41.80	40.68	40.90	39.75	39.91	40.06	40.25	40.41	41.59	41.77
2031	42.86	43.07	43.10	41.98	42.20	41.73	41.88	42.04	42.25	42.41	43.72	43.93
2032	45.01	45.20	45.33	44.16	44.34	44.38	44.55	44.73	44.93	45.11	46.39	46.61
2033	47.85	48.06	48.17	46.94	47.17	45.54	45.71	45.91	46.11	46.29	47.61	47.83
2034	48.91	49.14	47.67	46.43	46.66	46.22	46.41	46.59	46.81	47.00	48.46	48.67
2035	50.03	50.26	50.19	48.91	49.15	48.45	48.63	48.82	49.06	49.25	50.74	50.97
2036	51.59	51.83	51.76	50.44	50.71	49.98	50.18	50.38	50.61	50.81	52.34	52.55
2037	53.26	53.48	53.41	52.06	52.35	51.61	51.79	52.01	52.23	52.45	54.00	54.22
2038	54.97	55.20	55.12	53.77	54.04	53.27	53.49	53.69	53.93	54.14	55.73	55.96
2039	56.49	56.74	56.65	55.28	55.56	54.78	54.98	55.19	55.46	55.66	57.26	57.51
2040	58.37	58.61	58.54	57.12	57.39	56.62	56.82	57.03	57.28	57.51	59.15	59.40
2041	59.97	60.23	60.14	58.70	58.98	58.18	58.40	58.61	58.87	59.09	60.77	61.03

PRICING OPTIONS FOR STANDARD PPA (Continued)

#### 2) Renewable Fixed Price Option

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company from the start of the Renewable Resource Deficiency Period through the remainder of the PPA term.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with PPAs terms exceeding 15 years from the commercial operation date will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15 years following the commercial operation date selected by the Seller and memorialized in the PPA.

PRICING OPTIONS FOR STANDARD PPA (Continued)

Renewable Fixed Price Option (Continued)

						TABLE 4						
						ABLE 4a						
	Renewable Avoided Costs Renewable Fixed Price Option for Base Load QF											
	On-Peak Forecast (\$/MWH)											
	OH-Leav Loignast (Aliniaali)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	31.96	31.36	28.35	20.22	19.46	19.46	28.41	31.65	29.07	25.89	28.79	32.21
2018	32.63	32.02	28.95	20.66	19.89	19.89	29.01	32.31	29.68	26.44	29.40	32.88
2019	35.13	34.47	31.16	22.21	21.38	21.38	31.23	34.79	31.95	28.45	31.65	35.41
2020	105.59	105.58	104.91	105.31	108.12	107.33	107.05	106.95	105.82	104.97	105.70	104.81
2021	107.97	108.18	106.86	107.80	110.30	109.63	109.13	109.57	108.25	107.36	108.50	107.34
2022	110.29	110.18	108.51	110.03	112.64	111.74	111.34	111.31	110.35	109.47	110.72	109.45
2023	112.83	112.45	110.71	112.53	114.68	114.03	113.73	113.41	112.67	111.65	113.16	112.19
2024	114.30	114.43	112.71	114.48	116.87	115.98	115.88	115.65	115.49	113.39	114.27	114.38
2025	116.91	117.20	115.28	117.34	120.36	119.33	118.49	118.61	117.89	115.92	116.94	116.63
2026	119.80	119.51	118.23	120.15	124.05	121.00	121.00	121.36	121.11	118.42	120.03	119.20
2027	122.14	121.76	120.31	122.17	127.41	123.38	123.05	124.32	123.30	120.82	121.96	121.54
2028	124.42	123.50	121.73	124.67	129.54	125.27	125.89	125.90	125.14	123.37	124.32	123.63
2029	127.02	126.81	124.48	127.44	136.23	128.72	128.78	128.78	128.83	125.88	126.59	126.49
2030	129.65	129.39	127.38	129.92	139.73	132.73	130.84	130.74	131.95	128.33	128.82	128.86
2031	132.04	131.60	130.17	133.11	142.39	136.41	133.28	134.11	134.29	130.94	131.91	131.53
2032	134.05	133.61	132.16	135.15	144.58	138.50	135.32	136.16	136.35	132.94	133.93	133.54
2033	137.18	136.73	135.24	138.30	147.94	141.72	138.47	139.33	139.53	136.04	137.05	136.65
2034	139.98	139.52	138.00	141.12	150.95	144.61	141.30	142.17	142.37	138.82	139.85	139.44
2035	142.53	142.06	140.51	143.69	153.71	147.25	143.87	144.76	144.97	141.35	142.39	141.98
2036	144.86	144.38	142.81	146.04	156.22	149.66	146.23	147.13	147.34	143.66	144.72	144.30
2037	148.08	147.59	145.99	149.29	159.70	152.99	149.48	150.41	150.62	146.85	147.94	147.51
2038	150.94	150.44	148.81	152.17	162.78	155.94	152.36	153.31	153.52	149.69	150.80	150.36
2039	153.85	153.34	151.68	155.11	165.92	158.95	155.30	156.27	156.48	152.58	153.71	153.26
2040	156.54	156.02	154.33	157.81	168.81	161.72	158.01	158.99	159.21	155.24	156.39	155.94
2041	159.85	159.32	157.59	161.15	172.39	165.14	161.36	162.36	162.58	158.52	159.70	159.24

					т	ABLE 4b						
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Base Load QF											
	Off-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	25.07	26.91	24.49	15.91	12.17	10.50	17.91	24.41	24.31	22.38	24.83	26.92
2018	25.65	27.53	25.06	16.30	12.48	10.78	18.34	24.98	24.88	22.91	25.41	27.54
2019	28.18	30.25	27.52	17.84	13.62	11.73	20.10	27.43	27.32	25.14	27.91	30.27
2020	55.06	55.29	56.65	55.55	52.58	52.78	53.04	54.06	54.85	55.93	55.76	56.14
2021	56.97	56.29	57.78	56.57	54.03	54.07	54.64	54.94	55.96	57.75	55.61	57.11
2022	57.78	57.49	59.46	57.46	54.79	55.12	56.44	55.58	57.03	58.82	56.52	58.16
2023	58.53	58.57	60.63	59.03	55.13	56.16	57.38	56.90	58.03	60.02	57.37	59.34
2024	59.00	59.06	61.83	58.87	55.44	57.84	56.81	57.13	58.45	60.26	59.15	59.71
2025	60.20	60.19	63.12	59.74	55.43	58.15	58.02	58.89	58.99	61.58	61.14	60.59
2026	60.49	61.29	63.41	60.15	56.02	58.98	58.83	59.45	58.83	62.40	61.28	61.32
2027	62.57	62.55	64.16	61.72	55.88	60.06	60.36	59.81	60.16	64.24	62.01	62.45
2028	63.42	63.96	66.16	63.26	55.35	61.40	61.55	60.38	61.59	64.74	62.71	64.41
2029	63.86	64.58	67.38	64.49	51.11	61.67	62.62	61.41	62.76	65.44	64.59	65.53
2030	64.85	65.65	68.76	64.61	50.89	62.20	63.19	63.34	63.17	66.67	66.12	66.88
2031	66.26	67.30	69.67	64.93	51.92	62.00	64.53	64.67	63.31	67.77	67.62	66.96
2032	67.35	68.41	70.82	66.00	52.77	63.03	65.60	65.74	64.36	68.89	68.74	68.06
2033	68.84	69.92	72.38	67.46	53.94	64.42	67.05	67.19	65.78	70.41	70.26	69.57
2034	70.17	71.27	73.78	68.76	54.98	65.66	68.34	68.49	67.05	71.77	71.61	70.91
2035	71.52	72.65	75.20	70.09	56.04	66.93	69.66	69.81	68.34	73.16	73.00	72.28
2036	72.70	73.85	76.45	71.25	56.97	68.03	70.81	70.97	69.47	74.37	74.20	73.47
2037	74.31	75.48	78.13	72.82	58.22	69.54	72.37	72.53	71.01	76.01	75.84	75.10
2038	75.74	76.94	79.64	74.23	59.35	70.88	73.77	73.93	72.38	77.48	77.30	76.55
2039	77.20	78.42	81.18	75.66	60.49	72.25	75.20	75.36	73.77	78.97	78.80	78.02
2040	78.48	79.72	82.52	76.91	61.49	73.44	76.44	76.61	74.99	80.27	80.10	79.31
2041	80.21	81.48	84.34	78.61	62.85	75.06	78.13	78.30	76.65	82.05	81.87	81.06

					T	ABLE 5a						
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Wind QF											
	On-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	28.05	27.45	24.44	16.31	15.55	15.55	24.50	27.74	25.16	21.98	24.88	28.30
2018	28.64	28.03	24.96	16.67	15.90	15.90	25.02	28.32	25.69	22.45	25.41	28.89
2019	31.06	30.40	27.09	18.14	17.31	17.31	27.16	30.72	27.88	24.38	27.58	31.34
2020	65.63	65.62	64.95	65.35	68.16	67.37	67.09	66.99	65.86	65.01	65.74	64.85
2021	67.13	67.33	66.01	66.95	69.45	68.79	68.28	68.73	67.40	66.52	67.66	66.49
2022	68.65	68.54	66.88	68.40	71.01	70.11	69.71	69.68	68.71	67.83	69.09	67.82
2023	70.27	69.89	68.16	69.98	72.13	71.48	71.17	70.85	70.12	69.10	70.60	69.63
2024	71.17	71.30	69.58	71.35	73.75	72.85	72.75	72.52	72.36	70.27	71.15	71.26
2025	72.83	73.12	71.19	73.26	76.28	75.24	74.41	74.52	73.80	71.83	72.86	72.55
2026	74.86	74.57	73.29	75.21	79.12	76.06	76.06	76.42	76.17	73.48	75.09	74.26
2027	76.34	75.95	74.50	76.36	81.61	77.57	77.25	78.51	77.50	75.01	76.15	75.73
2028	77.73	76.81	75.04	77.98	82.85	78.58	79.21	79.22	78.45	76.68	77.63	76.94
2029	79.43	79.22	76.89	79.86	88.64	81.13	81.20	81.20	81.24	78.29	79.00	78.91
2030	81.14	80.88	78.87	81.41	91.22	84.22	82.33	82.23	83.44	79.82	80.31	80.35
2031	82.59	82.15	80.72	83.66	92.94	86.96	83.83	84.66	84.84	81.49	82.46	82.08
2032	83.94	83.50	82.05	85.04	94.47	88.39	85.21	86.05	86.24	82.83	83.82	83.43
2033	85.81	85.36	83.88	86.93	96.58	90.36	87.11	87.97	88.16	84.68	85.69	85.29
2034	87.46	87.00	85.49	88.60	98.43	92.09	88.78	89.66	89.85	86.30	87.33	86.93
2035	89.16	88.68	87.14	90.32	100.34	93.88	90.50	91.39	91.59	87.97	89.02	88.61
2036	90.61	90.13	88.56	91.79	101.97	95.41	91.98	92.88	93.09	89.41	90.47	90.05
2037	92.63	92.14	90.53	93.83	104.24	97.53	94.02	94.95	95.16	91.40	92.49	92.06
2038	94.41	93.91	92.28	95.64	106.25	99.41	95.84	96.78	97.00	93.16	94.27	93.83
2039	96.24	95.73	94.07	97.49	108.31	101.33	97.69	98.65	98.87	94.96	96.09	95.65
2040	97.81	97.29	95.60	99.08	110.08	102.99	99.28	100.26	100.48	96.51	97.66	97.21
2041	99.99	99.46	97.73	101.29	112.53	105.29	101.50	102.50	102.73	98.67	99.84	99.38

					T/	ABLE 5b						
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Wind QF											
	Off-Peak Forecast (\$/MWH)											
Vacu	lan l	Feb	Mar	A	Mari	l	lul I	A	Com	0-4	Nov	Dec
Year 2017	<b>Jan</b> 21.23	23.07	20.65	<b>Apr</b> 12.07	<b>May</b> 8.33	<b>Jun</b> 6.66	<b>Jul</b> 14.07	Aug	<b>Sep</b> 20.47	Oct 18.54	20.99	23.08
2017	21.23	23.62	21.15		8.57	6.87	14.43	20.57 21.07	20.47	19.00		23.63
2019	24.19	26.26		12.39 13.85	9.63	7.74	16.11	23.44		21.15	21.50 23.92	26.28
			23.53						23.33			
2020	50.91 52.74	51.14	52.50	51.40	48.43	48.63	48.89	49.91	50.70	51.78	51.61	51.99
		52.06	53.55	52.34	49.80	49.84	50.41	50.71	51.73	53.52	51.38	52.88
2022	53.47	53.18	55.15	53.15	50.48	50.81	52.13	51.27	52.72	54.51	52.21	53.85
2023	54.14	54.18	56.24	54.64	50.74	51.77	52.99	52.51	53.64	55.63	52.98	54.95
2024	54.53	54.59	57.36	54.40	50.97	53.37	52.34	52.66	53.98	55.79	54.68	55.24
2025	55.64	55.63	58.56	55.18	50.87	53.59	53.46	54.33	54.43	57.02	56.58	56.03
2026	55.84	56.64	58.76	55.50	51.37	54.33	54.18	54.80	54.18	57.75	56.63	56.67
2027	57.83	57.81	59.42	56.98	51.14	55.32	55.62	55.07	55.42	59.50	57.27	57.71
2028	58.59	59.13	61.33	58.43	50.52	56.57	56.72	55.55	56.76	59.91	57.88	59.58
2029	58.94	59.66	62.46	59.57	46.19	56.75	57.70	56.49	57.84	60.52	59.67	60.61
2030	59.83	60.63	63.74	59.59	45.87	57.18	58.17	58.32	58.15	61.65	61.10	61.86
2031	61.14	62.18	64.55	59.81	46.80	56.88	59.41	59.55	58.19	62.65	62.50	61.84
2032	62.14	63.20	65.61	60.79	47.56	57.82	60.39	60.53	59.15	63.68	63.53	62.85
2033	63.53	64.61	67.07	62.15	48.63	59.11	61.74	61.88	60.47	65.10	64.95	64.26
2034	64.75	65.85	68.36	63.34	49.56	60.24	62.92	63.07	61.63	66.35	66.19	65.49
2035	66.00	67.13	69.68	64.57	50.52	61.41	64.14	64.29	62.82	67.64	67.48	66.76
2036	67.07	68.22	70.82	65.62	51.34	62.40	65.18	65.34	63.84	68.74	68.57	67.84
2037	68.57	69.74	72.39	67.08	52.48	63.80	66.63	66.79	65.27	70.27	70.10	69.36
2038	69.89	71.09	73.79	68.38	53.50	65.03	67.92	68.08	66.53	71.63	71.45	70.70
2039	71.24	72.46	75.22	69.70	54.53	66.29	69.24	69.40	67.81	73.01	72.84	72.06
2040	72.40	73.64	76.44	70.83	55.41	67.36	70.36	70.53	68.91	74.19	74.02	73.23
2041	74.02	75.29	78.15	72.42	56.66	68.87	71.94	72.11	70.46	75.86	75.68	74.87

					T	ABLE 6a							
	Renewable Avoided Costs												
	Renewable Fixed Price Option for Solar QF												
	On-Peak Forecast (\$/MWH)												
<u>, , , , , , , , , , , , , , , , , , , </u>	Year Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec												
				Apr	,			Aug	Sep				
2017	31.96	31.36	28.35	20.22	19.46	19.46	28.41	31.65	29.07	25.89	28.79	32.21	
2018	32.63	32.02	28.95	20.66	19.89	19.89	29.01	32.31	29.68	26.44	29.40	32.88	
2019	35.13	34.47	31.16	22.21	21.38	21.38	31.23	34.79	31.95	28.45	31.65	35.41	
2020	68.87	68.85	68.18	68.58	71.40	70.61	70.33	70.23	69.09	68.24	68.98	68.09	
2021	70.42	70.63	69.31	70.25	72.74	72.08	71.57	72.02	70.70	69.81	70.95	69.79	
2022	72.01	71.90	70.23	71.76	74.37	73.47	73.07	73.04	72.07	71.19	72.44	71.17	
2023	73.69	73.31	71.57	73.39	75.54	74.89	74.59	74.27	73.53	72.51	74.02	73.05	
2024	74.65	74.79	73.07	74.84	77.23	76.33	76.24	76.01	75.85	73.75	74.63	74.74	
2025	76.38	76.67	74.74	76.81	79.83	78.79	77.96	78.07	77.35	75.38	76.41	76.10	
2026	78.48	78.19	76.91	78.83	82.74	79.68	79.68	80.04	79.79	77.11	78.71	77.88	
2027	80.03	79.64	78.19	80.05	85.30	81.26	80.94	82.20	81.19	78.71	79.84	79.42	
2028	81.49	80.57	78.80	81.74	86.61	82.35	82.97	82.98	82.21	80.45	81.39	80.71	
2029	83.26	83.05	80.72	83.69	92.47	84.96	85.03	85.03	85.07	82.12	82.83	82.74	
2030	85.04	84.79	82.78	85.32	95.13	88.13	86.24	86.14	87.35	83.73	84.22	84.26	
2031	86.57	86.14	84.71	87.65	96.93	90.95	87.82	88.65	88.83	85.48	86.45	86.07	
2032	88.01	87.56	86.11	89.10	98.54	92.45	89.27	90.11	90.30	86.90	87.88	87.49	
2033	89.95	89.49	88.01	91.06	100.71	94.49	91.24	92.10	92.29	88.81	89.82	89.42	
2034	91.68	91.22	89.70	92.82	102.65	96.31	93.00	93.87	94.07	90.52	91.55	91.14	
2035	93.45	92.98	91.44	94.61	104.63	98.17	94.80	95.69	95.89	92.27	93.32	92.91	
2036	95.00	94.52	92.95	96.18	106.36	99.79	96.36	97.27	97.48	93.80	94.86	94.44	
2037	97.10	96.61	95.00	98.30	108.71	102.00	98.49	99.42	99.63	95.87	96.96	96.53	
2038	98.97	98.47	96.84	100.20	110.81	103.97	100.39	101.34	101.55	97.72	98.83	98.39	
2039	100.88	100.37	98.71	102.13	112.95	105.97	102.33	103.29	103.51	99.60	100.74	100.29	
2040	102.54	102.02	100.33	103.82	114.81	107.72	104.02	105.00	105.22	101.25	102.40	101.94	
2041	104.81	104.28	102.55	106.11	117.35	110.10	106.32	107.32	107.55	103.49	104.66	104.20	

					T	ABLE 6b						
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Solar QF											
	Off-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	25.07	26.91	24.49	15.91	12.17	10.50	17.91	<b>Aug</b> 24.41	24.31	22.38	24.83	26.92
2017	25.65	27.53	25.06	16.30	12.17	10.30	18.34	24.41	24.88	22.91	25.41	27.54
2019	28.18	30.25	27.52	17.84	13.62	11.73	20.10	27.43	27.32	25.14	27.91	30.27
2019	55.06	55.29	56.65	55.55	52.58	52.78	53.04	54.06	54.85	55.93	55.76	56.14
2020	56.97	56.29	57.78	56.57	54.03	54.07	54.64	54.06	55.96	57.75	55.61	57.11
2021	57.78	57.49	59.46	57.46	54.03	55.12	56.44	55.58	57.03	58.82	56.52	58.16
2022	58.53	58.57	60.63	59.03	55.13	56.16	57.38	56.90	58.03	60.02	57.37	59.34
2023	59.00	59.06	61.83	58.87	55.44	57.84	56.81	57.13	58.45	60.02	59.15	59.71
2024	60.20	60.19	63.12	59.74	55.43	58.15	58.02	58.89	58.99	61.58	61.14	60.59
2025	60.49	61.29	63.41	60.15	56.02	58.98	58.83	59.45	58.83	62.40	61.28	61.32
2027	62.57	62.55	64.16	61.72	55.88	60.06	60.36	59.43	60.16	64.24	62.01	62.45
2027	63.42	63.96	66.16	63.26	55.35	61.40	61.55	60.38	61.59	64.74	62.71	64.41
2029	63.86	64.58	67.38	64.49	51.11	61.67	62.62	61.41	62.76	65.44	64.59	65.53
2030	64.85	65.65	68.76	64.61	50.89	62.20	63.19	63.34	63.17	66.67	66.12	66.88
2030	66.26	67.30	69.67	64.93	51.92	62.00	64.53	64.67	63.31	67.77	67.62	66.96
2032	67.35	68.41	70.82	66.00	52.77	63.03	65.60	65.74	64.36	68.89	68.74	68.06
2032	68.84	69.92	72.38	67.46	53.94	64.42	67.05	67.19	65.78	70.41	70.26	69.57
2034	70.17	71.27	73.78	68.76	54.98	65.66	68.34	68.49	67.05	71.77	71.61	70.91
2035	71.52	72.65	75.20	70.09	56.04	66.93	69.66	69.81	68.34	73.16	73.00	72.28
2036	71.32	73.85	76.45	71.25	56.97	68.03	70.81	70.97	69.47	74.37	74.20	73.47
2037	74.31	75.48	78.13	72.82	58.22	69.54	72.37	72.53	71.01	76.01	75.84	75.10
2038	75.74	76.94	79.64	74.23	59.35	70.88	73.77	73.93	72.38	77.48	77.30	76.55
2039	77.20	78.42	81.18	75.66	60.49	72.25	75.20	75.36	73.77	78.97	78.80	78.02
2040	78.48	79.72	82.52	76.91	61.49	73.44	76.44	76.61	74.99	80.27	80.10	79.31
2040	80.21	81.48	84.34	78.61	62.85	75.06	78.13	78.30	76.65	82.05	81.87	81.06
2041	0∪.∠ I	01.40	04.34	70.01	02.00	75.00	10.13	10.30	70.05	02.00	01.07	01.00

## WIND INTEGRATION

	TABLE 7						
Wind In	tegration						
Year	Cost						
2015	3.77						
2016	3.84						
2017	3.91						
2018	3.99						
2019	4.07						
2020	4.15						
2021	4.23						
2022	4.31						
2023	4.39						
2024	4.47						
2025	4.56						
2026	4.65						
2027	4.74						
2028	4.83						
2029	4.92						
2030	5.02						
2031	5.12						
2032	5.21						
2033	5.31						
2034	5.42						
2035	5.52						
2036	5.63						
2037	5.74						
2038	5.85						
2039	5.96						
2040	6.08						

#### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

#### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard PPA:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment, that economic conditions or claims experience may warrant.
- Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

#### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

#### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

#### INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

# DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10 MW. A Community-Based or Family-Owned QF is exempt from these restrictions.

## **Definition of Community-Based**

- a. A community project (or a community sponsored project) must have a recognized and established organization located within the county of the project or within 50 miles of the project that has a genuine role in helping the project be developed and must have some not insignificant continuing role with or interest in the project after it is completed and placed in service.
- b. After excluding the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, the equity (ownership) interests in a community sponsored project must be owned in substantial percentage (80 percent or more) by the following persons (individuals and entities): (i) the sponsoring organization, or its controlled affiliates; (ii) members of the sponsoring organization (if it is a membership organization) or owners of the sponsorship organization (if it is privately owned); (iii) persons who live in the county in which the project is located; or (iv) units of local government, charities, or other established nonprofit organizations active either in the county in which the project is located or active in a county adjoining the county in which the project is located.

#### **Definition of Family-Owned**

After excluding the ownership interest of the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, five or fewer individuals own 50 percent or more of the equity of the project entity, or fifteen or fewer individuals own 90 percent or more of the project entity. A "look through" rule applies to closely held entities that hold the project entity, so that equity held by LLCs, trusts, estates, corporations, partnerships or other similar entities is considered held by the equity owners of the look through entity. An individual is a natural person. In counting to five or fifteen, spouses or children of an equity owner of the project owner who also have an equity interest are aggregated and counted as a single individual.

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

#### **Definition of Person(s) or Affiliated Person(s)**

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

#### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

#### **Definition of Shared Interconnection and Infrastructure**

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

#### **OTHER DEFINITIONS**

#### **Mid-C Index Price**

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average

#### OTHER DEFINITIONS (Continued)

On-Peak Power and Average Off-Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

#### **Definition of RPS Attributes**

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

#### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

#### **Definition of Resource Sufficiency Period**

This is the period from the current year through 2020.

#### **Definition of Resource Deficiency Period**

This is the period from 2021 through 2034.

#### **Definition of Renewable Resource Sufficiency Period**

This is the period from the current year through 2019.

#### **Definition of Renewable Resource Deficiency Period**

This is the period from 2020 through 2034.

#### **SCHEDULE 201 (Concluded)**

#### **DISPUTE RESOLUTION**

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA.

The QF may present disputes to the Commission for resolution using the following process:

The QF may file a complaint asking the Commission to adjudicate disputes regarding the formation of the standard contract. The QF may not file such a complaint during any 15-day period in which the utility has the obligation to respond, but must wait until the 15-day period has passed.

The utility may respond to the complaint within ten days of service.

The Commission will limit its review to the issues identified in the complaint and response, and utilize a process similar to the arbitration process adopted to facilitate the execution of interconnection agreements among telecommunications carriers. See OAR 860, Division 016. The administrative law judge will not act as an arbitrator.

#### SPECIAL CONDITIONS

- 1. Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- 3. Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

#### **TERM OF AGREEMENT**

Not less than one year and not to exceed 20 years from the commercial operation date selected by the Seller and memorialized in the PPA.

# STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE

#### AGREEMENT

THIS AGREEMENT is between  ("Seller") and Portland General Electric Company ("PGE") (hereinafter each "Party" or collectively, "Parties") and is effective upon execution by both Partie ("Effective Date").
RECITALS
Seller intends to construct, own, operate and maintain a
Seller intends to operate the Facility as a "Qualifying Facility," as such term in defined in Section 3.1.3, below.
Seller shall sell and PGE shall purchase the entire Net Output, as such term in defined in Section 1.21, below, from the Facility in accordance with the terms and conditions of this Agreement.

#### **AGREEMENT**

NOW, THEREFORE, the Parties mutually agree as follows:

## **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.
- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:

- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.
- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other

greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

- 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period (provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date) plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery (For Start-Up Lost Energy Value See 1.35).
- 1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:
  - MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)
- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for

Average On Peak Power and Average Off Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.
- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.

- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.
- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater

than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period - Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period – the time-weighted average of the Contract Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours in each day.

- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).
- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

#### SECTION 2: TERM; COMMERCIAL OPERATION DATE

2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").

Time is of the essence of this Agreement, and Seller's ability to meet

2.2.

certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
2.2.1. By [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
2.2.2. By [date to be determined by the Seller subject to Section 2.2.3 below] Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.
2.3. This Agreement shall terminate on, [date to be chosen by Seller but not to exceed 20 years from the date contained in Section 2.2.2], or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").
SECTION 3: REPRESENTATIONS AND WARRANTIES
3.1. Seller and PGE represent, covenant, and warrant as follows:
3.1.1. Seller warrants it is a duly organized under the laws of
3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
3.1.4. Seller warrants that it has not within the past two (2) years been the debtor

3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right,

in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this

title and interest in and to the Facility shall be free and clear of all liens and

Agreement current on all of its financial obligations.

encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.

- 3.1.6. Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8. Seller warrants that Net Dependable Capacity of the Facility is \_\_\_\_\_ kW.
- 3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is \_\_\_\_\_ kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):
- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production

Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.

3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005 through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

# SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
- 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output. For the first 15 years measured from the date in Section 2.2.2, the Contract Price will be the Renewable Fixed Price Option under the Schedule; thereafter and for the remainder of the Term, the Contract Price will be equal to the Mid-C Index Price.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- 4.4. Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 9:00:00 PPT on the

last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The Parties' respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.

From the start of the Renewable Resource Deficiency Period through the remainder of the Term of this Agreement, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

#### **SECTION 5: OPERATION AND CONTROL**

5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.

- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

#### **SECTION 6: CREDITWORTHINESS**

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

#### SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

#### SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.

- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for two consecutive Contract Years or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
  - 8.1.6. Seller's failure to meet the Commercial Operation Date.
- 8.2. In the event of a default under Section 8.1.6, PGE may provide Seller with written notice of default. Seller shall have one year in which to cure the default during which time the Seller shall pay PGE damages equal to the Lost Energy Value. If Seller is unable to cure the default, PGE may immediately terminate this Agreement as provided in Section 8.3. PGE's resource sufficiency/deficiency position shall have no bearing on PGE's right to terminate the Agreement under this Section 8.2.
- 8.3. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.5. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.6. Sections 8.1, 8.4, 8.5, 10, and 19.2 shall survive termination of this Agreement.

#### **SECTION 9: TRANSMISSION CURTAILMENTS**

9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.

9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

#### SECTION 10: INDEMNIFICATION AND LIABILITY

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

#### **SECTION 11: INSURANCE**

- 11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.
- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

#### **SECTION 12: FORCE MAJEURE**

12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE

which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

#### SECTION 13: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

#### SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

#### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

#### **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

## SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

## SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

## **SECTION 19: ENTIRE AGREEMENT**

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

# **SECTION 20: NOTICES**

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:	
	<del></del>
with a copy to:	
To PGE:	Contracts Manager QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204
	es may change the person to whom such notices are addressed, providing written notices thereof in accordance with this Section
	HEREOF, the Parties hereto have caused this Agreement to be ctive names as of the Effective Date.
PGE	
Ву:	
Name:	
Title: Date:	<del></del>
(Name Seller)	
Ву:	
Name:	
Title:	
Date:	

# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

# [Seller to Complete]

[Sellers may include reasonable expected monthly Net Output for purposes of Section 1.35 (Start-Up Lost Energy Value). Amounts may vary by month and shall be assumed repeated for each Contract Year, unless amounts for each Contract Year of this Agreement are set forth in this Exhibit A. Such amounts, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of this Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.]

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

# [Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

Schedule 201

Standard Renewable Off-System Variable Power Purchase Agreement Form Effective August 12, 2016August 19, 2017

# EXHIBIT C START-UP TESTING

# [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments;
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests:
- Energization of transformers;
- 5. Synchronizing tests (manual and auto);
- Stator windings dielectric test;
- Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs:
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering:
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

# EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

# BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

#### **UM 1931**

# PORTLAND GENERAL ELECTRIC COMPANY

ALFALFA SOLAR I, LLC; DAYTON SOLAR I, LLC; FORT ROCK SOLAR I, LLC; FORT ROCK SOLAR II, LLC; FORT ROCK SOLAR IV, LLC; HARNEY SOLAR I, LLC; RILEY SOLAR I, LLC; STARVATION SOLAR I, LLC; TYGH VALLEY SOLAR I, LLC; AND WASCO SOLAR I, LLC

PORTLAND GENERAL ELECTRIC COMPANY

Direct Testimony and Exhibits of

Bruce True

December 7, 2018

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## I. INTRODUCTION

1	Q.	Please state	your name an	d position
1	v.	I leade state	your manic an	a position

- 2 A. My name is Bruce True. I am an energy economist and I work in contract
- management in the Wholesale Power Operations group at Portland General
- 4 Electric Company ("PGE").

# 5 Q. What is the purpose of your testimony?

- 6 A. The purpose of my testimony is to support PGE's January 25, 2018, complaint
- against the following ten qualifying facilities ("QFs"): Alfalfa Solar I, LLC;
- 8 Dayton Solar I, LLC; Fort Rock Solar I, LLC; Fort Rock Solar II, LLC; Fort Rock
- 9 Solar IV, LLC; Harney Solar I, LLC; Riley Solar I, LLC; Starvation Solar I, LLC;
- Tygh Valley Solar I, LLC; and Wasco Solar I, LLC (collectively, the "NewSun
- 11 Parties").

12

## Q. What relief does PGE seek under the Complaint?

- 13 A. PGE's Complaint seeks an interpretation by the Public Utility Commission of
- Oregon ("Commission") of ten standard power purchase agreements entered into
- by PGE and the ten NewSun Parties during the first half of 2016 (the "NewSun
- 16 PPAs"). PGE seeks a determination that it is obligated to pay fixed prices—the
- 17 Renewable Fixed Price Option—for any net output delivered during the first 15
- years of the contract term (i.e., the first 15 years following contract execution) and
- that PGE is obligated to pay market prices—the Mid-C Index Price—for any net
- 20 output delivered during the remainder of the contract term.

# Q. What is the position of the NewSun Parties?

1

19

A. The NewSun Parties argue that PGE must pay fixed prices for 15 years beginning 2 on the date the OF achieves commercial operation, a date that can be up to 4 years 3 after contract execution. Under the NewSun Parties' interpretation, PGE is 4 obligated to pay the Renewable Fixed Price Option for any net output delivered 5 for up to 19 years after contract execution, depending on the length of time 6 between execution and the commercial operation date. This position is 7 inconsistent with: (1) Order No. 05-584 (the Commission order mandating that 8 9 PGE offer standard contracts with a 15-year fixed-price period); (2) the express language of PGE's Commission-approved standard contract forms; and (3) PGE's 10 written notice to the NewSun Parties provided before they entered into the 11 NewSun PPAs and stating that under the contract forms PGE's obligation to pay 12 fixed prices, is limited to the first 15 years following contract execution. 13

# 14 Q. What is the scope of your testimony?

15 A. My testimony concerns the third and final point above. My testimony describes
16 the communications between PGE and the NewSun Parties regarding the prices
17 that PGE would pay to the NewSun Parties for power under the NewSun PPAs,
18 specifically about when and for how long PGE would pay the fixed prices.

# Q. How is your testimony organized?

20 A. My testimony is organized chronologically describing the communications.

1	O.	Please	summarize	vour	exhibits.
1	V.	1 Icuse	Summer Lec	your	CAIIIDIUS

- A. I have submitted 15 exhibits with this testimony. The exhibits are copies of the emails, letters and memoranda documenting the communications described in this testimony, and some of the draft PPAs exchanged. The exhibits are true and accurate copies from PGE's files and from the production of documents by the NewSun Parties in discovery in this proceeding.
- Each exhibit is described when I refer to it in my testimony that follows.

  The list of the exhibits follows my testimony.

# II. COMMUNICATIONS CONCERNING THE NEWSUN PPAS

- 9 Q. When did the NewSun Parties contact PGE about signing standard contracts10 with PGE for solar projects?
- 11 A. After speaking with him by telephone, I received an email from Jake Stephens, 12 the representative of the NewSun Parties, on October 14, 2015. He requested a copy of PGE's standard variable PPA. A copy of that email is attached as PGE 13 Exhibit 201. I responded to him the next day by email, attaching copies of 14 15 contract forms that the Commission had approved on September 22, 2015. Copies of the email and one of the attachments to the email (the Standard Renewable Off-16 System Variable Power Purchase Agreement form) are attached as PGE 17 Exhibit 202 and PGE Exhibit 203. 18
- Q. Did the documents that you exchanged with Mr. Stephens show that the 15year period for fixed prices in the PPA runs from execution?
- 21 A. Yes. Mr. Stephens sent an email to me on October 19, 2015, that attached 22 (1) PGE's Standard Renewable Variable Off-System Power Purchase Agreement

1		completed for Wasco Solar I, and (2) PGE's Schedule 201 Avoided Cost Power
2		Purchase Information, Sheet No. 201-1 to 201-24, which is Exhibit D to the PPA.
3		Copies of the email and those attachments are attached as PGE Exhibit 204,
4		PGE Exhibit 205, and PGE Exhibit 206. The Commission approved those form
5		documents on September 22, 2015. As explained in the concurrently filed
6		testimony of Robert Macfarlane, the Schedule 201 in Exhibit D to the PPA shows
7		that the fixed avoided price tables are the prices that PGE pays starting from
8		execution of the PPA for a maximum, but not a minimum, of 15 years.
9	Q.	How does PGE's Schedule 201 show that the amounts in the fixed avoided
10		costs tables are the prices that PGE pays starting from execution for 15 years
11		and not for 15 years starting from the commercial operation date?
12	A.	This is addressed in the concurrently filed testimony of Mr. Macfarlane.
13	Q.	Does PGE's Schedule 201 state when that maximum of 15-year period
14		begins?
15	A.	Yes, the 15 years begin to run at contract execution as explained in the
16		concurrently filed testimony of Mr. Macfarlane.
17	Q:	Is there any other text indicating that the 15-years of fixed prices runs from
18		execution and not the later commercial operation date?
19	A:	Yes. As explained in the concurrently filed testimony of Mr. Macfarlane,
20		Schedule 201 provides that PGE will pay off-peak fixed prices for any energy
21		delivered by the QF after contract execution, but before the QF achieves
22		commercial operation.

# Q. Did the NewSun Parties indicate that they accepted the Schedule 201?

Yes. In the email that attached the Schedule 201, Mr. Stephens, concerning the
PPAs for one of the NewSun Parties (Wasco Solar I), stated that "Wasco Solar I

LLC considers...[t]he PGE Schedule 201 Standard Renewable Off-System

Variable Power Purchase Agreement to be complete and acceptable as

presented." Mr. Stephens had modified the PPA document with text that PGE did

not accept, but Mr. Stephens had not modified the Exhibit D to the PPA, the

Schedule 201 with the text I quoted in my testimony above.

Q. Did the NewSun Parties ever indicate to you that they believe that the 15 years of fixed prices commences with the commercial operation date?

- 11 A. Yes. Mr. Stephens and I discussed this topic by phone and by email several times, 12 and the NewSun Parties and PGE exchanged letters on the subject of when the 13 15-years of fixed prices begins.
- Q. Do you recall any conversations you had with Mr. Stephens on this topic by phone or in person?
- 16 A. Yes. I recall telling Mr. Stephens several times by phone and once in person that
  17 the 15-years of fixed prices starts at execution of the PPAs.
- 18 Q. Did he agree?

19 A. Not that I know of. He even called me once on my personal cell phone, when I
20 was driving with my daughter, to discuss his position that the 15-years of fixed
21 prices starts at the commercial operation date.

<sup>&</sup>lt;sup>1</sup> PGE Exhibit 204.

# 1 Q. What did you tell him?

- 2 A. I told him that PGE's position is that the 15 years of fixed prices starts at execution and that if he did not agree, he should adjudicate it.
- 4 Q. Did you speak with anyone else at the NewSun Parties about this topic?
- A. Not that I remember. And except for letters between PGE's lawyers and NewSun's lawyers, I am not aware that anyone else at PGE discussed this topic with the NewSun Parties.
- Q. Did you have written communications with Mr. Stephens on the topic of
   when the 15 years of fixed prices begins?
- Yes. Mr. Stephens sent to me by email on October 19, 2015, and October 21, 10 A. 2015, revisions to the Standard Renewable Off-System Variable Power Purchase 11 Agreement for Wasco Solar I and Tygh Valley Solar I. Copies of the October 21 12 email and two attachments are attached as PGE Exhibit 207, PGE Exhibit 208, 13 and PGE Exhibit 209. On October 28, 2015, I responded that several of the 14 changes were not acceptable.<sup>2</sup> For example, the NewSun Parties revised the term 15 of the Tygh Valley Solar I PPA such that it ran for 20 years from the commercial 16 operation date.<sup>3</sup> They also revised it such that the commercial operation date 17 could be up to 47 months after execution.<sup>4</sup> 18
- Q. How does that communication about the total length of the PPA concern when the 15 years of fixed prices starts?

<sup>&</sup>lt;sup>2</sup> PGE Exhibit 210 at 3 (November 20, 2015, email from Bruce True to Jake Stephens, including several prior emails between the two of them).

<sup>&</sup>lt;sup>3</sup> PGE Exhibit 208 at 7 (Proposed Tygh Valley Solar I PPA at Section 2.3).

<sup>&</sup>lt;sup>4</sup> *Id.* at 6 (Proposed Tygh Valley Solar I PPA at Section 2.2.1).

- A. The discussion of one led to the other. We spoke by phone, and then on November 12, 2015, Mr. Stephens responded to my email by stating that he had found one example from among all the PPAs that PGE had ever signed where PGE had agreed to pay the fixed prices for 15 years from the commercial operation date, with a QF named OneEnergy Solar.<sup>5</sup>
- Q. Did PGE agree to pay fixed prices for 15 years from the commercial
   operation date to OneEnergy Solar?
- 8 A. By mistake PGE did so in that one PPA, and I told Mr. Stephens that the
  9 adjustment to that one PPA was in error. <sup>6</sup> OneEnergy Solar, not PGE, had
  10 modified the Standard Renewable PPA during the process of providing draft
  11 versions of the PPA to the QF, and PGE did not change the text back to the text
  12 that the Commission had approved. Further, the OneEnergy Solar PPA was a
  13 prior version of the Standard PPA, not the version that was available for the
  14 NewSun Parties.
- Other than the OneEnergy Solar PPA, did Mr. Stephens have any other basis to contend that the 15 years of fixed prices began at the commercial operation date?
- A. Mr. Stephens said in an email to me on November 19, 2015, that he had read "the original OPUC decision on contract length" and that it was "pretty clear" to him "that the whole logic was to provide 15 year term of fixed pricing operations for

<sup>&</sup>lt;sup>5</sup> PGE Exhibit 210 at 2.

<sup>&</sup>lt;sup>6</sup> *Id*. at 1.

- financing purposes[.]"<sup>7</sup> He didn't point to any specific text from any specific
  Commission decision.
- Q. What did you say in response to Mr. Stephens' opinion about the logic of theoriginal Commission decision?
- Order No. 05-584 stating "standard contract prices should be fixed for only the first 15 years of the 20-year term." I also told him that "under the current contract form"—the Standard PPA that was then in effect—"PGE provides a 15 year fixed price term starting on the Effective Date." I also told him that if QFs wanted to take advantage of the 15 years of fixed prices, they could do so by bringing the project on-line as soon as possible. <sup>10</sup>

# Q. Did Mr. Stephens then agree with you?

A. I don't think so. He emailed on December 4, 2015, and submitted a draft PPA for another NewSun PPA, the Starvation Solar I PPA.<sup>11</sup> He stated that "While we disagree on the OPUC requirements as relates [sic] term length and fixed pricing period, this submission provides for a term ending 16 years after the Effective Date and a COD three years after the Effective Date." Further, the day before he sent that email, his lawyer—Greg Adams—sent a letter to a lawyer in PGE's legal department, Denise Saunders, stating that the 15 years of fixed prices begins to run at the commercial operation date.<sup>13</sup>

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<sup>&</sup>lt;sup>7</sup> *Id*.

<sup>&</sup>lt;sup>8</sup> *Id.* (quoting from Order No. 05-584).

<sup>&</sup>lt;sup>9</sup> *Id*.

<sup>&</sup>lt;sup>10</sup> *Id*.

<sup>&</sup>lt;sup>11</sup> PGE Exhibit 211 (December 4, 2015, email from Jake Stephens to Bruce True).

<sup>12</sup> Id.

<sup>&</sup>lt;sup>13</sup> PGE Exhibit 212 (December 2, 2015, letter from Greg Adams to Denise Saunders).

# Q. What did the lawyer for the NewSun Parties state?

A. First, like Mr. Stephens, Mr. Adams stated that the purpose, in his opinion, of Order No. 05-584 was to guarantee 15 years of fixed prices after the commercial operation date to facilitate financing for OF projects. <sup>14</sup> He did not quote any text from the order that actually said that. Next, he quoted from the standard PPAs from PacifiCorp and Idaho Power, which provide that the 15 years of fixed prices begin at the Scheduled Initial Delivery Date for power and at the actual operation date, respectively. 15 Third, he contended that section 4.6 of the Renewable Standard PPA provides for 15 years of fixed prices from the commercial operation date, but section 4.6 concerns which party can claim the Environmental Attributes and the RPS Attributes, not the price. <sup>16</sup> Fourth, he, like Mr. Stephens, pointed to the OneEnergy Solar PPA and a PPA from 2010 with PáTu Wind Farm, LLC. He stated that the OneEnergy PPA provided for 15 years of fixed prices from the commercial operation date and he contended that the PáTu PPA provided for a 21-year total term. A copy of the 2010 PáTu PPA is attached for reference as PGE Exhibit 213. Mr. Adams further contended that other PGE PPAs had termination dates 15 years after the commercial operation date, and that this must mean those QFs intended to receive fixed prices for all 15 years after the commercial operation date. 17

<sup>14</sup> *Id*. at 1-2.

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<sup>&</sup>lt;sup>15</sup> *Id.* at 2.

<sup>&</sup>lt;sup>16</sup> *Id.* at 2-3.

<sup>&</sup>lt;sup>17</sup> *Id.* at 3.

Q. Did Mr. Adams for the NewSun Parties argue that the actual text of pricing provisions of the PPA that the NewSun Parties could sign provided that the 15 years of fixed prices began at the commercial operation date?

A. No. Instead, he requested that PGE change the PPAs to allow the NewSun Parties "to obtain standard contracts that clearly explain that the QF will sell its output under the fixed prices for a period of 15 years after the commercial operation date and an additional five years at the market prices. We propose language similar to that contained in the PáTu Wind Farm, LLC or OneEnergy Solar, LLC contracts, or a clarification of the point be included in the exhibit containing the prices." <sup>18</sup>

# Q. Did PGE change the PPAs for the NewSun Parties?

No. Denise Saunders, a lawyer in PGE's legal department, wrote back to 11 A. Mr. Adams on December 14, 2018, and disagreed with him. She quoted from 12 Order No. 05-584 where the Commission stated that "we are persuaded that 13 standard contract prices should be fixed for only the first 15 years of the 20-year 14 term." She also quoted the Commission's statement that if a QF opted for a 15 PPA "with a 20-year term, the OF must take . . . market pricing . . . for the final 16 five year of the contract." She also quoted from the standard PPA to show that 17 the 15 years ran from execution, using the same arguments that I had given to Mr. 18 Stephens and that are described in my testimony above. 21 She concluded by 19

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<sup>&</sup>lt;sup>18</sup> PGE Exhibit 212 at 3.

<sup>&</sup>lt;sup>19</sup> PGE Exhibit 214 at 1 (December 14, 2015, letter from Denise Saunders to Greg Adams, quoting Order No. 05-584, emphasis in Saunders letter).

<sup>&</sup>lt;sup>20</sup> *Id.* (quoting Order No. 05-584, emphasis in Saunders letter).

<sup>&</sup>lt;sup>21</sup> *Id.* at 2

stating that Order No. 05-584 and the words of the PPA are unambiguous that the 1 15-year fixed price term "starts at execution."<sup>22</sup> 2

Q. After PGE, through its in-house lawyer, refused the NewSun Parties' request 3 to change the PPA to specify that the 15 years of fixed prices begins at the 4 commercial operation date, did the NewSun Parties attempt to revise the 5 6 PPAs to include the changes that the NewSun Parties requested in the letter to Ms. Saunders? 7

> No. On December 18, 2015, four days after Ms. Saunders sent her letter to Mr. Adams by email, Mr. Stephens sent an email to me with numerous attachments which were the proposed PPAs for three more NewSun Parties, and in the email he stated that these were substantively the same as the earlier fourth PPA.<sup>23</sup> He did state in the email that the NewSun Parties disagreed with PGE's interpretation of (1) when the 15-year fixed price period began, (2) whether the NewSun Parties were entitled to commercial operation dates more than four years after execution, and (3) whether the total PPA term was capped at 20 years. But, none of the PPAs that Mr. Stephens sent by email had any changes that reflected the changes that Mr. Adams requested in his letter to Ms. Saunders, and nor do the final signed versions of any of the NewSun PPAs reflect any changes that Mr. Adams requested.

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<sup>&</sup>lt;sup>23</sup> PGE Exhibit 215 (December 18, 2015, email from Jake Stephens to Bruce True).

1 Q. Did PGE and the NewSun Parties then sign those	PPAs?
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- 2 A. Yes, but not immediately. Other unrelated changes were made, such as for the
- interconnection issues, and inserting the geographic coordinates for each of the
- 4 facilities into each PPA. The ten NewSun PPAs were signed during the first half
- of 2016.
- 6 Q. After that time, did the NewSun Parties or Mr. Stephens specifically address
- 7 the topic of when the 15-year fixed price period begins?
- 8 A. Not that I recall, and I have not found additional correspondence on that topic in
- 9 PGE's files after December 2015.
- 10 Q. Did the parties adjust any of the 10 NewSun PPAs to address the requests
- that the NewSun Parties made to PGE in Mr. Adams' letter to Ms.
- 12 **Saunders?**
- 13 A. No. The parties did not make any changes to the NewSun PPAs to implement the
- requests that the NewSun Parties made to PGE in Mr. Adams' letter to
- Ms. Saunders.

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# III. QUALIFICATIONS

- 17 Q. Please state your educational background and experience.
- 18 A. I received a Bachelor of Arts degree in economics from Boise State University
- and a master's degree and a doctoral degree in economics from UCLA. I joined
- 20 PGE in 1994. Since 2000, I have worked in contract management in the
- 21 Wholesale Power Operations Department. Immediately prior to this current
- position, I was in energy efficient evaluation. Since joining PGE, my duties and
- experiences have included Evaluation Contract Management; Energy Use

- Statistical Analysis; Contract Audit Management; Electric Quarterly Reporting;
- 2 Qualified Facility Contract Management; Settlement, and some Origination;
- 3 Energy Master Agreement negotiation; Renewable Energy Credit Settlements;
- 4 Hydro Electric Contract Management; and other duties as required.
- 5 Q. Does this conclude your testimony?
- 6 A. Yes.

# **List of Exhibits**

PGE Exh	<u>ibit</u> <u>Description</u>
201	October 14, 2015, email from Jake Stephens to Bruce True
202	October 15, 2015, email from Bruce True to Jake Stephens
203	Attached to email in Exhibit 202, blank Standard Renewable Variable Off-System PPA
204	October 19, 2015, email from Jake Stephens to Bruce True
205	Attachment #1 to email in Exhibit 204, PGE's Standard Renewable Variable Off-System PPA, completed by the NewSun Parties for Wasco Solar I
206	Attachment #2 to email in Exhibit 204, PGE's Schedule 201 Avoided Cost Power Purchase Information, Sheet No. 201-1 to 201-24, which is Exhibit D to the PPA
207	October 21, 2015, email from Jake Stephens to Bruce True
208	Attachment #1 to email in Exhibit 207, PGE's Standard Renewable Variable Off-System PPA, completed by the NewSun Parties for Tygh Valley Solar I
209	Attachment #2 to email in Exhibit 207, PGE's Schedule 201 Avoided Cost Power Purchase Information, Sheet No. 201-1 to 201-24, which is Exhibit D to the PPA
210	November 20, 2015, email from Bruce True to Jake Stephens, including several prior emails between the two of them
211	December 4, 2015 email from Jake Stephens to Bruce True
212	December 3, 2015 letter from Greg Adams to Denise Saunders
213	2010 PáTu PPA
214	December 14, 2015 letter from Denise Saunders to Greg Adams
215	December 18, 2015 email from Jake Stephens to Bruce True

UM 1931 PGE Exhibit 201

October 14, 2015, email from Jake Stephens to Bruce True

#### Message

From: Jake Stephens [jake@jakestephens.com]

**Sent**: 10/14/2015 8:01:28 PM

To: Bruce True [bruce.true@pgn.com]

Subject: Schedule 201

Hi Bruce,

Good talking to you last week. I appreciate your thought and guidance as I move forward bringing my QFs to PGE. As discussed I'll have a couple for you shortly.

One question: Can you please send me a word copy of the latest Standard Variable PPAs for both in-system and out-of-system (<10 MW)? You mentioned you could do that on the call.

Thanks. And also, thanks again for the suggestion on the WSPP conference. I'm planning to attend.

Best, Jake UM 1931 PGE Exhibit 202

October 15, 2015, email from Bruce True to Jake Stephens

#### Message

From: Bruce True [Bruce.True@pgn.com]

**Sent**: 10/15/2015 8:33:14 AM

**To**: Jake Stephens [jake@jakestephens.com]

Subject: RE: Schedule 201

Attachments: Doc 4-In-System Variable PPA Effective 09.23.15.doc; Doc 6-RENEWABLE Off System Variable

PPA\_Effective\_09.23.15.doc; Doc 7-RENEWABLE In System Variable PPA\_Effective\_09.23.15.doc; Doc 1-Off System

Variable PPA Effective 09.23.15.docx

You didn't say renewable or not, so I send both.

From: Jake Stephens [mailto:jake@jakestephens.com]

Sent: Wednesday, October 14, 2015 8:01 PM

To: Bruce True

Subject: Schedule 201

Hi Bruce,

Good talking to you last week. I appreciate your thought and guidance as I move forward bringing my QFs to PGE. As discussed I'll have a couple for you shortly.

One question: Can you please send me a word copy of the latest Standard Variable PPAs for both in-system and out-of-system (<10 MW)? You mentioned you could do that on the call.

Thanks. And also, thanks again for the suggestion on the WSPP conference. I'm planning to attend.

Best, Jake

# UM 1931 PGE Exhibit 203

Attachment to email in exhibit 202 Blank Standard Renewable Variable Off-System PPA

# STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE AGREEMENT

THIS AGREEMENT, entered in	nto this	_day,	
20, is between and Portland General Electric Col collectively, "Parties").			("Seller") ı a "Party" or
	RECITALS		
Seller intends to construct, own facility for the generation of electric portion of the county, with a Nai ("kW"), as further described in Exhibit	ower located in _ meplate Capacity	/ Rating of	kilowatt
Seller intends to operate the defined in Section 3.1.3, below.	Facility as a "Qu	ualifying Facility," a	s such term is
Seller shall sell and PGE shal defined in Section 1.21, below, fror conditions of this Agreement.	•	•	
<u>,</u>	AGREEMENT		

NOW, THEREFORE, the Parties mutually agree as follows:

# **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.

- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:
- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.

- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.
  - 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with \_\_\_\_\_\_\_electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period (provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date) plus any reasonable costs incurred by PGE to purchase

replacement power and/or transmission to deliver the replacement power to the Point of Delivery (For Start-Up Lost Energy Value See 1.35).

1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:

MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)

- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: https://www.theice.com/products/OTC/Physical-Energy/Electricity. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.

- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.
- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture

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Standard Renewable Off-System Variable Power Purchase Agreement
Form Effective September 23, 2015

not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours and Off-Peak Hours in each day.
- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).

- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

# SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
- 2.2.1. By \_\_\_\_\_ [date to be determined by the Seller] Seller shall begin initial deliveries of Net Output; and
- 2.2.2. By \_\_\_\_\_ [date to be determined by the Seller subject to Section 2.2.3 below] Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
- 2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.
- 2.3. This Agreement shall terminate on \_\_\_\_\_\_, \_\_\_\_ [date to be chosen by Seller], or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").

# SECTION 3: REPRESENTATIONS AND WARRANTIES

3.1. Seller and PGE represent, covenant, and warrant as follows:

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3.1.1. Seller warrants it is a duly organized under the laws	Of
3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, other material agreement binding on Seller or any valid order of any court, or a regulatory agency or other body having authority to which Seller is subject.	OI
3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreemed continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate Contification, which may include a Federal Energy Regulatory Commission ("FERC self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as QF under all applicable requirements.	18 QF 2"; ng
3.1.4. Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Ter of this Agreement current on all of its financial obligations.	
3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right title and interest in and to the Facility shall be free and clear of all liens are encumbrances other than liens and encumbrances arising from third-party financing the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, each case arising in the ordinary course of business that are either not yet due are payable or that have been released by means of a performance bond acceptable PGE posted within eight (8) calendar days of the commencement of any proceeding foreclose the lien.	no ir no to
3.1.6. Seller warrants that it will design and operate the Facility consistent will Prudent Electrical Practices.	ith
3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating n greater than 10,000 kW.	าด
3.1.8. Seller warrants that <b>N</b> et Dependable Capacity of the Facility kW.	is
3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is kilowatt-hours ("kWh"), which amount PGE will include	

3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):

its resource planning.

- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of \_\_\_\_\_ kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.
- 3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005

through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

# SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- 4.4. Seller shall provide preschedules for all deliveries of energy hereunder. including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The Parties' respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5. During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of

this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

#### SECTION 5: OPERATION AND CONTROL

- 5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

# SECTION 6: CREDITWORTHINESS

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably

acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

# SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

# SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for two consecutive Contract Years or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
  - 8.1.6. Seller's failure to meet the Commercial Operation Date.
- 8.2. In the event of a default under Section 8.1.6, PGE may provide Seller with written notice of default. Seller shall have one year in which to cure the default during which time the Seller shall pay PGE damages equal to the Lost Energy Value. If Seller

is unable to cure the default, PGE may immediately terminate this Agreement as provided in Section 8.3. PGE's resource sufficiency/deficiency position shall have no bearing on PGE's right to terminate the Agreement under this Section 8.2.

- 8.3. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.5. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.6. Sections 8.1, 8.4, 8.5, 10, and 19.2 shall survive termination of this Agreement.

# **SECTION 9: TRANSMISSION CURTAILMENTS**

- 9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.
- 9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

# SECTION 10: INDEMNIFICATION AND LIABILITY

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

# SECTION 11: INSURANCE

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of

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insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

# SECTION 12: FORCE MAJEURE

12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect

the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

#### SECTION 13: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

# SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

# SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations

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concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

# **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

# SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

# SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

# SECTION 19: ENTIRE AGREEMENT

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

# **SECTION 20: NOTICES**

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in

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person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

	To Seller:	
	with a copy to:	
	To PGE:	Contracts Manager QF Contracts, 3WTC0306 PGE - 121 SW Salmon St.
		Portland, Oregon 97204
or the 20.		may change the person to whom such notices are addressed, oviding written notices thereof in accordance with this Section
execu		REOF, the Parties hereto have caused this Agreement to be re names as of the Effective Date.
PGE		
Dv.		
ьу Name	):	
Title: <sub>-</sub>		
Date: <sub>-</sub>		
(Nam	e Seller)	
By:		
Name	)	
ritie: -		
Date: <sub>-</sub>		

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# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

## [Seller to Complete]

[Sellers may include reasonable expected monthly Net Output for purposes of Section 1.35 (Start-Up Lost Energy Value). Amounts may vary by month and shall be assumed repeated for each Contract Year, unless amounts for each Contract Year of this Agreement are set forth in this Exhibit A. Such amounts, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of this Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.]

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# EXHIBIT B REQUIRED FACILITY DOCUMENTS

# [Seller list all permits and authorizations required for this project]

Sellers Generation Interconnection Agreement

# EXHIBIT C START-UP TESTING

# [Seller identify appropriate tests]

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- Pressure tests of all steam system equipment;
- Calibration of all pressure, level, flow, temperature and monitoring instruments;
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests;
- 4. Energization of transformers;
- 5. Synchronizing tests (manual and auto);
- 6. Stator windings dielectric test;
- 7. Armature and field windings resistance tests;
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs;
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

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# EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

UM 1931 PGE Exhibit 204

October 19, 2015, email from Jake Stephens to Bruce True

#### Message

From: Jake Stephens [jake@jakestephens.com]

**Sent**: 10/19/2015 2:33:22 PM

To: Bruce True [bruce.true@pgn.com]

Subject: Wasco Solar I

Attachments: Form 556 - Wasco Solar I - 2015.10.19 Filed & Accepted by FERC.pdf; Exhibit D - PGE Sched\_201 less than 10 MW

(Effective 2015.09.23).pdf; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - WASCO SOLAR I

v1.doc

### Dear Bruce,

As regards the planned 10 MW QF "Wasco Solar I", owned by Wasco Solar I LLC, and planned for construction in Wasco County, OR by end of calendar year 2019 (pending PPA's Effective Date), please find attached:

- 1) Form 556, as filed with FERC.
- 2) The PGE Schedule 201 Standard Renewable Off-System Variable Power Purchase Agreement for the facility, completed for the Facility and which Agreement Wasco Solar I LLC considers to be complete and acceptable as presented.

Please let me know if you have any questions. I think it should be pretty straightforward. I put a couple brief comments in there for clarification's sake. The interconnection may change from initially being Wasco Coop to later a direct BPA connection -- and I think the phrasing I chose when specifying the interconnecting utility should cover that.

I appreciate your assistance and look forward to the formal execution of this agreement by PGE. I presume that if the document is signed earlier or later by PGE that the Effective Date will be updated accordingly.

Best regards,

Jake Stephens 520-981-7303

# UM 1931 PGE Exhibit 205

Attachment #1 to mail in exhibit 204 PGE's Standard Renewable Variable Off-System PPA

# STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE AGREEMENT

THIS AGREEMENT, entered into this <u>15th</u> day, <u>November</u> 2015, is between <u>WASCO SOLAR I LLC</u> ("Seller") and Portland General Electric Company ("PGE") (hereinafter each a "Party" or collectively, "Parties").

RECITALS

Seller intends to construct, own, operate and maintain a photovoltaics-based solar generation facility for the generation of electric power located in \_\_\_\_\_ Wasco County, Oregon with a Nameplate Capacity Rating of \_\_\_\_\_ 10,000 kilowatt-AC ("kW"), as further described in Exhibit A ("Facility"); and

Seller intends to operate the Facility as a "Qualifying Facility," as such term is defined in Section 3.1.3, below.

Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.21, below, from the Facility in accordance with the terms and conditions of this Agreement.

### AGREEMENT

NOW, THEREFORE, the Parties mutually agree as follows:

### **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.

- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:
- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.

- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.
  - 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with (as may be applicable during the term) either Bonneville Power Administration's or Wasco Electric Cooperative's electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period (provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date) plus any reasonable costs incurred by PGE to purchase

replacement power and/or transmission to deliver the replacement power to the Point of Delivery (For Start-Up Lost Energy Value See 1.35).

1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:

MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)

- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: https://www.theice.com/products/OTC/Physical-Energy/Electricity. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.

- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.
- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture

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not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Mid-C Index Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours and Off-Peak Hours in each day.
- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).

- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

# SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
- 2.2.1. By thirty-five (35) months\_after the Effective Date Seller shall begin initial deliveries of Net Output; and
- 2.2.2. By the third calendar-year anniversary of the Effective Date, *subject to Section 2.2.3 below*, Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
- 2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.
- 2.3. This Agreement shall terminate on the completion of the last day of the the twentieth contract year, or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").

### SECTION 3: REPRESENTATIONS AND WARRANTIES

3.1. Seller and PGE represent, covenant, and warrant as follows:

- 3.1.1. Seller warrants it is a Limited Liability Corporation duly organized under the laws of Delaware.
- 3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
- 3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
- 3.1.4. Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
- 3.1.6. Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8. Seller warrants that Net Dependable Capacity of the Facility is \_(during periods of peak local solar resource availability)\_9,920\_\_ kW.
- 3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is 18,500,000 kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):

- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of 27,000,000 kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.
- 3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005

through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

### SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- 4.4. Seller shall provide preschedules for all deliveries of energy hereunder. including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The Parties' respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5. During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of

this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

### SECTION 5: OPERATION AND CONTROL

- 5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

### SECTION 6: CREDITWORTHINESS

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably

acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

# SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

### SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for two consecutive Contract Years or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
  - 8.1.6. Seller's failure to meet the Commercial Operation Date.
- 8.2. In the event of a default under Section 8.1.6, PGE may provide Seller with written notice of default. Seller shall have one year in which to cure the default during which time the Seller shall pay PGE damages equal to the Lost Energy Value. If Seller

is unable to cure the default, PGE may immediately terminate this Agreement as provided in Section 8.3. PGE's resource sufficiency/deficiency position shall have no bearing on PGE's right to terminate the Agreement under this Section 8.2.

- 8.3. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.5. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.6. Sections 8.1, 8.4, 8.5, 10, and 19.2 shall survive termination of this Agreement.

### **SECTION 9: TRANSMISSION CURTAILMENTS**

- 9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.
- 9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

# SECTION 10: INDEMNIFICATION AND LIABILITY

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

# SECTION 11: INSURANCE

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of

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insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- 11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

### SECTION 12: FORCE MAJEURE

12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect

the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

### SECTION 13: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

### SECTION 14: CHOICE OF LAW

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations

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concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

### **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

### SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

# SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

### SECTION 19: ENTIRE AGREEMENT

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

### **SECTION 20: NOTICES**

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in

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person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller: Wasco Solar I LLC

c/o Jacob Stephens 3033 E Hawthorne St Tucson, AZ 85716

with a copy to: Stephane Nguyen

c/o Reed Smith

1901 Avenue of the Stars #700 Los Angeles, CA 90067-6078

To PGE: Contracts Manager

QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204

20.2 The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 20.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in their respective names as of the Effective Date.

PGE
Ву:
Name:
Title:
Date:
WASCO SOLAR I LLC
(Name Seller) By:
Name: Jacob Stephens Title: Authorized Representative Date:

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# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

Wasco Solar I is a photovoltaics-based solar generating facility which upon reaching full commercial operations have nameplate capacity of 10 MW-AC net output at the point of interconnection subject to available solar energy input. The facility will consist of the following primary equipment:

- 1. PV Modules Commercially-available photovoltaic modules for utility-scale DC energy production. Nominal per module DC production rating of 350W +/-50W-DC. Qty <= [14MM/(module rating)].
- 2. Inverter AC Generator Units: Commercially-available string inverter (90kW-AC, nominal) convert DC to AC power, collected by AC wiring to switchboard. Each such collected aggregation of inverters shall constitute a single sub-generator for the facility, which once all aggregated shall constitute the entire generator for the facility.
- 3. Pad-mounted transformers: for each sub-generator shall transform inverter output voltage to plant AC collection voltage (12.47 KV, nominally)
- 4. Racking systems, commercially-available, will mount the PV Modules and direct them and control their angle to receive light from the sun. Racking systems will be arranged in generally uniform rows on the facility site.
  - 5. Additional interconnection, transformation, switching, storage, metering, communications, tie-line, and meteorological observations facilities as may be required, subject to final interconnection, permitting, and design requirements. **EXHIBIT B**

### REQUIRED FACILITY DOCUMENTS

- Seller's Generation Interconnection Agreement
- 2. Wasco County CUP & Building Permits
- BPA: Transmission Service Agreement
- 4. EFSC Site Certificate (if final project footprint > 100 acres)

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5. Additional as may be determined by Seller to be required for facility permitting, construction, and interconnection.

# EXHIBIT C START-UP TESTING

## Seller-identified start-up tests

As part of the start-up of Facility, Seller will perform the following tests, in addition to any further tests deemed required in coordination with EPC contractor (the Facility's manufacturer) and primary supply vendors (PV modules, inverters, transformers) and interconnecting utility. This will include required factory checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable). This will include required start-up tests and checks which necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Validation of mechanical assembly completion for sign-off on EPC vendor warranty of mechanical completion and workmanship, including racking system, wiring (module connections, DC collection, string terminations, inverter connections to collected strings, AC delivery to switchboard and step-up/collection transformers, and AC collection system deliver to interconnection facilities), inverter mounting, and module installation.
- 2. Electrical performance validation by facility PV string and sub-generator, per insolation input, including:
  - a) DC wiring inputs to inverters
  - b) AC wiring delivery to transformers
- 3. Inverter Commissioning, per manufacturer specifications, including commissioning report;
- 4. Facility daily start-up and shut-down automation confirmed;
- 5. Energization of transformers;
- 6. Full system performance test;
- 7. Interconnection facilities: Commissioning of on-site, tie-line, and off-site interconnection facilities (as applicable), including switchyard, substation, breakers, and metering equipment (as applicable), in coordination with interconnecting utility and performing electrical contractor;
- 8. Cataloguing of installed equipment on-site, including primary equipment serial numbers and manufacturer information for O&M documentation;
- 9. Complete pre-parallel checks with PGE;
- 10. Test energy delivery and metering checks.
- 11. Excitation and voltage regulation operation tests per insolation inputs.
- 12. Meteorological station commissioning and report;
- 13. Facility communications equipment commissioning and report; and
- 14. Other tests as may be required by equipment manufacturers.

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# EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

# UM 1931 PGE Exhibit 206

Attachment #2 to mail in exhibit 204
PGE's Schedule 201 Avoided Cost Power Purchase Information
which is Exhibit D to the PPA

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

### **PURPOSE**

To provide information about Standard Avoided Costs and Renewable Avoided Costs, Standard Power Purchase Agreements (PPA) and Negotiated PPAs, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

### AVAILABLE

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

### PPA

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a PPA with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

Effective for service on and after September 23, 2015

### PPA (Continued)

Any Seller may elect to negotiate a PPA with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on either the filed Standard Avoided Costs or Renewable Avoided Costs in effect at that time.

### STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

### GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

Effective for service on and after September 23, 2015

### OFF-SYSTEM PPA

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a PPA with the Company after following the applicable Standard or Negotiated PPA guidelines and making the arrangements necessary for transmission of power to the Company's system.

### **BASIS FOR POWER PURCHASE PRICE**

### AVOIDED COST SUMMARY

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

### ON-PEAK PERIOD

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

### 1) Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

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PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15.

Effective for service on and after September 23, 2015

					T.	ABLE 1a						
					Avo	ided Cos	ts					
			St	andard F	ixed Pric	e Option	for Base	Load QF	•			
				0	n-Peak F	orecast (	\$/MWH)					:
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	78.37	78.12	73.80	72.86	73.01	73.16	73.31	73.46	73.62	73.77	75.78	77.10
2022	79.60	79.78	78.44	76.48	76.26	76.34	76.50	76.67	76.84	77.48	80.21	81.34
2023	82.63	82.66	80.27	78.81	78.21	78.22	78.39	78.56	78.73	79.46	82.18	83.13
2024	84.81	84.26	82.55	80.80	80.00	79.66	79.83	80.00	80.18	81.44	83.71	84.67
2025	87.20	86.76	84.95	83.60	83.30	83.50	83.68	83.88	84.08	84.75	87.87	88.86
2026	93.47	93.69	92.94	91.35	91.11	91.34	91.57	91.80	92.04	92.84	96.16	96.79
2027	98.73	98.97	93.85	92.24	91.99	92.22	92.45	92.67	92.91	93.60	96.95	98.01
2028	99.42	99.66	95.01	93.41	93.16	93.39	93.62	93.85	94.09	94.79	98.30	99.38
2029	101.94	101.29	98.21	96.29	95.84	96.08	96.31	96.55	96.80	97.53	100.99	103.20
2030	104.26	103.91	99.35	97.50	97.22	97.47	97.70	97.94	98.19	98.93	102.45	105.78
2031	105.82	105.51	101.80	99.52	99.21	99.46	99.70	99.95	100.20	100.96	104.54	105.68
2032	107.60	107.29	103.51	101.18	100.86	101.12	101.36	101.61	101.87	102.64	106.30	107.46
2033	110.10	109.78	105.92	103.55	103.23	103.49	103.74	103.99	104.26	105.04	108.77	109.96
2034	112.39	112.07	108.14	105.72	105.39	105.66	105.91	106.17	106.44	107.24	111.04	112.25
2035	114.61	114.28	110.27	107.80	107.47	107.74	108.00	108.27	108.54	109.36	113.23	114.47
2036	117.00	116.66	112.57	110.05	109.71	109.99	110.26	110.53	110.81	111.64	115.59	116.85
2037	119.76	119.42	115.25	112.68	112.34	112.62	112.89	113.16	113.45	114.30	118.33	119.61
2038	122.43	122.09	117.83	115.21	114.86	115.15	115.42	115.70	116.00	116.86	120.97	122.28
2039	124.98	124.63	120.29	117.62	117.26	117.55	117.83	118.12	118.42	119.30	123.49	124.82
2040	127.87	127.51	123.09	120.36	119.99	120.29	120.58	120.87	121.18	122.08	126.35	127.71

					T/	ABLE 1b						
						ided Cost	ts					
			Sta	andard F	ixed Price	e Option	for Base	Load QF				
				0	ff-Peak F	orecast (	\$/MWH)		<del></del>			
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2021	40.14	39.89	35.57	34.63	34.78	34.93	35.08	35.23	35.39	35.54	37.55	38.87
2022	40.62	40.79	39.46	37.50	37.28	37.35	37.52	37.68	37.85	38.49	41.22	42.36
2023	42.75	42.77	40.39	38.92	38.33	38.34	38.51	38.68	38.85	39.58	42.30	43.25
2024	44.40	43.85	42.14	40.39	39.59	39.25	39.42	39.59	39.77	41.03	43.30	44.26
2025	45.86	45.42	43.61	42.26	41.96	42.16	42.35	42.54	42.74	43.41	46.53	47.52
2026	51.31	51.54	50.79	49.19	48.95	49.19	49.41	49.65	49.89	50.69	54.00	54.64
2027	55.74	55.98	50.87	49.26	49.00	49.24	49.46	49.69	49.93	50.62	53.97	55.02
2028	55.58	55.83	51.18	49.58	49.32	49.56	49.78	50.01	50.25	50.96	54.47	55.54
2029	57.23	56.59	53.51	51.59	51.14	51.38	51.61	51.85	52.10	52.83	56.29	58.50
2030	58.68	58.33	53.77	51.92	51.63	51.88	52.12	52.36	52.61	53.35	56.87	60.20
2031	59.33	59.03	55.32	53.04	52.73	52.98	53.22	53.46	53.72	54.48	58.06	59.20
2032	60.50	60.19	56.41	54.08	53.76	54.02	54.26	54.51	54.77	55.54	59.20	60.36
2033	61.76	61.44	57.59	55.21	54.89	55.15	55.40	55.66	55.92	56.71	60.43	61.62
2034	62.95	62.62	58.69	56.27	55.94	56.21	56.46	56.72	56.99	57.80	61.59	62.80
2035	64.35	64.02	60.01	57.54	57.21	57.48	57.74	58.00	58.28	59.10	62.97	64.20
2036	65.90	65.57	61.48	58.96	58.62	58.90	59.16	59.43	59.72	60.55	64.50	65.76
2037	67.50	67.15	62.99	60.42	60.07	60.35	60.62	60.90	61.18	62.03	66.06	67.34
2038	69.14	68.79	64.54	61.92	61.56	61.85	62.12	62.41	62.70	63.57	67.67	68.98
2039	70.63	70.28	65.94	63.27	62.91	63.20	63.48	63.77	64.07	64.95	69.14	70.47
2040	72.44	72.08	67.66	64.94	64.57	64.87	65.16	65.45	65.75	66.65	70.93	72.28

					T/	ABLE 2a						
						ded Cost	s					
				Standard	I Fixed P	rice Optic	on for Wi	nd QF				
				0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.37	21.37	22.37	18.12	19.12	21.37	29.37	30.97	25.87	23.62	25.12	29.37
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32.42	28.38	27.13	28.13	30.59
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98
2019	34.07	32.33	28.56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	34.73	37.74
2020	36.21	34.36	30.37	28.53	27.62	25.35	36.82	42.47	37.23	35.61	36.91	40.10
2021	37.82	37.58	33.25	32.31	32.46	32.62	32.76	32.91	33.07	33.22	35.23	36.56
2022	38.26	38.43	37.10	35.14	34.92	34.99	35.15	35.32	35.49	36.13	38.86	40.00
2023	40.34	40.37	37.98	36.52	35.92	35.93	36.10	36.27	36.45	37.18	39.89	40.84
2024	41.93	41.38	39.67	37.92	37.12	36.78	36.95	37.12	37.30	38.56	40.83	41.79
2025	43.34	42.91	41.10	39.75	39.45	39.65	39.83	40.03	40.23	40.90	44.02	45.01
2026	48.75	48.97	48.22	46.63	46.39	46.63	46.85	47.08	47.32	48.12	51.44	52.08
2027	53.13	53.37	48.25	46.65	46.39	46.63	46.85	47.08	47.32	48.01	51.36	52.41
2028	52.92	53.17	48.52	46.92	46.66	46.90	47.12	47.35	47.59	48.30	51.81	52.88
2029	54.52	53.88	50.79	48.87	48.42	48.66	48.90	49.14	49.38	50.11	53.58	55.79
2030	55.92	55.57	51.00	49.16	48.87	49.12	49.36	49.60	49.85	50.59	54.11	57.44
2031	56.52	56.21	52.51	50.22	49.91	50.16	50.40	50.65	50.90	51.66	55.24	56.38
2032	57.60	57.29	53.51	51.18	50.87	51.12	51.37	51.62	51.88	52.65	56.30	57.46
2033	58.83	58.51	54.66	52.28	51.96	52.22	52.47	52.72	52.99	53.78	57.50	58.69
2034	59.96	59.64	55.70	53.28	52.95	53.22	53.48	53.73	54.01	54.81	58.61	59.81
2035	61.30	60.97	56.96	54.49	54.16	54.43	54.69	54.95	55.23	56.05	59.92	61.16
2036	62.79	62.46	58.37	55.85	55.51	55.78	56.05	56.32	56.60	57.43	61.38	62.64
2037	64.33	63.99	59.82	57.25	56.90	57.19	57.45	57.73	58.02	58.87	62.90	64.18
2038	65.90	65.55	61.30	58.68	58.33	58.62	58.89	59.17	59.46	60.33	64.44	65.74
2039	67.33	66.97	62.64	59.97	59.60	59.90	60.18	60.46	60.76	61.65	65.84	67.17
2040	69.09	68.72	64.30	61.58	61.21	61.51	61.80	62.09	62.39	63.29	67.57	68.92

					TA	ABLE 2b						
					Avoi	ded Cost	ts					
				Standard	I Fixed P	rice Optic	on for Wi	nd QF				
			<del></del>	0	ff-Peak F	orecast (	\$/MWH)					
								_				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	23.12	16.62	17.12	12.12	14.12	15.37	20.12	22.37	21.87	19.37	21.62	24.62
2016	23.22	22.15	19.48	14.70	12.81	9.59	19.29	23.90	21.67	23.46	24.13	26.27
2017	26.36	25.15	22.13	17.56	15.32	11.52	21.46	26.58	24.11	26.02	26.76	29.12
2018	28.61	27.30	24.04	18.21	15.90	11.97	23.81	29.44	26.72	28.90	29.72	32.33
2019	30.35	28.97	25.52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29
2020	32.76	31.27	27.57	20.93	18.31	13.84	27.30	33.70	30.60	33.09	34.02	36.99
2021	35.91	35.66	31.34	30.40	30.55	30.70	30.85	31.00	31.16	31.31	33.32	34.64
2022	36.31	36.48	35.15	33.19	32.97	33.04	33.21	33.37	33.54	34.18	36.91	38.05
2023	38.35	38.37	35.99	34.52	33.93	33.94	34.11	34.28	34.45	35.18	37.90	38.85
2024	39.91	39.36	37.65	35.90	35.10	34.76	34.93	35.10	35.28	36.54	38.81	39.77
2025	41.28	40.84	39.03	37.68	37.38	37.58	37.77	37.96	38.16	38.83	41.95	42.94
2026	46.64	46.87	46.12	44.52	44.28	44.52	44.74	44.98	45.22	46.02	49.33	49.97
2027	50.98	51.22	46.11	44.50	44.24	44.48	44.70	44.93	45.17	45.86	49.21	50.26
2028	50.73	50.98	46.33	44.73	44.47	44.71	44.93	45.16	45.40	46.11	49.62	50.69
2029	52.28	51.64	48.56	46.64	46.19	46.43	46.66	46.90	47.15	47.88	51.34	53.55
2030	53.64	53.29	48.73	46.88	46.59	46.84	47.08	47.32	47.57	48.31	51.83	55.16
2031	54.19	53.89	50.18	47.90	47.59	47.84	48.08	48.32	48.58	49.34	52.92	54.06
2032	55.25	54.94	51.16	48.83	48.51	48.77	49.01	49.26	49.52	50.29	53.95	55.11
2033	56.41	56.09	52.24	49.86	49.54	49.80	50.05	50.31	50.57	51.36	55.08	56.27
2034	57.49	57.16	53.23	50.81	50.48	50.75	51.00	51.26	51.53	52.34	56.13	57.34
2035	58.79	58.46	54.45	51.98	51.65	51.92	52.18	52.44	52.72	53.54	57.41	58.64
2036	60.23	59.90	55.81	53.29	52.95	53.23	53.49	53.76	54.05	54.88	58.83	60.09
2037	61.72	61.37	57.21	54.64	54.29	54.57	54.84	55.12	55.40	56.25	60.28	61.56
2038	63.24	62.89	58.64	56.02	55.66	55.95	56.22	56.51	56.80	57.67	61.77	63.08
2039	64.61	64.26	59.92	57.25	56.89	57.18	57.46	57.75	58.05	58.93	63.12	64.45
2040	66.31	65.95	61.53	58.81	58.44	58.74	59.03	59.32	59.62	60.52	64.80	66.15

					T/	ABLE 3a						
					Avoi	ded Cost	ts					
							on for So	lar QF				
				0	n-Peak F	orecast (	\$/MWH)					
		F. b.	B.4	A	88		la al	A	0	Oat	Nierr	D
Year	Jan	Feb	Mar	Apr	May	Jun 25.42	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13 26.93	21.88 25.51	22.88	25.13	33.13	34.73 36.26	29.63 32.22	27.38	28.88	33.13
2016	31.43	30.01			24.81	23.06	31.90			30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	42.05	41.81	37.48	36.54	36.69	36.85	36.99	37.14	37.30	37.45	39.46	40.79
2022	42.57	42.74	41.41	39.45	39.23	39.30	39.46	39.63	39.80	40.44	43.17	44.31
2023	44.74	44.77	42.38	40.92	40.32	40.33	40.50	40.67	40.85	41.58	44.29	45.24
2024	46.42	45.87	44.16	42.41	41.61	41.27	41.44	41.61	41.79	43.05	45.32	46.28
2025	47.92	47.49	45.68	44.33	44.03	44.23	44.41	44.61	44.81	45.48	48.60	49.59
2026	53.42	53.64	52.89	51.30	51.06	51.30	51.52	51.75	51.99	52.79	56.11	56.75
2027	57.89	58.13	53.01	51.41	51.15	51.39	51.61	51.84	52.08	52.77	56.12	57.17
2028	57.77	58.02	53.37	51.77	51.51	51.75	51.97	52.20	52.44	53.15	56.66	57.73
2029	59.47	58.83	55.74	53.82	53.37	53.61	53.85	54.09	54.33	55.06	58.53	60.74
2030	60.96	60.61	56.04	54.20	53.91	54.16	54.40	54.64	54.89	55.63	59.15	62.48
2031	61.66	61.35	57.65	55.36	55.05	55.30	55.54	55.79	56.04	56.80	60.38	61.52
2032	62.85	62.54	58.76	56.43	56.12	56.37	56.62	56.87	57.13	57.90	61.55	62.71
2033	64.18	63.86	60.01	57.63	57.31	57.57	57.82	58.07	58.34	59.13	62.85	64.04
2034	65.42	65.10	61.16	58.74	58.41	58.68	58.94	59.19	59.47	60.27	64.07	65.27
2035	66.86	66.53	62.52	60.05	59.72	59.99	60.25	60.51	60.79	61.61	65.48	66.72
2036	68.46	68.13	64.04	61.52	61.18	61.45	61.72	61.99	62.27	63.10	67.05	68.31
2037	70.11	69.77	65.60	63.03	62.68	62.97	63.23	63.51	63.80	64.65	68.68	69.96
2038	71.80	71.45	67.20	64.58	64.23	64.52	64.79	65.07	65.36	66.23	70.34	71.64
2039	73.35	72.99	68.66	65.99	65.62	65.92	66.20	66.48	66.78	67.67	71.86	73.19
2040	75.22	74.85	70.43	67.71	67.34	67.64	67.93	68.22	68.52	69.42	73.70	75.05

					T/	ABLE 3b						
					Avoi	ided Cost	s					
				Standard	Fixed P	rice Optic	on for So	lar QF				
				0	ff-Peak F	orecast (	\$/MWH)	<del></del>			<del>-</del>	
34	•	F. I.	n		8.8					0.4	81	
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2021	40.14	39.89	35.57	34.63	34.78	34.93	35.08	35.23	35.39	35.54	37.55	38.87
2022	40.62	40.79	39.46	37.50	37.28	37.35	37.52	37.68	37.85	38.49	41.22	42.36
2023	42.75	42.77	40.39	38.92	38.33	38.34	38.51	38.68	38.85	39.58	42.30	43.25
2024	44.40	43.85	42.14	40.39	39.59	39.25	39.42	39.59	39.77	41.03	43.30	44.26
2025	45.86	45.42	43.61	42.26	41.96	42.16	42.35	42.54	42.74	43.41	46.53	47.52
2026	51.31	51.54	50.79	49.19	48.95	49.19	49.41	49.65	49.89	50.69	54.00	54.64
2027	55.74	55.98	50.87	49.26	49.00	49.24	49.46	49.69	49.93	50.62	53.97	55.02
2028	55.58	55.83	51.18	49.58	49.32	49.56	49.78	50.01	50.25	50.96	54.47	55.54
2029	57.23	56.59	53.51	51.59	51.14	51.38	51.61	51.85	52.10	52.83	56.29	58.50
2030	58.68	58.33	53.77	51.92	51.63	51.88	52.12	52.36	52.61	53.35	56.87	60.20
2031	59.33	59.03	55.32	53.04	52.73	52.98	53.22	53.46	53.72	54.48	58.06	59.20
2032	60.50	60.19	56.41	54.08	53.76	54.02	54.26	54.51	54.77	55.54	59.20	60.36
2033	61.76	61.44	57.59	55.21	54.89	55.15	55.40	55.66	55.92	56.71	60.43	61.62
2034	62.95	62.62	58.69	56.27	55.94	56.21	56.46	56.72	56.99	57.80	61.59	62.80
2035	64.35	64.02	60.01	57.54	57.21	57.48	57.74	58.00	58.28	59.10	62.97	64.20
2036	65.90	65.57	61.48	58.96	58.62	58.90	59.16	59.43	59.72	60.55	64.50	65.76
2037	67.50	67.15	62.99	60.42	60.07	60.35	60.62	60.90	61.18	62.03	66.06	67.34
2038	69.14	68.79	64.54	61.92	61.56	61.85	62.12	62.41	62.70	63.57	67.67	68.98
2039	70.63	70.28	65.94	63.27	62.91	63.20	63.48	63.77	64.07	64.95	69.14	70.47
2040	72.44	72.08	67.66	64.94	64.57	64.87	65.16	65.45	65.75	66.65	70.93	72.28

PRICING OPTIONS FOR STANDARD PPA (Continued)

# 2) Renewable Fixed Price Option

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company during the Renewable Resource Deficiency Period.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15.

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

					T	ABLE 4a						
				F	Renewabl	e Avoide	d Costs					
			Rer	newable l	Fixed Price	ce Option	for Base	e Load Q	F			
				0	n-Peak F	orecast (	\$/MWH)	·				
		F.4	B.4	A	B.8	1	11	Δ	0	0-4	Nan	Des
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015 2016	31.13 31.43	25.13 30.01	26.13 26.93	21.88 25.51	22.88 24.81	25.13 23.06	33.13 31.90	34.73 36.26	29.63 32.22	27.38 30.97	28.88 31.97	33.13 34.43
2016	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2017	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2019	125.74	126.53	125.41	127.03	140.05	145.57	127.38	130.51	126.75	126.47	126.82	126.50
2020	128.18	120.33	123.41	130.15	141.81	143.37	129.70	133.53	120.73	129.92	120.02	120.30
2021	130.93	131.03	130.40	132.22	146.90	151.40	130.33	135.07	131.40	132.68	131.64	131.28
2022	133.78	133.52	132.29	134.63	149.40	154.53	133.27	136.99	134.07	135.33	134.05	134.61
2024	135.86	136.38	135.36	136.28	146.93	155.96	135.98	140.58	138.31	137.11	136.55	136.70
2025	138.62	138.64	137.83	139.58	150.44	158.68	138.76	145.07	140.30	139.79	139.31	139.77
2026	140.87	141.39	139.68	141.34	152.50	159.44	142.48	146.95	142.42	141.35	141.73	141.93
2027	143.35	143.68	141.92	144.13	156.12	161.22	143.98	150.23	144.81	144.21	143.23	143.91
2028	145.59	145.24	143.77	146.24	154.86	164.58	146.34	151.58	146.46	147.03	145.51	146.47
2029	148.52	148.11	146.70	148.71	156.81	166.96	149.67	154.97	151.19	148.80	148.14	148.56
2030	150.70	150.10	149.63	151.33	158.53	171.27	151.96	157.20	152.65	150.63	150.43	151.36
2031	153.13	152.24	151.91	153.77	160.72	172.88	154.08	160.45	154.91	153.55	152.94	154.66
2032	155.39	155.13	153.42	156.21	163.63	173.43	156.94	163.70	156.96	155.52	155.35	156.18
2033	159.11	157.29	156.26	159.12	166.65	175.17	159.51	166.08	159.59	158.06	158.73	159.11
2034	162.00	160.14	158.93	162.71	168.39	179.93	162.85	168.61	162.36	161.53	161.50	162.49
2035	165.29	162.52	161.82	165.46	170.12	180.84	166.22	172.80	165.75	163.86	164.19	165.36
2036	167.06	164.63	164.72	168.74	172.98	183.24	169.29	177.62	168.66	165.76	166.45	167.44
2037	169.87	168.42	167.79	172.22	176.16	185.49	173.84	181.72	173.07	168.66	170.66	170.35
2038	173.31	171.82	170.94	175.63	180.61	188.47	176.69	185.88	174.80	172.08	173.45	173.29
2039	176.00	174.40	173.68	177.96	184.42	192.12	178.50	185.19	176.58	175.25	176.42	176.04
2040	178.64	177.31	176.42	181.75	186.84	195.04	182.42	188.36	179.69	178.02	179.69	179.60

Effective for service on and after September 23, 2015

					T/	ABLE 4b						
				F	Renewabl	e Avoide	d Costs					
			Rer	newable l	Fixed Pric	e Option	for Base	Load Q	F			
			·	0	ff-Peak F	orecast (	\$/MWH)		·		,	
									_			_
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	68.58	67.81	70.03	66.95	51.47	41.59	66.31	63.57	67.34	67.56	68.43	67.52
2021	71.70	70.03	70.67	68.13	54.41	44.45	68.58	64.91	68.43	69.50	69.36	69.20
2022	72.83	72.10	72.50	70.14	52.58	43.90	73.59	66.03	71.26	70.61	70.94	71.27
2023	74.08	73.80	75.03	73.19	51.34	44.74	74.72	68.53	72.72	72.11	72.75	73.03
2024	74.27	73.88	76.02	73.85	58.94	50.44	74.10	67.73	72.49	72.53	73.47	74.32
2025	76.37	76.84	78.49	75.22	60.00	52.58	76.18	69.30	74.23	74.75	76.80	74.78
2026	78.55	78.33	81.13	78.05	64.87	53.28	76.32	71.90	76.57	77.89	78.72	77.07
2027	81.57	80.52	82.48	79.59	65.36	56.20	79.64	72.83	78.65	80.47	80.82	79.73
2028	83.33	83.05	84.80	82.68	69.45	56.44	82.37	73.98	81.24	81.50	82.54	82.21
2029	84.45	85.45	86.98	85.41	72.98	59.37	84.03	75.52	82.32	84.06	85.12	85.43
2030	87.14	88.37	89.47	86.42	76.31	62.56	85.40	78.15	85.83	87.25	87.66	87.28
2031	89.62	91.21	92.09	88.87	79.11	66.01	88.30	81.26	87.31	89.03	90.93	87.50
2032	91.36	92.90	94.09	90.37	81.83	66.80	89.22	81.75	89.34	92.12	91.54	90.26
2033	94.30	96.19	97.29	93.45	84.73	71.50	93.78	83.69	92.81	95.63	94.00	93.33
2034	96.65	98.62	99.97	95.91	86.88	71.32	95.58	86.58	95.37	97.26	96.55	96.04
2035	97.26	101.39	102.07	98.18	90.58	76.12	97.06	86.87	97.82	99.24	98.90	98.15
2036	100.30	103.84	104.15	98.13	92.11	81.09	97.21	87.79	98.23	102.10	102.08	99.77
2037	103.90	106.19	107.32	100.80	96.72	82.63	98.42	89.65	99.63	105.58	103.83	103.24
2038	106.63	108.17	109.11	102.76	97.37	85.19	101.14	90.69	103.90	108.20	105.75	105.85
2039	109.65	111.37	112.13	106.34	98.97	86.96	106.48	96.20	108.22	110.60	108.44	108.86
2040	112.13	113.43	114.50	108.34	100.07	89.08	107.33	97.98	110.92	112.29	110.09	110.91

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

					T	ABLE 5a						
				F	Renewabl	e Avoide	d Costs					
			F	Renewab	le Fixed F	Price Opt	ion for W	/ind QF				
				0	n-Peak F	orecast (	\$/MWH)	·			·	
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.37	21.37	22.37	18.12	19.12	21.37	29.37	30.97	25.87	23.62	25.12	29.37
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32.42	28.38	27.13	28.13	30.59
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98
2019	34.07	32.33	28.56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	34.73	37.74
2020	85.86	86.65	85.54	87.16	100.18	105.69	87.50	90.64	86.87	86.60	86.95	86.62
2021	87.40	88.23	87.41	89.37	101.03	106.68	88.92	92.76	89.15	89.14	88.47	88.47
2022	89.35	89.45	88.82	90.65	105.32	109.82	88.76	93.49	89.83	91.11	90.06	89.71
2023	91.25	91.00	89.77	92.10	106.88	112.00	90.75	94.46	91.55	92.81	91.53	92.08
2024	92.74	93.26	92.24	93.16	103.81	112.84	92.86	97.46	95.19	93.99	93.43	93.58
2025	94.53	94.55	93.74	95.49	106.35	114.59	94.67	100.98	96.21	95.70	95.22	95.68
2026	95.91	96.43	94.72	96.38	107.54	114.49	97.52	101.99	97.46	96.39	96.77	96.97
2027	97.49	97.83	96.07	98.27	110.27	115.36	98.12	104.38	98.96	98.36	97.37	98.06
2028	98.83	98.49	97.01	99.48	108.10	117.82	99.59	104.83	99.70	100.27	98.75	99.71
2029	100.84	100.43	99.01	101.03	109.12	119.27	101.99	107.29	103.51	101.12	100.45	100.88
2030	102.09	101.49	101.02	102.72	109.91	122.66	103.35	108.59	104.04	102.01	101.81	102.75
2031	103.55	102.66	102.33	104.19	111.14	123.30	104.50	110.88	105.33	103.98	103.36	105.08
2032	105.12	104.87	103.15	105.94	113.37	123.17	106.67	113.43	106.70	105.25	105.09	105.92
2033	107.55	105.73	104.70	107.57	115.10	123.61	107.96	114.52	108.04	106.50	107.17	107.56
2034	109.28	107.42	106.21	109.99	115.67	127.21	110.13	115.89	109.64	108.81	108.77	109.77
2035	111.68	108.91	108.21	111.85	116.51	127.23	112.61	119.19	112.14	110.25	110.58	111.75
2036	112.55	110.12	110.20	114.23	118.47	128.73	114.78	123.11	114.15	111.25	111.94	112.93
2037	114.13	112.67	112.05	116.48	120.41	129.75	118.09	125.98	117.33	112.92	114.91	114.61
2038	116.47	114.98	114.10	118.79	123.77	131.63	119.85	129.04	117.96	115.24	116.60	116.45
2039	118.03	116.44	115.72	119.99	126.46	134.15	120.53	127.22	118.62	117.28	118.45	118.07
2040	119.52	118.20	117.31	122.64	127.73	135.93	123.31	129.24	120.58	118.91	120.58	120.48

Effective for service on and after September 23, 2015

					TA	ABLE 5b						
				F	Renewable	e Avoide	d Costs					
			F	Renewab	le Fixed F	rice Opt	ion for W	ind QF				
			;	0	ff-Peak F	orecast (	\$/MWH)		·		<del></del>	,
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	23.12	16.62	17.12	12.12	14.12	15.37	20.12	22.37	21.87	19.37	21.62	24.62
2016	23.22	22.15	19.48	14.70	12.81	9.59	19.29	23.90	21.67	23.46	24.13	26.27
2017	26.36	25.15	22.13	17.56	15.32	11.52	21.46	26.58	24.11	26.02	26.76	29.12
2018	28.61	27.30	24.04	18.21	15.90	11.97	23.81	29.44	26.72	28.90	29.72	32.33
2019	30.35	28.97	25.52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29
2020	64.43	63.66	65.88	62.80	47.32	37.44	62.16	59.42	63.19	63.41	64.28	63.37
2021	67.47	65.80	66.44	63.90	50.18	40.22	64.35	60.68	64.20	65.27	65.13	64.97
2022	68.52	67.79	68.19	65.83	48.27	39.59	69.28	61.72	66.95	66.30	66.63	66.96
2023	69.68	69.40	70.63	68.79	46.94	40.34	70.32	64.13	68.32	67.71	68.35	68.63
2024	69.78	69.39	71.53	69.36	54.45	45.95	69.61	63.24	68.00	68.04	68.98	69.83
2025	71.80	72.27	73.92	70.65	55.43	48.01	71.61	64.73	69.66	70.18	72.23	70.21
2026	73.89	73.67	76.47	73.39	60.21	48.62	71.66	67.24	71.91	73.23	74.06	72.41
2027	76.81	75.76	77.72	74.83	60.60	51.44	74.88	68.07	73.89	75.71	76.06	74.97
2028	78.48	78.20	79.95	77.83	64.60	51.59	77.52	69.13	76.39	76.65	77.69	77.36
2029	79.50	80.50	82.03	80.46	68.03	54.42	79.08	70.57	77.37	79.11	80.17	80.48
2030	82.10	83.33	84.43	81.38	71.27	57.52	80.36	73.11	80.79	82.21	82.62	82.24
2031	84.48	86.07	86.95	83.73	73.97	60.87	83.16	76.12	82.17	83.89	85.79	82.36
2032	86.12	87.66	88.85	85.13	76.59	61.56	83.98	76.51	84.10	86.88	86.30	85.02
2033	88.95	90.84	91.94	88.10	79.38	66.15	88.43	78.34	87.46	90.28	88.65	87.98
2034	91.20	93.17	94.52	90.46	81.43	65.87	90.13	81.13	89.92	91.81	91.10	90.59
2035	91.70	95.83	96.51	92.62	85.02	70.56	91.50	81.31	92.26	93.68	93.34	92.59
2036	94.63	98.17	98.48	92.46	86.44	75.42	91.54	82.12	92.56	96.43	96.41	94.10
2037	98.12	100.41	101.54	95.02	90.94	76.85	92.64	83.87	93.85	99.80	98.05	97.46
2038	100.74	102.28	103.22	96.87	91.48	79.30	95.25	84.80	98.01	102.31	99.86	99.96
2039	103.64	105.36	106.12	100.33	92.96	80.95	100.47	90.19	102.21	104.59	102.43	102.85
2040	106.00	107.30	108.37	102.21	93.94	82.95	101.20	91.85	104.79	106.16	103.96	104.78

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

		***************************************		***************************************	T.	ABLE 6a						
				F	Renewabl	e Avoide	d Costs					
			F		le Fixed I			olar QF				
			:	0	n-Peak F	orecast (	\$/MWH)	:			:	
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	90.01	90.80	89.69	91.31	104.33	109.84	91.65	94.79	91.02	90.75	91.10	90.77
2021	91.63	92.46	91.64	93.60	105.26	110.91	93.15	96.99	93.38	93.37	92.70	92.70
2022	93.66	93.76	93.13	94.96	109.63	114.13	93.07	97.80	94.14	95.42	94.37	94.02
2023	95.65	95.40	94.17	96.50	111.28	116.40	95.15	98.86	95.95	97.21	95.93	96.48
2024	97.23	97.75	96.73	97.65	108.30	117.33	97.35	101.95	99.68	98.48	97.92	98.07
2025	99.10	99.12	98.31	100.06	110.92	119.16	99.24	105.55	100.78	100.27	99.79	100.25
2026	100.57	101.09	99.38	101.04	112.20	119.15	102.18	106.65	102.12	101.05	101.43	101.63
2027	102.25	102.59	100.83	103.03	115.03	120.12	102.88	109.14	103.72	103.12	102.13	102.82
2028	103.68	103.34	101.86	104.33	112.95	122.67	104.44	109.68	104.55	105.12	103.60	104.56
2029	105.79	105.38	103.96	105.98	114.07	124.22	106.94	112.24	108.46	106.07	105.40	105.83
2030	107.13	106.53	106.06	107.76	114.95	127.70	108.39	113.63	109.08	107.05	106.85	107.79
2031	108.69	107.80	107.47	109.33	116.28	128.44	109.64	116.02	110.47	109.12	108.50	110.22
2032	110.36	110.11	108.39	111.18	118.61	128.41	111.91	118.67	111.94	110.49	110.33	111.16
2033	112.90	111.08	110.05	112.92	120.45	128.96	113.31	119.87	113.39	111.85	112.52	112.91
2034	114.73	112.87	111.66	115.44	121.12	132.66	115.58	121.34	115.09	114.26	114.22	115.22
2035	117.24	114.47	113.77	117.41	122.07	132.79	118.17	124.75	117.70	115.81	116.14	117.31
2036	118.22	115.79	115.87	119.90	124.14	134.40	120.45	128.78	119.82	116.92	117.61	118.60
2037	119.91	118.45	117.83	122.26	126.19	135.53	123.87	131.76	123.11	118.70	120.69	120.39
2038	122.36	120.87	119.99	124.68	129.66	137.52	125.74	134.93	123.85	121.13	122.49	122.34
2039	124.04	122.45	121.73	126.00	132.47	140.16	126.54	133.23	124.63	123.29	124.46	124.08
2040	125.65	124.33	123.44	128.77	133.86	142.06	129.44	135.37	126.71	125.04	126.71	126.61

Effective for service on and after September 23, 2015

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

					TA	ABLE 6b						
				F	Renewable	e Avoide	d Costs					
	********		F	Renewab	le Fixed F	rice Opt	ion for So	olar QF				
				0	ff-Peak F	orecast (	\$/MWH)					
		F.1.	5.4	A	8.4		11	Α	0	0.1	Ni	D
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	68.58	67.81	70.03	66.95	51.47	41.59	66.31	63.57	67.34	67.56	68.43	67.52
2021	71.70	70.03	70.67	68.13	54.41	44.45	68.58	64.91	68.43	69.50	69.36	69.20
2022	72.83	72.10	72.50	70.14	52.58	43.90	73.59	66.03	71.26	70.61	70.94	71.27
2023	74.08	73.80	75.03	73.19	51.34	44.74	74.72	68.53	72.72	72.11	72.75	73.03
2024	74.27	73.88	76.02	73.85	58.94	50.44	74.10	67.73	72.49	72.53	73.47	74.32
2025	76.37	76.84	78.49	75.22	60.00	52.58	76.18	69.30	74.23	74.75	76.80	74.78
2026	78.55	78.33	81.13	78.05	64.87	53.28	76.32	71.90	76.57	77.89	78.72	77.07
2027	81.57	80.52	82.48	79.59	65.36	56.20	79.64	72.83	78.65	80.47	80.82	79.73
2028	83.33	83.05	84.80	82.68	69.45	56.44	82.37	73.98	81.24	81.50	82.54	82.21
2029	84.45	85.45	86.98	85.41	72.98	59.37	84.03	75.52	82.32	84.06	85.12	85.43
2030	87.14	88.37	89.47	86.42	76.31	62.56	85.40	78.15	85.83	87.25	87.66	87.28
2031	89.62	91.21	92.09	88.87	79.11	66.01	88.30	81.26	87.31	89.03	90.93	87.50
2032	91.36	92.90	94.09	90.37	81.83	66.80	89.22	81.75	89.34	92.12	91.54	90.26
2033	94.30	96.19	97.29	93.45	84.73	71.50	93.78	83.69	92.81	95.63	94.00	93.33
2034	96.65	98.62	99.97	95.91	86.88	71.32	95.58	86.58	95.37	97.26	96.55	96.04
2035	97.26	101.39	102.07	98.18	90.58	76.12	97.06	86.87	97.82	99.24	98.90	98.15
2036	100.30	103.84	104.15	98.13	92.11	81.09	97.21	87.79	98.23	102.10	102.08	99.77
2037	103.90	106.19	107.32	100.80	96.72	82.63	98.42	89.65	99.63	105.58	103.83	103.24
2038	106.63	108.17	109.11	102.76	97.37	85.19	101.14	90.69	103.90	108.20	105.75	105.85
2039	109.65	111.37	112.13	106.34	98.97	86.96	106.48	96.20	108.22	110.60	108.44	108.86
2040	112.13	113.43	114.50	108.34	100.07	89.08	107.33	97.98	110.92	112.29	110.09	110.91

Effective for service on and after September 23, 2015

# WIND INTEGRATION

TABLE 7							
Wind Integration							
Year	Cost						
2015	3.76						
2016	3.84						
2017	3.91						
2018	3.99						
2019	4.07						
2020	4.15						
2021	4.23						
2022	4.31						
2023	4.40						
2024	4.49						
2025	4.57						
2026	4.66						
2027	4.76						
2028	4.85						
2029	4.95						
2030	5.04						
2031	5.14						
2032	5.24						
2033	5.35						
2034	5.45						
2035	5.56						
2036	5.67						
2037	5.78						
2038	5.89						
2039	6.01						
2040	6.13						

#### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard PPA:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment, that economic conditions or claims experience may warrant.
- 2) Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

#### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

#### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

#### INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

# DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10 MW. A Community-Based or Family-Owned QF is exempt from these restrictions.

#### **Definition of Community-Based**

- a. A community project (or a community sponsored project) must have a recognized and established organization located within the county of the project or within 50 miles of the project that has a genuine role in helping the project be developed and must have some not insignificant continuing role with or interest in the project after it is completed and placed in service.
- b. After excluding the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, the equity (ownership) interests in a community sponsored project must be owned in substantial percentage (80 percent or more) by the following persons (individuals and entities): (i) the sponsoring organization, or its controlled affiliates; (ii) members of the sponsoring organization (if it is a membership organization) or owners of the sponsorship organization (if it is privately owned); (iii) persons who live in the county in which the project is located or who live a county adjoining the county in which the project is located; or (iv) units of local government, charities, or other established nonprofit organizations active either in the county in which the project is located or active in a county adjoining the county in which the project is located.

#### **Definition of Family-Owned**

After excluding the ownership interest of the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, five or fewer individuals own 50 percent or more of the equity of the project entity, or fifteen or fewer individuals own 90 percent or more of the project entity. A "look through" rule applies to closely held entities that hold the project entity, so that equity held by LLCs, trusts, estates, corporations, partnerships or other similar entities is considered held by the equity owners of the look through entity. An individual is a natural person. In counting to five or fifteen, spouses or children of an equity owner of the project owner who also have an equity interest are aggregated and counted as a single individual.

Effective for service on and after September 23, 2015

## SCHEDULE 201 (Concluded)

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

### **Definition of Person(s) or Affiliated Person(s)**

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

#### Definition of Shared Interconnection and Infrastructure

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

#### OTHER DEFINITIONS

#### Mid-C Index Price

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average

Effective for service on and after September 23, 2015

# OTHER DEFINITIONS (Continued)

On-Peak Power and Average Off-Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

#### **Definition of RPS Attributes**

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

#### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

# Definition of Resource Sufficiency Period

This is the period from the current year through 2020.

#### **Definition of Resource Deficiency Period**

This is the period from 2021 through 2034.

#### **Definition of Renewable Resource Sufficiency Period**

This is the period from the current year through 2019.

# **Definition of Renewable Resource Deficiency Period**

This is the period from 2020 through 2034.

#### DISPUTE RESOLUTION

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA.

The QF may present disputes to the Commission for resolution using the following process:

The QF may file a complaint asking the Commission to adjudicate disputes regarding the formation of the standard contract. The QF may not file such a complaint during any 15-day period in which the utility has the obligation to respond, but must wait until the 15-day period has passed.

The utility may respond to the complaint within ten days of service.

The Commission will limit its review to the issues identified in the complaint and response, and utilize a process similar to the arbitration process adopted to facilitate the execution of interconnection agreements among telecommunications carriers. See OAR 860, Division 016. The administrative law judge will not act as an arbitrator.

#### SPECIAL CONDITIONS

- 1. Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- 3. Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

#### TERM OF AGREEMENT

Not less than one year and not to exceed 20 years.

UM 1931 PGE Exhibit 207

October 21, 2015, email from Jake Stephens to Bruce True

#### Message

From: Jake Stephens [jake@jakestephens.com]

**Sent**: 10/21/2015 12:43:35 PM

**To**: Bruce True [bruce.true@pgn.com]

Subject: Tygh Valley Solar I

Attachments: Exhibit D - PGE Sched\_201 less than 10 MW (Effective 2015.09.23).pdf; Form 556 - Tygh Valley Solar I - 2015.10.21

Filing w FERC.pdf; REDLINE - WASCO SOLAR I vs TYGH VALLEY SOLAR I.docx; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - TYGH VALLEY SOLAR I v0.doc; Form 556 - Tygh Valley Solar I FERC filing submission

confirmation 2015.10.21.pdf

#### Dear Bruce,

I hope this e-mail finds you well. I had an excellent meeting with John Morton yesterday at the WSPP event. I greatly appreciate your suggestion to attend -- and it was great to meet most of the merchant team there. John was quite helpful in providing thoughts on these submissions and projects, as well as context for larger, non-standard contract project under consideration.

SUBMISSION: As regards the planned 10 MW QF "Tygh Valley Solar I", owned by Tygh Valley Solar I LLC, and planned for construction in Wasco County, OR by end of calendar year 2020 (pending PPA's Effective Date), please find attached:

- 1a) Form 556, as filed with FERC; 1b) FERC 556 receipt confirmation)
- 2) The PGE Schedule 201 Standard Renewable Off-System Variable Power Purchase Agreement for the facility, completed for the Facility and which Agreement Tygh Valley Solar I LLC considers to be complete and acceptable as presented.
- 3) A redline, for your convenience, of this PPA submission vs the Wasco Solar I LLC submission. They are essentially identical, due to close geographic proximity, except for project name, location, and schedule.

A note on the schedule proposed for this project. I proposed herein a year later COD, per a few considerations: a) Additional timing considerations for the BPA NOS and other related processes; b) Section 2.2.3 language; and c) discussions with Mr. Morton on timing considerations. Happy to discuss this further.

Please let me know if you have any questions. I think it should be pretty straightforward. I put a couple brief comments in there for clarification's sake. The interconnection may change from initially being Wasco Coop to later a direct BPA connection -- and I think the phrasing I chose when specifying the interconnecting utility should cover that.

I appreciate your assistance and look forward to the formal execution of this agreement by PGE. I presume that if the document is signed earlier or later by PGE that the Effective Date will be updated accordingly.

I'll try to follow up on Thursday or Friday.

Best regards,

Jake Stephens Principal NewSun Energy 520-981-7303

# UM 1931 PGE Exhibit 208

Attachment #1 to email in exhibit 207 PGE's Standard Renewable Variable Off-System PPA

# STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE

## **AGREEMENT**

THIS AGREEMENT, entered into this <u>15th</u> day, <u>November</u> 2015, is between <u>TYGH VALLEY SOLAR I LLC</u> ("Seller") and Portland General Electric Company ("PGE") (hereinafter each a "Party" or collectively, "Parties").

## RECITALS

	Seller intend	s to construc	ct, own,	operate	and	maintain	a photovol	taics-based
solar	generation fac	ility for the ge	neration	of electri	c pov	wer locate	ed in	
	Wasco	County,	Oregon	wit	h a	Namepla	ite Capacity	/ Rating of
	10,000	kilowatt-AC	("kW"), a	as furthe	r de	scribed ir	n Exhibit A	("Facility");
and		-	,					

Seller intends to operate the Facility as a "Qualifying Facility," as such term is defined in Section 3.1.3, below.

Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.21, below, from the Facility in accordance with the terms and conditions of this Agreement.

# <u>AGREEMENT</u>

NOW, THEREFORE, the Parties mutually agree as follows:

# **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit A provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours in each Contract Year (8,760 or 8,784 for leap year)
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.
- 1.5. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable. PGE may, at its discretion require, among other things, that all of the following events have occurred:
- 1.5.1. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating

that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);

- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.36;
- 1.5.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the mechanical availability of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;
- 1.5.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.5.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.
- 1.6. "Contract Price" means the applicable price, including on-peak and off-peak prices, as specified in the Schedule.
- 1.7. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final Contract Year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.
- 1.9. "Environmental Attributes" shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gasses (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.
  - 1.10. "Facility" has the meaning set forth in the Recitals.

- 1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with (as may be applicable during the term) either Bonneville Power Administration's or Wasco Electric Cooperative's electric system.
- 1.12. "Generation Unit" means each separate electrical generator that contributes toward Nameplate Capacity Rating included in Exhibit A. For solar facilities, a generating unit is a complete solar electrical generation system within the Facility that is able to generate and deliver energy to the Point of Delivery independent of other Generation Units within the same Facility.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy" means "Lost Energy" means ((the Guarantee of Mechanical Availability as set forth in 3.1.10 / MAP) X Net Output for a Calendar Year) Net Output for the Calendar Year. Lost Energy shall be zero unless the result of the calculation in this subsection results in a positive number.
- 1.16. "Lost Energy Value" means Lost Energy X the excess of the annual time-weighted average Mid-C Index Price for On Peak Hours and Off Peak Hours over the time weighted average Contract Price for On Peak and Off Peak Hours for the corresponding time period (provided that such excess shall not exceed the Contract Price and further provided that Lost Energy is deemed to be zero prior to reaching the Commercial Operation Date) plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery (For Start-Up Lost Energy Value See 1.35).
- 1.17. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:
  - MAP = 100 X (Operational Hours) /(Base Hours X Number of Units)
- 1.18. "Mid-C Index Price" means the Day Ahead Intercontinental Exchange ("ICE") index price for the bilateral OTC market for energy at the Mid-C Physical for Average On Peak Power and Average Off Peak Power found on the following website: https://www.theice.com/products/OTC/Physical-Energy/Electricity. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.
- 1.19. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.

- 1.20. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.21. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.
- 1.22. "Number of Units" means the number of Generation Units in the Facility as specified in Exhibit A.
  - 1.23. "Off-Peak Hours" has the meaning provided in the Schedule.
  - 1.24. "On-Peak Hours" has the meaning provided in the Schedule.
- 1.25. "Operational Hours" for the Facility means the total across all Generation Units of the number of hours each of the Facility's Generation Units are potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, season and the time of day or night, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery in a Contract Year. During up to, but not more than, two hundred (200) hours of Planned Maintenance during a Contract Year for each Generation Unit and hours during which an event of Force Majeure exists, a Generation Unit shall be considered potentially capable of delivering such power to the Point of Delivery. For example, in the absence of any Planned Maintenance beyond 200 hours on any Generation Unit or Event of Force Majeure, the Operational Hours for a wind farm with five (5) separate two (2) MW turbines would be 43,800 for a Contract Year.
- 1.26. "Planned Maintenance" means outages scheduled ninety (90) days in advance, with PGE's prior written consent, which shall not be unreasonably withheld.
  - 1.27. "Point of Delivery" means the PGE system.
- 1.28. "Pre-Commercial Operation Date Minimum Net Output" shall mean, unless such MWh is specifically set forth by Seller in Exhibit A, an amount in MWh equal to seventy-five percent (75%) of Nameplate Capacity Rating X thirty percent (30%) for a wind or other renewable QF or fifty percent (50%) for a solar QF X (whole months since the date selected in Section 2.2.1 / 12) X (8760 hours 200 hours (assumed Planned Maintenance)) for each month. If Seller has provided specific expected monthly Net Output amounts for the Facility in Exhibit A, "Pre-Commercial Operation Date Minimum Net Output" shall mean seventy-five percent (75%) X expected net output set forth in Exhibit A for each month.
- 1.29. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.

- 1.30. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.31. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.32. "RPS Attributes" means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.
- 1.33. "Schedule" shall mean PGE Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D, the terms of which are hereby incorporated by reference.
- 1.34. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance
- 1.35. "Start-Up Lost Energy Value" means for the period after the date specified in Section 2.2.2 but prior to achievement of the Commercial Operation Date: zero, unless the Net Output is less than the pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable delay period, and the time-weighted average of the delay period's Mid-C Index Price for On-Peak Hours and Off-Peak Hours is greater than the time-weighted average of the delay period's Contract Price for On-Peak Hours and Off-Peak Hours, in which case Startup Lost Energy Value equals: (pro-rated Pre-Commercial Operation Date Minimum Net Output for the applicable period Net Output for the applicable period) X (the lower of: the time-weighted average of the Contract Price for On-Peak hours and Off-Peak Hours during the applicable period; or (the time-weighted average of the Contract Price for On-Peak Hours and Off-Peak Hours during the applicable period)). The time-weighted

average in this section will reflect the relative proportions of On-Peak Hours and Off-Peak Hours in each day.

- 1.36. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.37. "Step-in Rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.38. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.39. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.40. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.41. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).
- 1.42. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Mid-C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.43. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.44. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

# SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
- 2.2.1. By forty-seven (47) months\_after the Effective Date Seller shall begin initial deliveries of Net Output; and
- 2.2.2. By the fourth calendar-year anniversary of the Effective Date, *subject to Section 2.2.3 below*, Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.

- 2.2.3. Unless the Parties agree in writing that a later Commercial Operation Date is reasonable and necessary, the Commercial Operation Date shall be no more than three (3) years from the Effective Date. PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.
- 2.3. This Agreement shall terminate on the completion of the last day of the the twentieth contract year, or the date the Agreement is terminated in accordance with Section 8 or 11, whichever is earlier ("Termination Date").

# SECTION 3: REPRESENTATIONS AND WARRANTIES

- 3.1. Seller and PGE represent, covenant, and warrant as follows:
- 3.1.1. Seller warrants it is a Limited Liability Corporation duly organized under the laws of Delaware.
- 3.1.2. Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
- 3.1.3. Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
- 3.1.4. Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5. Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
- 3.1.6. Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7. Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8. Seller warrants that Net Dependable Capacity of the Facility is \_(during periods of peak local solar resource availability)\_9,920\_\_ kW.

- 3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is 18,500,000 kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10. Seller represents and warrants that the Facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):
- 3.1.10.1. Ninety percent (90%) beginning in the first Contract Year and extending through the Term for the Facility, if the Facility was operational and sold electricity to PGE or another buyer prior to the Effective Date of this Agreement; or
- 3.1.10.2. Ninety percent (90%) beginning in Contract Year three and extending throughout the remainder of the Term.
- 3.1.10.3. Annually, within 90 days of the end of each Contract Year, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.10.4. Seller's failure to meet the Guarantee of Mechanical Availability in a Calendar Year shall result in damages payable to PGE by Seller equal to the Lost Energy Value. PGE shall bill Seller for such damages in accordance with Section 7.
- 3.1.11. Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of 27,000,000 kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.
- 3.1.15. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.5) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable

Energy Generation System consistent with the provisions of OAR 330-160-0005 through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

# SECTION 4: DELIVERY OF POWER, PRICE AND ENVIRONMENTAL ATTRIBUTES

- 4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit A or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.
- Seller shall provide preschedules for all deliveries of energy hereunder. 4.4. including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5. During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS

Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

# SECTION 5: OPERATION AND CONTROL

- 5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.
- 5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

## **SECTION 6: CREDITWORTHINESS**

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step-in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the

requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

# SECTION 7: BILLINGS, COMPUTATIONS AND PAYMENTS

- 7.1. On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise. On or before the thirtieth (30<sup>th</sup>) day following the end of each Contract Year, PGE shall bill for any Lost Energy Value accrued pursuant to this Agreement.
- 7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

## SECTION 8: DEFAULT, REMEDIES AND TERMINATION

- 8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
- 8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
- 8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within 10 days of notice.
- 8.1.3. Seller's failure to meet the Guarantee of Mechanical Availability established in Section 3.1.10 for two consecutive Contract Years or Seller's failure to provide any written report required by that section.
  - 8.1.4. If Seller is no longer a Qualifying Facility.
  - 8.1.5. Failure of PGE to make any required payment pursuant to Section 7.1.
  - 8.1.6. Seller's failure to meet the Commercial Operation Date.
- 8.2. In the event of a default under Section 8.1.6, PGE may provide Seller with written notice of default. Seller shall have one year in which to cure the default during which time the Seller shall pay PGE damages equal to the Lost Energy Value. If Seller is unable to cure the default, PGE may immediately terminate this Agreement as provided in Section 8.3. PGE's resource sufficiency/deficiency position shall have no bearing on PGE's right to terminate the Agreement under this Section 8.2.
- 8.3. In the event of a default hereunder, except as otherwise provided in this Agreement, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party. In addition, the non-defaulting Party may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. A termination hereunder shall be effective upon the date of delivery of notice, as provided in Section 20. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.

- 8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 8.5. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 8.6. Sections 8.1, 8.4, 8.5, 10, and 19.2 shall survive termination of this Agreement.

# SECTION 9: TRANSMISSION CURTAILMENTS

- 9.1. Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Section 4.4 of this Agreement.
- 9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

## SECTION 10: INDEMNIFICATION AND LIABILITY

- 10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- 10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this

Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.

- 10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

## **SECTION 11: INSURANCE**

- 11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.
- 11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.

11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

# **SECTION 12: FORCE MAJEURE**

- 12.1. As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.
- 12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
- 12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
- 12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
- 12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.

12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

### **SECTION 13: SEVERAL OBLIGATIONS**

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

### **SECTION 14: CHOICE OF LAW**

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

### **SECTION 16: WAIVER**

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

### SECTION 17: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain in effect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

### SECTION 18: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld.

Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

### SECTION 19: ENTIRE AGREEMENT

- 19.1. This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 19.2. By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

### **SECTION 20: NOTICES**

20.1. All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller: Tygh Valley Solar I LLC

c/o Jacob Stephens 3033 E Hawthorne St Tucson, AZ 85716

with a copy to: Stephane Nguyen

c/o Reed Smith

1901 Avenue of the Stars #700 Los Angeles, CA 90067-6078

To PGE: Contracts Manager

QF Contracts, 3WTC0306 PGE - 121 SW Salmon St. Portland, Oregon 97204

20.2 The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 20.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in their respective names as of the Effective Date.

PGE			
By:			

Name.
Title:
Date:
TYGH VALLEY SOLAR I LLC
(Name Seller)
By:
Name: Jacob Stephens
Title: Authorized Representative
Date:

Nomo:

# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

TYGH VALLEY Solar I is a photovoltaics-based solar generating facility which upon reaching full commercial operations have nameplate capacity of 10 MW-AC net output at the point of interconnection subject to available solar energy input. The facility will consist of the following primary equipment:

- 1. PV Modules Commercially-available photovoltaic modules for utility-scale DC energy production. Nominal per module DC production rating of 350W +/-50W-DC. Qty <= [14MM/(module rating)].
- 2. Inverter AC Generator Units: Commercially-available string inverter (90kW-AC, nominal) convert DC to AC power, collected by AC wiring to switchboard. Each such collected aggregation of inverters shall constitute a single sub-generator for the facility, which once all aggregated shall constitute the entire generator for the facility.
- 3. Pad-mounted transformers: for each sub-generator shall transform inverter output voltage to plant AC collection voltage (12.47 KV, nominally)
- 4. Racking systems, commercially-available, will mount the PV Modules and direct them and control their angle to receive light from the sun. Racking systems will be arranged in generally uniform rows on the facility site.5. Additional interconnection, transformation, switching, storage, metering, communications, tie-line, and meteorological observations facilities as may be required, subject to final interconnection, permitting, and design requirements.

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

- 1. Seller's Generation Interconnection Agreement
- 2. Wasco County CUP & Building Permits
- 3. BPA: Transmission Service Agreement
- 4. EFSC Site Certificate (if final project footprint > 100 acres)
- 5. Additional as may be determined by Seller to be required for facility permitting, construction, and interconnection.

### EXHIBIT C START-UP TESTING

### Seller-identified start-up tests

As part of the start-up of Facility, Seller will perform the following tests, in addition to any further tests deemed required in coordination with EPC contractor (the Facility's manufacturer) and primary supply vendors (PV modules, inverters, transformers) and interconnecting utility. This will include required factory checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable). This will include required start-up tests and checks which necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- Validation of mechanical assembly completion for sign-off on EPC vendor warranty of mechanical completion and workmanship, including racking system, wiring (module connections, DC collection, string terminations, inverter connections to collected strings, AC delivery to switchboard and stepup/collection transformers, and AC collection system deliver to interconnection facilities), inverter mounting, and module installation.
- 2. Electrical performance validation by facility PV string and sub-generator, per insolation input, including:
  - a) DC wiring inputs to inverters
  - b) AC wiring delivery to transformers
- 3. Inverter Commissioning, per manufacturer specifications, including commissioning report;
- 4. Facility daily start-up and shut-down automation confirmed;
- 5. Energization of transformers:
- 6. Full system performance test;
- 7. Interconnection facilities: Commissioning of on-site, tie-line, and off-site interconnection facilities (as applicable), including switchyard, substation, breakers, and metering equipment (as applicable), in coordination with interconnecting utility and performing electrical contractor;
- 8. Cataloguing of installed equipment on-site, including primary equipment serial numbers and manufacturer information for O&M documentation;
- Complete pre-parallel checks with PGE;
- 10. Test energy delivery and metering checks.
- 11. Excitation and voltage regulation operation tests per insolation inputs.
- 12. Meteorological station commissioning and report;
- 13. Facility communications equipment commissioning and report; and
- 14. Other tests as may be required by equipment manufacturers.

### EXHIBIT D SCHEDULE

[Attach currently in-effect Schedule 201]

### UM 1931 PGE Exhibit 209

Attachment #2 to email in exhibit 207
PGE's Schedule 201 Avoided Cost Power Purchase Information which is Exhibit D to the PPA

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

### **PURPOSE**

To provide information about Standard Avoided Costs and Renewable Avoided Costs, Standard Power Purchase Agreements (PPA) and Negotiated PPAs, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

### AVAILABLE

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

#### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard PPA.

#### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard PPA, a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security deemed sufficient by the Company as set forth in the Standard PPA.

### POWER PURCHASE INFORMATION

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

#### PPA

In accordance with terms set forth in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a PPA with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard PPA.

### PPA (Continued)

Any Seller may elect to negotiate a PPA with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on either the filed Standard Avoided Costs or Renewable Avoided Costs in effect at that time.

### STANDARD PPA (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard PPA will complete all informational and price option selection requirements in the applicable Standard PPA and submit the executed Agreement to the Company prior to service under this schedule. The Standard PPA is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard PPAs are:

- Standard In-System Non-Variable Power Purchase Agreement
- Standard Off-System Non-Variable Power Purchase Agreement
- Standard In-System Variable Power Purchase Agreement
- Standard Off-System Variable Power Purchase Agreement
- Standard Renewable In-System Non-Variable Power Purchase Agreement
- Standard Renewable Off-System Non-Variable Power Purchase Agreement
- Standard Renewable In-System Variable Power Purchase Agreement
- Standard Renewable Off-System Variable Power Purchase Agreement

The Standard PPAs applicable to variable resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

#### GUIDELINES FOR 10 MW OR LESS FACILITIES ELECTING STANDARD PPA

To execute the Standard PPA the Seller must complete all of the general project information requested in the applicable Standard PPA.

When all information required in the Standard PPA has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard PPA.

The Seller may request in writing that the Company prepare a final draft Standard PPA. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard PPA.

When both parties are in full agreement as to all terms and conditions of the draft Standard PPA, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, an executed copy will be returned to the Seller. Prices and other terms and conditions in the PPA will not be final and binding until the Standard PPA has been executed by both parties.

### OFF-SYSTEM PPA

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a PPA with the Company after following the applicable Standard or Negotiated PPA guidelines and making the arrangements necessary for transmission of power to the Company's system.

### **BASIS FOR POWER PURCHASE PRICE**

#### AVOIDED COST SUMMARY

The power purchase prices are based on either the Company's Standard Avoided Costs or Renewable Avoided Costs in effect at the time the agreement is executed. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

Monthly On-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1a, 2a, and 3a and Renewable Avoided Costs as listed in Tables 4a, 5a, and 6a. Monthly Off-Peak prices are included in both the Standard Avoided Costs as listed in Tables 1b, 2b, and 3b and Renewable Avoided Costs as listed in Tables 4b, 5b, and 6b.

#### ON-PEAK PERIOD

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Standard Avoided Costs are based on forward market price estimates through the Resource Sufficiency Period, the period of time during which the Company's Standard Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the Resource Deficiency Period, the Standard Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

### PRICING FOR STANDARD PPA

Pricing represents the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard PPA up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard PPA pricing will be based on either the Standard or Renewable Avoided Costs in effect at the time the agreement is executed.

The Company will pay the Seller either the Off-Peak Standard Avoided Cost pursuant to Tables 1b, 2b, or 3b or the Off-Peak Renewable Avoided Costs pursuant to Tables 4b, 5b, or 6b for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any PPA year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard PPA; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller either the On-Peak Standard Avoided Cost pursuant to Tables 1a, 2a, or 3a or the On-Peak Renewable Avoided Costs pursuant to Tables 4a, 5a, or 6a for all other Net Output. (See the PPA for defined terms.)

### 1) Standard Fixed Price Option

The Standard Fixed Price Option is based on Standard Avoided Costs including forecasted natural gas prices. It is available to all QFs.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Standard Avoided Costs in Tables 1a and 1b, 2a and 2b, or 3a and 3c, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Prices paid to the Seller under the Standard Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both the Base Load QF resources (Tables 1a and 1b) and the avoided proxy resource, the basis used to determine Standard Avoided Costs for the Standard Fixed Price Option, are assumed to have a capacity contribution to peak of 100%. The capacity contribution for Wind QF resources (Tables 2a and 2b) is assumed to be 5%. The capacity contribution for Solar QF resources (Tables 3a and 3b) is assumed to be 5%.

Prices paid to the Seller under the Standard Fixed Price Option for Wind QFs (Tables 2a and 2b) include a reduction for the wind integration costs in Table 7. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 2a and 2b, for a net-zero effect.

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price for all years up to five in excess of the initial 15.

					T.	ABLE 1a						
					Avo	ided Cos	ts					
			St	andard F	ixed Pric	e Option	for Base	Load QF	•			
				0	n-Peak F	orecast (	\$/MWH)					:
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	78.37	78.12	73.80	72.86	73.01	73.16	73.31	73.46	73.62	73.77	75.78	77.10
2022	79.60	79.78	78.44	76.48	76.26	76.34	76.50	76.67	76.84	77.48	80.21	81.34
2023	82.63	82.66	80.27	78.81	78.21	78.22	78.39	78.56	78.73	79.46	82.18	83.13
2024	84.81	84.26	82.55	80.80	80.00	79.66	79.83	80.00	80.18	81.44	83.71	84.67
2025	87.20	86.76	84.95	83.60	83.30	83.50	83.68	83.88	84.08	84.75	87.87	88.86
2026	93.47	93.69	92.94	91.35	91.11	91.34	91.57	91.80	92.04	92.84	96.16	96.79
2027	98.73	98.97	93.85	92.24	91.99	92.22	92.45	92.67	92.91	93.60	96.95	98.01
2028	99.42	99.66	95.01	93.41	93.16	93.39	93.62	93.85	94.09	94.79	98.30	99.38
2029	101.94	101.29	98.21	96.29	95.84	96.08	96.31	96.55	96.80	97.53	100.99	103.20
2030	104.26	103.91	99.35	97.50	97.22	97.47	97.70	97.94	98.19	98.93	102.45	105.78
2031	105.82	105.51	101.80	99.52	99.21	99.46	99.70	99.95	100.20	100.96	104.54	105.68
2032	107.60	107.29	103.51	101.18	100.86	101.12	101.36	101.61	101.87	102.64	106.30	107.46
2033	110.10	109.78	105.92	103.55	103.23	103.49	103.74	103.99	104.26	105.04	108.77	109.96
2034	112.39	112.07	108.14	105.72	105.39	105.66	105.91	106.17	106.44	107.24	111.04	112.25
2035	114.61	114.28	110.27	107.80	107.47	107.74	108.00	108.27	108.54	109.36	113.23	114.47
2036	117.00	116.66	112.57	110.05	109.71	109.99	110.26	110.53	110.81	111.64	115.59	116.85
2037	119.76	119.42	115.25	112.68	112.34	112.62	112.89	113.16	113.45	114.30	118.33	119.61
2038	122.43	122.09	117.83	115.21	114.86	115.15	115.42	115.70	116.00	116.86	120.97	122.28
2039	124.98	124.63	120.29	117.62	117.26	117.55	117.83	118.12	118.42	119.30	123.49	124.82
2040	127.87	127.51	123.09	120.36	119.99	120.29	120.58	120.87	121.18	122.08	126.35	127.71

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

					T/	ABLE 1b						
						ided Cost	ts					
			Sta	andard F	ixed Price	e Option	for Base	Load QF				
				0	ff-Peak F	orecast (	\$/MWH)		<del></del>			
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2021	40.14	39.89	35.57	34.63	34.78	34.93	35.08	35.23	35.39	35.54	37.55	38.87
2022	40.62	40.79	39.46	37.50	37.28	37.35	37.52	37.68	37.85	38.49	41.22	42.36
2023	42.75	42.77	40.39	38.92	38.33	38.34	38.51	38.68	38.85	39.58	42.30	43.25
2024	44.40	43.85	42.14	40.39	39.59	39.25	39.42	39.59	39.77	41.03	43.30	44.26
2025	45.86	45.42	43.61	42.26	41.96	42.16	42.35	42.54	42.74	43.41	46.53	47.52
2026	51.31	51.54	50.79	49.19	48.95	49.19	49.41	49.65	49.89	50.69	54.00	54.64
2027	55.74	55.98	50.87	49.26	49.00	49.24	49.46	49.69	49.93	50.62	53.97	55.02
2028	55.58	55.83	51.18	49.58	49.32	49.56	49.78	50.01	50.25	50.96	54.47	55.54
2029	57.23	56.59	53.51	51.59	51.14	51.38	51.61	51.85	52.10	52.83	56.29	58.50
2030	58.68	58.33	53.77	51.92	51.63	51.88	52.12	52.36	52.61	53.35	56.87	60.20
2031	59.33	59.03	55.32	53.04	52.73	52.98	53.22	53.46	53.72	54.48	58.06	59.20
2032	60.50	60.19	56.41	54.08	53.76	54.02	54.26	54.51	54.77	55.54	59.20	60.36
2033	61.76	61.44	57.59	55.21	54.89	55.15	55.40	55.66	55.92	56.71	60.43	61.62
2034	62.95	62.62	58.69	56.27	55.94	56.21	56.46	56.72	56.99	57.80	61.59	62.80
2035	64.35	64.02	60.01	57.54	57.21	57.48	57.74	58.00	58.28	59.10	62.97	64.20
2036	65.90	65.57	61.48	58.96	58.62	58.90	59.16	59.43	59.72	60.55	64.50	65.76
2037	67.50	67.15	62.99	60.42	60.07	60.35	60.62	60.90	61.18	62.03	66.06	67.34
2038	69.14	68.79	64.54	61.92	61.56	61.85	62.12	62.41	62.70	63.57	67.67	68.98
2039	70.63	70.28	65.94	63.27	62.91	63.20	63.48	63.77	64.07	64.95	69.14	70.47
2040	72.44	72.08	67.66	64.94	64.57	64.87	65.16	65.45	65.75	66.65	70.93	72.28

					T/	4BLE 2a						
						ded Cost						
							on for Wi	nd QF				
			<del>-</del>	0	n-Peak F	orecast (	\$/MWH)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.37	21.37	22.37	18.12	19.12	21.37	29.37	30.97	25.87	23.62	25.12	29.37
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32.42	28.38	27.13	28.13	30.59
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98
2019	34.07	32.33	28.56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	34.73	37.74
2020	36.21	34.36	30.37	28.53	27.62	25.35	36.82	42.47	37.23	35.61	36.91	40.10
2021	37.82	37.58	33.25	32.31	32.46	32.62	32.76	32.91	33.07	33.22	35.23	36.56
2022	38.26	38.43	37.10	35.14	34.92	34.99	35.15	35.32	35.49	36.13	38.86	40.00
2023	40.34	40.37	37.98	36.52	35.92	35.93	36.10	36.27	36.45	37.18	39.89	40.84
2024	41.93	41.38	39.67	37.92	37.12	36.78	36.95	37.12	37.30	38.56	40.83	41.79
2025	43.34	42.91	41.10	39.75	39.45	39.65	39.83	40.03	40.23	40.90	44.02	45.01
2026	48.75	48.97	48.22	46.63	46.39	46.63	46.85	47.08	47.32	48.12	51.44	52.08
2027	53.13	53.37	48.25	46.65	46.39	46.63	46.85	47.08	47.32	48.01	51.36	52.41
2028	52.92	53.17	48.52	46.92	46.66	46.90	47.12	47.35	47.59	48.30	51.81	52.88
2029	54.52	53.88	50.79	48.87	48.42	48.66	48.90	49.14	49.38	50.11	53.58	55.79
2030	55.92	55.57	51.00	49.16	48.87	49.12	49.36	49.60	49.85	50.59	54.11	57.44
2031	56.52	56.21	52.51	50.22	49.91	50.16	50.40	50.65	50.90	51.66	55.24	56.38
2032	57.60	57.29	53.51	51.18	50.87	51.12	51.37	51.62	51.88	52.65	56.30	57.46
2033	58.83	58.51	54.66	52.28	51.96	52.22	52.47	52.72	52.99	53.78	57.50	58.69
2034	59.96	59.64	55.70	53.28	52.95	53.22	53.48	53.73	54.01	54.81	58.61	59.81
2035	61.30	60.97	56.96	54.49	54.16	54.43	54.69	54.95	55.23	56.05	59.92	61.16
2036	62.79	62.46	58.37	55.85	55.51	55.78	56.05	56.32	56.60	57.43	61.38	62.64
2037	64.33	63.99	59.82	57.25	56.90	57.19	57.45	57.73	58.02	58.87	62.90	64.18
2038	65.90	65.55	61.30	58.68	58.33	58.62	58.89	59.17	59.46	60.33	64.44	65.74
2039	67.33	66.97	62.64	59.97	59.60	59.90	60.18	60.46	60.76	61.65	65.84	67.17
2040	69.09	68.72	64.30	61.58	61.21	61.51	61.80	62.09	62.39	63.29	67.57	68.92

					T.	ABLE 2b						
					Avoi	ded Cost	s					
				Standard	I Fixed P	rice Optic	on for Wi	nd QF				
			<del></del>	0	ff-Peak F	orecast (	\$/MWH)				<del></del>	
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	23.12	16.62	17.12	12.12	14.12	15.37	20.12	22.37	21.87	19.37	21.62	24.62
2016	23.22	22.15	19.48	14.70	12.81	9.59	19.29	23.90	21.67	23.46	24.13	26.27
2017	26.36	25.15	22.13	17.56	15.32	11.52	21.46	26.58	24.11	26.02	26.76	29.12
2018	28.61	27.30	24.04	18.21	15.90	11.97	23.81	29.44	26.72	28.90	29.72	32.33
2019	30.35	28.97	25.52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29
2020	32.76	31.27	27.57	20.93	18.31	13.84	27.30	33.70	30.60	33.09	34.02	36.99
2021	35.91	35.66	31.34	30.40	30.55	30.70	30.85	31.00	31.16	31.31	33.32	34.64
2022	36.31	36.48	35.15	33.19	32.97	33.04	33.21	33.37	33.54	34.18	36.91	38.05
2023	38.35	38.37	35.99	34.52	33.93	33.94	34.11	34.28	34.45	35.18	37.90	38.85
2024	39.91	39.36	37.65	35.90	35.10	34.76	34.93	35.10	35.28	36.54	38.81	39.77
2025	41.28	40.84	39.03	37.68	37.38	37.58	37.77	37.96	38.16	38.83	41.95	42.94
2026	46.64	46.87	46.12	44.52	44.28	44.52	44.74	44.98	45.22	46.02	49.33	49.97
2027	50.98	51.22	46.11	44.50	44.24	44.48	44.70	44.93	45.17	45.86	49.21	50.26
2028	50.73	50.98	46.33	44.73	44.47	44.71	44.93	45.16	45.40	46.11	49.62	50.69
2029	52.28	51.64	48.56	46.64	46.19	46.43	46.66	46.90	47.15	47.88	51.34	53.55
2030	53.64	53.29	48.73	46.88	46.59	46.84	47.08	47.32	47.57	48.31	51.83	55.16
2031	54.19	53.89	50.18	47.90	47.59	47.84	48.08	48.32	48.58	49.34	52.92	54.06
2032	55.25	54.94	51.16	48.83	48.51	48.77	49.01	49.26	49.52	50.29	53.95	55.11
2033	56.41	56.09	52.24	49.86	49.54	49.80	50.05	50.31	50.57	51.36	55.08	56.27
2034	57.49	57.16	53.23	50.81	50.48	50.75	51.00	51.26	51.53	52.34	56.13	57.34
2035	58.79	58.46	54.45	51.98	51.65	51.92	52.18	52.44	52.72	53.54	57.41	58.64
2036	60.23	59.90	55.81	53.29	52.95	53.23	53.49	53.76	54.05	54.88	58.83	60.09
2037	61.72	61.37	57.21	54.64	54.29	54.57	54.84	55.12	55.40	56.25	60.28	61.56
2038	63.24	62.89	58.64	56.02	55.66	55.95	56.22	56.51	56.80	57.67	61.77	63.08
2039	64.61	64.26	59.92	57.25	56.89	57.18	57.46	57.75	58.05	58.93	63.12	64.45
2040	66.31	65.95	61.53	58.81	58.44	58.74	59.03	59.32	59.62	60.52	64.80	66.15

					T	ABLE 3a						
					Avoi	ided Cost	ts					
				Standard	Fixed P	rice Optic	on for So	lar QF				
				0	n-Peak F	orecast (	\$/MWH)		· · · · · · · · · · · · · · · · · · ·			
	-					-						
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	40.36	38.51	34.52	32.68	31.77	29.50	40.97	46.62	41.38	39.76	41.06	44.25
2021	42.05	41.81	37.48	36.54	36.69	36.85	36.99	37.14	37.30	37.45	39.46	40.79
2022	42.57	42.74	41.41	39.45	39.23	39.30	39.46	39.63	39.80	40.44	43.17	44.31
2023	44.74	44.77	42.38	40.92	40.32	40.33	40.50	40.67	40.85	41.58	44.29	45.24
2024	46.42	45.87	44.16	42.41	41.61	41.27	41.44	41.61	41.79	43.05	45.32	46.28
2025	47.92	47.49	45.68	44.33	44.03	44.23	44.41	44.61	44.81	45.48	48.60	49.59
2026	53.42	53.64	52.89	51.30	51.06	51.30	51.52	51.75	51.99	52.79	56.11	56.75
2027	57.89	58.13	53.01	51.41	51.15	51.39	51.61	51.84	52.08	52.77	56.12	57.17
2028	57.77	58.02	53.37	51.77	51.51	51.75	51.97	52.20	52.44	53.15	56.66	57.73
2029	59.47	58.83	55.74	53.82	53.37	53.61	53.85	54.09	54.33	55.06	58.53	60.74
2030	60.96	60.61	56.04	54.20	53.91	54.16	54.40	54.64	54.89	55.63	59.15	62.48
2031	61.66	61.35	57.65	55.36	55.05	55.30	55.54	55.79	56.04	56.80	60.38	61.52
2032	62.85	62.54	58.76	56.43	56.12	56.37	56.62	56.87	57.13	57.90	61.55	62.71
2033	64.18	63.86	60.01	57.63	57.31	57.57	57.82	58.07	58.34	59.13	62.85	64.04
2034	65.42	65.10	61.16	58.74	58.41	58.68	58.94	59.19	59.47	60.27	64.07	65.27
2035	66.86	66.53	62.52	60.05	59.72	59.99	60.25	60.51	60.79	61.61	65.48	66.72
2036	68.46	68.13	64.04	61.52	61.18	61.45	61.72	61.99	62.27	63.10	67.05	68.31
2037	70.11	69.77	65.60	63.03	62.68	62.97	63.23	63.51	63.80	64.65	68.68	69.96
2038	71.80	71.45	67.20	64.58	64.23	64.52	64.79	65.07	65.36	66.23	70.34	71.64
2039	73.35	72.99	68.66	65.99	65.62	65.92	66.20	66.48	66.78	67.67	71.86	73.19
2040	75.22	74.85	70.43	67.71	67.34	67.64	67.93	68.22	68.52	69.42	73.70	75.05

PRICING OPTIONS FOR STANDARD PPA (Continued)
Standard Fixed Price Option (Continued)

					TA	ABLE 3b						
					Avoi	ded Cost	ts					
				Standard	Fixed P	rice Optic	on for So	lar QF				
				0	ff-Peak F	orecast (	\$/MWH)					
Veer	lan	F-b	84	A I	Bank	I		A	C = m	0-4	New	Dan
Year	Jan	<b>Feb</b> 20.38	Mar	<b>Apr</b> 15.88	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88		20.88		17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	36.91	35.42	31.72	25.08	22.46	17.99	31.45	37.85	34.75	37.24	38.17	41.14
2021	40.14	39.89	35.57	34.63	34.78	34.93	35.08	35.23	35.39	35.54	37.55	38.87
2022	40.62	40.79	39.46	37.50	37.28	37.35	37.52	37.68	37.85	38.49	41.22	42.36
2023	42.75	42.77	40.39	38.92	38.33	38.34	38.51	38.68	38.85	39.58	42.30	43.25
2024	44.40	43.85	42.14	40.39	39.59	39.25	39.42	39.59	39.77	41.03	43.30	44.26
2025	45.86	45.42	43.61	42.26	41.96	42.16	42.35	42.54	42.74	43.41	46.53	47.52
2026	51.31	51.54	50.79	49.19	48.95	49.19	49.41	49.65	49.89	50.69	54.00	54.64
2027	55.74	55.98	50.87	49.26	49.00	49.24	49.46	49.69	49.93	50.62	53.97	55.02
2028	55.58	55.83	51.18	49.58	49.32	49.56	49.78	50.01	50.25	50.96	54.47	55.54
2029	57.23	56.59	53.51	51.59	51.14	51.38	51.61	51.85	52.10	52.83	56.29	58.50
2030	58.68	58.33	53.77	51.92	51.63	51.88	52.12	52.36	52.61	53.35	56.87	60.20
2031	59.33	59.03	55.32	53.04	52.73	52.98	53.22	53.46	53.72	54.48	58.06	59.20
2032	60.50	60.19	56.41	54.08	53.76	54.02	54.26	54.51	54.77	55.54	59.20	60.36
2033	61.76	61.44	57.59	55.21	54.89	55.15	55.40	55.66	55.92	56.71	60.43	61.62
2034	62.95	62.62	58.69	56.27	55.94	56.21	56.46	56.72	56.99	57.80	61.59	62.80
2035	64.35	64.02	60.01	57.54	57.21	57.48	57.74	58.00	58.28	59.10	62.97	64.20
2036	65.90	65.57	61.48	58.96	58.62	58.90	59.16	59.43	59.72	60.55	64.50	65.76
2037	67.50	67.15	62.99	60.42	60.07	60.35	60.62	60.90	61.18	62.03	66.06	67.34
2038	69.14	68.79	64.54	61.92	61.56	61.85	62.12	62.41	62.70	63.57	67.67	68.98
2039	70.63	70.28	65.94	63.27	62.91	63.20	63.48	63.77	64.07	64.95	69.14	70.47
2040	72.44	72.08	67.66	64.94	64.57	64.87	65.16	65.45	65.75	66.65	70.93	72.28

PRICING OPTIONS FOR STANDARD PPA (Continued)

### 2) Renewable Fixed Price Option

The Renewable Fixed Price Option is based on Renewable Avoided Costs. It is available only to Renewable QFs that generate electricity from a renewable energy source that may be used by the Company to comply with the Oregon Renewable Portfolio Standard as set forth in ORS 469A.005 to 469A.210.

This option is available for a maximum term of 15 years. Prices will be as established at the time the Standard PPA is executed and will be equal to the Renewable Avoided Costs in Tables 4a and 4b, 5a and 5b, or 6a and 6b, depending on the type of QF, effective at execution. QFs using any resource type other than wind and solar are assumed to be Base Load QFs.

Sellers will retain all Environmental Attributes generated by the facility during the Renewable Resource Sufficiency Period. A Renewable QF choosing the Renewable Fixed Price Option must cede all RPS Attributes generated by the facility to the Company during the Renewable Resource Deficiency Period.

Prices paid to the Seller under the Renewable Fixed Price Option include adjustments for the capacity contribution of the QF resource type relative to that of the avoided proxy resource. Both Wind QF resources (Tables 5a and 5b) and the avoided proxy resource, the basis used to determine Renewable Avoided Costs for the Renewable Fixed Price Option, are assumed to have a capacity contribution to peak of 5%. The capacity contribution for Solar QF resources (Tables 6a and 6b) is assumed to be 5%. The capacity contribution for Base Load QF resources (Tables 4a and 4b) is assumed to be 100%.

The Renewable Avoided Costs during the Renewable Resource Deficiency Period reflect an increase for avoided wind integration costs, shown in Table 7.

Prices paid to the Seller under the Renewable Fixed Price Option for Wind QFs (Tables 5a and 5b) include a reduction for the wind integration costs in Table 7, which cancels out wind integration costs included in the Renewable Avoided Costs during the Renewable Resource Deficiency Period. However, if the Wind QF is outside of PGE's Balancing Authority Area as contemplated in the Commission's Order No. 14-058, the Seller is paid the wind integration charges in Table 7, in addition to the prices listed in Tables 5a and 5b.

Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15.

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

					T	ABLE 4a						
				F	Renewabl	e Avoide	d Costs					
			Rer	newable l	Fixed Price	ce Option	for Base	e Load Q	F			
			·	0	n-Peak F	orecast (	\$/MWH)	<del>,</del>		,	,	
						_		_	_			_
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	125.74	126.53	125.41	127.03	140.05	145.57	127.38	130.51	126.75	126.47	126.82	126.50
2021	128.18	129.01	128.18	130.15	141.81	147.45	129.70	133.53	129.93	129.92	129.25	129.25
2022	130.93	131.03	130.40	132.22	146.90	151.40	130.33	135.07	131.40	132.68	131.64	131.28
2023	133.78	133.52	132.29	134.63	149.40	154.53	133.27	136.99	134.07	135.33	134.05	134.61
2024	135.86	136.38	135.36	136.28	146.93	155.96	135.98	140.58	138.31	137.11	136.55	136.70
2025	138.62	138.64	137.83	139.58	150.44	158.68	138.76	145.07	140.30	139.79	139.31	139.77
2026	140.87	141.39	139.68	141.34	152.50	159.44	142.48	146.95	142.42	141.35	141.73	141.93
2027	143.35	143.68	141.92	144.13	156.12	161.22	143.98	150.23	144.81	144.21	143.23	143.91
2028	145.59	145.24	143.77	146.24	154.86	164.58	146.34	151.58	146.46	147.03	145.51	146.47
2029	148.52	148.11	146.70	148.71	156.81	166.96	149.67	154.97	151.19	148.80	148.14	148.56
2030	150.70	150.10	149.63	151.33	158.53	171.27	151.96	157.20	152.65	150.63	150.43	151.36
2031	153.13	152.24	151.91	153.77	160.72	172.88	154.08	160.45	154.91	153.55	152.94	154.66
2032	155.39	155.13	153.42	156.21	163.63	173.43	156.94	163.70	156.96	155.52	155.35	156.18
2033	159.11	157.29	156.26	159.12	166.65	175.17	159.51	166.08	159.59	158.06	158.73	159.11
2034	162.00	160.14	158.93	162.71	168.39	179.93	162.85	168.61	162.36	161.53	161.50	162.49
2035	165.29	162.52	161.82	165.46	170.12	180.84	166.22	172.80	165.75	163.86	164.19	165.36
2036	167.06	164.63	164.72	168.74	172.98	183.24	169.29	177.62	168.66	165.76	166.45	167.44
2037	169.87	168.42	167.79	172.22	176.16	185.49	173.84	181.72	173.07	168.66	170.66	170.35
2038	173.31	171.82	170.94	175.63	180.61	188.47	176.69	185.88	174.80	172.08	173.45	173.29
2039	176.00	174.40	173.68	177.96	184.42	192.12	178.50	185.19	176.58	175.25	176.42	176.04
2040	178.64	177.31	176.42	181.75	186.84	195.04	182.42	188.36	179.69	178.02	179.69	179.60

					T/	ABLE 4b						
				F	Renewabl	e Avoide	d Costs					
			Rer	newable l	Fixed Pric	e Option	for Base	Load Q	F			
			·	0	ff-Peak F	orecast (	\$/MWH)		·		,	
									_			_
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	68.58	67.81	70.03	66.95	51.47	41.59	66.31	63.57	67.34	67.56	68.43	67.52
2021	71.70	70.03	70.67	68.13	54.41	44.45	68.58	64.91	68.43	69.50	69.36	69.20
2022	72.83	72.10	72.50	70.14	52.58	43.90	73.59	66.03	71.26	70.61	70.94	71.27
2023	74.08	73.80	75.03	73.19	51.34	44.74	74.72	68.53	72.72	72.11	72.75	73.03
2024	74.27	73.88	76.02	73.85	58.94	50.44	74.10	67.73	72.49	72.53	73.47	74.32
2025	76.37	76.84	78.49	75.22	60.00	52.58	76.18	69.30	74.23	74.75	76.80	74.78
2026	78.55	78.33	81.13	78.05	64.87	53.28	76.32	71.90	76.57	77.89	78.72	77.07
2027	81.57	80.52	82.48	79.59	65.36	56.20	79.64	72.83	78.65	80.47	80.82	79.73
2028	83.33	83.05	84.80	82.68	69.45	56.44	82.37	73.98	81.24	81.50	82.54	82.21
2029	84.45	85.45	86.98	85.41	72.98	59.37	84.03	75.52	82.32	84.06	85.12	85.43
2030	87.14	88.37	89.47	86.42	76.31	62.56	85.40	78.15	85.83	87.25	87.66	87.28
2031	89.62	91.21	92.09	88.87	79.11	66.01	88.30	81.26	87.31	89.03	90.93	87.50
2032	91.36	92.90	94.09	90.37	81.83	66.80	89.22	81.75	89.34	92.12	91.54	90.26
2033	94.30	96.19	97.29	93.45	84.73	71.50	93.78	83.69	92.81	95.63	94.00	93.33
2034	96.65	98.62	99.97	95.91	86.88	71.32	95.58	86.58	95.37	97.26	96.55	96.04
2035	97.26	101.39	102.07	98.18	90.58	76.12	97.06	86.87	97.82	99.24	98.90	98.15
2036	100.30	103.84	104.15	98.13	92.11	81.09	97.21	87.79	98.23	102.10	102.08	99.77
2037	103.90	106.19	107.32	100.80	96.72	82.63	98.42	89.65	99.63	105.58	103.83	103.24
2038	106.63	108.17	109.11	102.76	97.37	85.19	101.14	90.69	103.90	108.20	105.75	105.85
2039	109.65	111.37	112.13	106.34	98.97	86.96	106.48	96.20	108.22	110.60	108.44	108.86
2040	112.13	113.43	114.50	108.34	100.07	89.08	107.33	97.98	110.92	112.29	110.09	110.91

					T	ABLE 5a						
				F	Renewabl	e Avoide	d Costs					
			F	Renewab	le Fixed F	Price Opt	ion for W	/ind QF				
				0	n-Peak F	orecast (	\$/MWH)	·			·	
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	27.37	21.37	22.37	18.12	19.12	21.37	29.37	30.97	25.87	23.62	25.12	29.37
2016	27.59	26.17	23.09	21.67	20.97	19.22	28.06	32.42	28.38	27.13	28.13	30.59
2017	30.21	28.65	25.29	24.22	23.44	21.49	30.60	35.35	30.95	29.92	31.01	33.72
2018	32.47	30.81	27.20	25.54	24.72	22.68	33.02	38.12	33.39	31.93	33.10	35.98
2019	34.07	32.33	28.56	26.82	25.96	23.82	34.65	39.99	35.04	33.51	34.73	37.74
2020	85.86	86.65	85.54	87.16	100.18	105.69	87.50	90.64	86.87	86.60	86.95	86.62
2021	87.40	88.23	87.41	89.37	101.03	106.68	88.92	92.76	89.15	89.14	88.47	88.47
2022	89.35	89.45	88.82	90.65	105.32	109.82	88.76	93.49	89.83	91.11	90.06	89.71
2023	91.25	91.00	89.77	92.10	106.88	112.00	90.75	94.46	91.55	92.81	91.53	92.08
2024	92.74	93.26	92.24	93.16	103.81	112.84	92.86	97.46	95.19	93.99	93.43	93.58
2025	94.53	94.55	93.74	95.49	106.35	114.59	94.67	100.98	96.21	95.70	95.22	95.68
2026	95.91	96.43	94.72	96.38	107.54	114.49	97.52	101.99	97.46	96.39	96.77	96.97
2027	97.49	97.83	96.07	98.27	110.27	115.36	98.12	104.38	98.96	98.36	97.37	98.06
2028	98.83	98.49	97.01	99.48	108.10	117.82	99.59	104.83	99.70	100.27	98.75	99.71
2029	100.84	100.43	99.01	101.03	109.12	119.27	101.99	107.29	103.51	101.12	100.45	100.88
2030	102.09	101.49	101.02	102.72	109.91	122.66	103.35	108.59	104.04	102.01	101.81	102.75
2031	103.55	102.66	102.33	104.19	111.14	123.30	104.50	110.88	105.33	103.98	103.36	105.08
2032	105.12	104.87	103.15	105.94	113.37	123.17	106.67	113.43	106.70	105.25	105.09	105.92
2033	107.55	105.73	104.70	107.57	115.10	123.61	107.96	114.52	108.04	106.50	107.17	107.56
2034	109.28	107.42	106.21	109.99	115.67	127.21	110.13	115.89	109.64	108.81	108.77	109.77
2035	111.68	108.91	108.21	111.85	116.51	127.23	112.61	119.19	112.14	110.25	110.58	111.75
2036	112.55	110.12	110.20	114.23	118.47	128.73	114.78	123.11	114.15	111.25	111.94	112.93
2037	114.13	112.67	112.05	116.48	120.41	129.75	118.09	125.98	117.33	112.92	114.91	114.61
2038	116.47	114.98	114.10	118.79	123.77	131.63	119.85	129.04	117.96	115.24	116.60	116.45
2039	118.03	116.44	115.72	119.99	126.46	134.15	120.53	127.22	118.62	117.28	118.45	118.07
2040	119.52	118.20	117.31	122.64	127.73	135.93	123.31	129.24	120.58	118.91	120.58	120.48

					TA	ABLE 5b						
				F	Renewable	e Avoide	d Costs					
			F	Renewab	le Fixed F	rice Opt	ion for W	ind QF				
			;	0	ff-Peak F	orecast (	\$/MWH)		·		<del></del>	,
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	23.12	16.62	17.12	12.12	14.12	15.37	20.12	22.37	21.87	19.37	21.62	24.62
2016	23.22	22.15	19.48	14.70	12.81	9.59	19.29	23.90	21.67	23.46	24.13	26.27
2017	26.36	25.15	22.13	17.56	15.32	11.52	21.46	26.58	24.11	26.02	26.76	29.12
2018	28.61	27.30	24.04	18.21	15.90	11.97	23.81	29.44	26.72	28.90	29.72	32.33
2019	30.35	28.97	25.52	19.35	16.91	12.75	25.28	31.23	28.35	30.66	31.53	34.29
2020	64.43	63.66	65.88	62.80	47.32	37.44	62.16	59.42	63.19	63.41	64.28	63.37
2021	67.47	65.80	66.44	63.90	50.18	40.22	64.35	60.68	64.20	65.27	65.13	64.97
2022	68.52	67.79	68.19	65.83	48.27	39.59	69.28	61.72	66.95	66.30	66.63	66.96
2023	69.68	69.40	70.63	68.79	46.94	40.34	70.32	64.13	68.32	67.71	68.35	68.63
2024	69.78	69.39	71.53	69.36	54.45	45.95	69.61	63.24	68.00	68.04	68.98	69.83
2025	71.80	72.27	73.92	70.65	55.43	48.01	71.61	64.73	69.66	70.18	72.23	70.21
2026	73.89	73.67	76.47	73.39	60.21	48.62	71.66	67.24	71.91	73.23	74.06	72.41
2027	76.81	75.76	77.72	74.83	60.60	51.44	74.88	68.07	73.89	75.71	76.06	74.97
2028	78.48	78.20	79.95	77.83	64.60	51.59	77.52	69.13	76.39	76.65	77.69	77.36
2029	79.50	80.50	82.03	80.46	68.03	54.42	79.08	70.57	77.37	79.11	80.17	80.48
2030	82.10	83.33	84.43	81.38	71.27	57.52	80.36	73.11	80.79	82.21	82.62	82.24
2031	84.48	86.07	86.95	83.73	73.97	60.87	83.16	76.12	82.17	83.89	85.79	82.36
2032	86.12	87.66	88.85	85.13	76.59	61.56	83.98	76.51	84.10	86.88	86.30	85.02
2033	88.95	90.84	91.94	88.10	79.38	66.15	88.43	78.34	87.46	90.28	88.65	87.98
2034	91.20	93.17	94.52	90.46	81.43	65.87	90.13	81.13	89.92	91.81	91.10	90.59
2035	91.70	95.83	96.51	92.62	85.02	70.56	91.50	81.31	92.26	93.68	93.34	92.59
2036	94.63	98.17	98.48	92.46	86.44	75.42	91.54	82.12	92.56	96.43	96.41	94.10
2037	98.12	100.41	101.54	95.02	90.94	76.85	92.64	83.87	93.85	99.80	98.05	97.46
2038	100.74	102.28	103.22	96.87	91.48	79.30	95.25	84.80	98.01	102.31	99.86	99.96
2039	103.64	105.36	106.12	100.33	92.96	80.95	100.47	90.19	102.21	104.59	102.43	102.85
2040	106.00	107.30	108.37	102.21	93.94	82.95	101.20	91.85	104.79	106.16	103.96	104.78

PRICING OPTIONS FOR STANDARD PPA (Continued)
Renewable Fixed Price Option (Continued)

					T	ABLE 6a						
				F	Renewabl	e Avoide	d Costs					
Renewable Fixed Price Option for Solar QF												
On-Peak Forecast (\$/MWH)												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	31.13	25.13	26.13	21.88	22.88	25.13	33.13	34.73	29.63	27.38	28.88	33.13
2016	31.43	30.01	26.93	25.51	24.81	23.06	31.90	36.26	32.22	30.97	31.97	34.43
2017	34.12	32.56	29.20	28.13	27.35	25.40	34.51	39.26	34.86	33.83	34.92	37.63
2018	36.46	34.80	31.19	29.53	28.71	26.67	37.01	42.11	37.38	35.92	37.09	39.97
2019	38.14	36.40	32.63	30.89	30.03	27.89	38.72	44.06	39.11	37.58	38.80	41.81
2020	90.01	90.80	89.69	91.31	104.33	109.84	91.65	94.79	91.02	90.75	91.10	90.77
2021	91.63	92.46	91.64	93.60	105.26	110.91	93.15	96.99	93.38	93.37	92.70	92.70
2022	93.66	93.76	93.13	94.96	109.63	114.13	93.07	97.80	94.14	95.42	94.37	94.02
2023	95.65	95.40	94.17	96.50	111.28	116.40	95.15	98.86	95.95	97.21	95.93	96.48
2024	97.23	97.75	96.73	97.65	108.30	117.33	97.35	101.95	99.68	98.48	97.92	98.07
2025	99.10	99.12	98.31	100.06	110.92	119.16	99.24	105.55	100.78	100.27	99.79	100.25
2026	100.57	101.09	99.38	101.04	112.20	119.15	102.18	106.65	102.12	101.05	101.43	101.63
2027	102.25	102.59	100.83	103.03	115.03	120.12	102.88	109.14	103.72	103.12	102.13	102.82
2028	103.68	103.34	101.86	104.33	112.95	122.67	104.44	109.68	104.55	105.12	103.60	104.56
2029	105.79	105.38	103.96	105.98	114.07	124.22	106.94	112.24	108.46	106.07	105.40	105.83
2030	107.13	106.53	106.06	107.76	114.95	127.70	108.39	113.63	109.08	107.05	106.85	107.79
2031	108.69	107.80	107.47	109.33	116.28	128.44	109.64	116.02	110.47	109.12	108.50	110.22
2032	110.36	110.11	108.39	111.18	118.61	128.41	111.91	118.67	111.94	110.49	110.33	111.16
2033	112.90	111.08	110.05	112.92	120.45	128.96	113.31	119.87	113.39	111.85	112.52	112.91
2034	114.73	112.87	111.66	115.44	121.12	132.66	115.58	121.34	115.09	114.26	114.22	115.22
2035	117.24	114.47	113.77	117.41	122.07	132.79	118.17	124.75	117.70	115.81	116.14	117.31
2036	118.22	115.79	115.87	119.90	124.14	134.40	120.45	128.78	119.82	116.92	117.61	118.60
2037	119.91	118.45	117.83	122.26	126.19	135.53	123.87	131.76	123.11	118.70	120.69	120.39
2038	122.36	120.87	119.99	124.68	129.66	137.52	125.74	134.93	123.85	121.13	122.49	122.34
2039	124.04	122.45	121.73	126.00	132.47	140.16	126.54	133.23	124.63	123.29	124.46	124.08
2040	125.65	124.33	123.44	128.77	133.86	142.06	129.44	135.37	126.71	125.04	126.71	126.61

					TA	ABLE 6b						
Renewable Avoided Costs												
Renewable Fixed Price Option for Solar QF												
Off-Peak Forecast (\$/MWH)												
		F.1.		A	8.4		11	Α	0	0.1	Ni	D
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	26.88	20.38	20.88	15.88	17.88	19.13	23.88	26.13	25.63	23.13	25.38	28.38
2016	27.06	25.99	23.32	18.54	16.65	13.43	23.13	27.74	25.51	27.30	27.97	30.11
2017	30.27	29.06	26.04	21.47	19.23	15.43	25.37	30.49	28.02	29.93	30.67	33.03
2018	32.60	31.29	28.03	22.20	19.89	15.96	27.80	33.43	30.71	32.89	33.71	36.32
2019	34.42	33.04	29.59	23.42	20.98	16.82	29.35	35.30	32.42	34.73	35.60	38.36
2020	68.58	67.81	70.03	66.95	51.47	41.59	66.31	63.57	67.34	67.56	68.43	67.52
2021	71.70	70.03	70.67	68.13	54.41	44.45	68.58	64.91	68.43	69.50	69.36	69.20
2022	72.83	72.10	72.50	70.14	52.58	43.90	73.59	66.03	71.26	70.61	70.94	71.27
2023	74.08	73.80	75.03	73.19	51.34	44.74	74.72	68.53	72.72	72.11	72.75	73.03
2024	74.27	73.88	76.02	73.85	58.94	50.44	74.10	67.73	72.49	72.53	73.47	74.32
2025	76.37	76.84	78.49	75.22	60.00	52.58	76.18	69.30	74.23	74.75	76.80	74.78
2026	78.55	78.33	81.13	78.05	64.87	53.28	76.32	71.90	76.57	77.89	78.72	77.07
2027	81.57	80.52	82.48	79.59	65.36	56.20	79.64	72.83	78.65	80.47	80.82	79.73
2028	83.33	83.05	84.80	82.68	69.45	56.44	82.37	73.98	81.24	81.50	82.54	82.21
2029	84.45	85.45	86.98	85.41	72.98	59.37	84.03	75.52	82.32	84.06	85.12	85.43
2030	87.14	88.37	89.47	86.42	76.31	62.56	85.40	78.15	85.83	87.25	87.66	87.28
2031	89.62	91.21	92.09	88.87	79.11	66.01	88.30	81.26	87.31	89.03	90.93	87.50
2032	91.36	92.90	94.09	90.37	81.83	66.80	89.22	81.75	89.34	92.12	91.54	90.26
2033	94.30	96.19	97.29	93.45	84.73	71.50	93.78	83.69	92.81	95.63	94.00	93.33
2034	96.65	98.62	99.97	95.91	86.88	71.32	95.58	86.58	95.37	97.26	96.55	96.04
2035	97.26	101.39	102.07	98.18	90.58	76.12	97.06	86.87	97.82	99.24	98.90	98.15
2036	100.30	103.84	104.15	98.13	92.11	81.09	97.21	87.79	98.23	102.10	102.08	99.77
2037	103.90	106.19	107.32	100.80	96.72	82.63	98.42	89.65	99.63	105.58	103.83	103.24
2038	106.63	108.17	109.11	102.76	97.37	85.19	101.14	90.69	103.90	108.20	105.75	105.85
2039	109.65	111.37	112.13	106.34	98.97	86.96	106.48	96.20	108.22	110.60	108.44	108.86
2040	112.13	113.43	114.50	108.34	100.07	89.08	107.33	97.98	110.92	112.29	110.09	110.91

### WIND INTEGRATION

TABLE 7					
Wind Integration					
Year	Cost				
2015	3.76				
2016	3.84				
2017	3.91				
2018	3.99				
2019	4.07				
2020	4.15				
2021	4.23				
2022	4.31				
2023	4.40				
2024	4.49				
2025	4.57				
2026	4.66				
2027	4.76				
2028	4.85				
2029	4.95				
2030	5.04				
2031	5.14				
2032	5.24				
2033	5.35				
2034	5.45				
2035	5.56				
2036	5.67				
2037	5.78				
2038	5.89				
2039	6.01				
2040	6.13				

#### MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

### **INSURANCE REQUIREMENTS**

The following insurance requirements are applicable to Sellers with a Standard PPA:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment, that economic conditions or claims experience may warrant.
- 2) Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on their own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

#### INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

### INTERCONNECTION REQUIREMENTS (Continued)

The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

# DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA

A QF will be eligible to receive pricing under the Standard PPA if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the Same Person(s) or Affiliated Person(s), and located at the Same Site, does not exceed 10 MW. A Community-Based or Family-Owned QF is exempt from these restrictions.

### **Definition of Community-Based**

- a. A community project (or a community sponsored project) must have a recognized and established organization located within the county of the project or within 50 miles of the project that has a genuine role in helping the project be developed and must have some not insignificant continuing role with or interest in the project after it is completed and placed in service.
- b. After excluding the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, the equity (ownership) interests in a community sponsored project must be owned in substantial percentage (80 percent or more) by the following persons (individuals and entities): (i) the sponsoring organization, or its controlled affiliates; (ii) members of the sponsoring organization (if it is a membership organization) or owners of the sponsorship organization (if it is privately owned); (iii) persons who live in the county in which the project is located or who live a county adjoining the county in which the project is located; or (iv) units of local government, charities, or other established nonprofit organizations active either in the county in which the project is located or active in a county adjoining the county in which the project is located.

### **Definition of Family-Owned**

After excluding the ownership interest of the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, five or fewer individuals own 50 percent or more of the equity of the project entity, or fifteen or fewer individuals own 90 percent or more of the project entity. A "look through" rule applies to closely held entities that hold the project entity, so that equity held by LLCs, trusts, estates, corporations, partnerships or other similar entities is considered held by the equity owners of the look through entity. An individual is a natural person. In counting to five or fifteen, spouses or children of an equity owner of the project owner who also have an equity interest are aggregated and counted as a single individual.

### SCHEDULE 201 (Concluded)

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE PRICING UNDER THE STANDARD PPA (Continued)

### Definition of Person(s) or Affiliated Person(s)

As used above, the term "Same Person(s)" or "Affiliated Person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the Same Person(s) or Affiliated Person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit and the facilities at issue are independent family-owned or community-based projects. A unit of Oregon local government may also be a "passive investor" in a community-based project if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for pricing under the Standard PPA is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for pricing under the Standard PPA is sought.

### Definition of Shared Interconnection and Infrastructure

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to pricing under the Standard PPA will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for pricing under the Standard PPA so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection agreement requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard PPA.

### OTHER DEFINITIONS

### Mid-C Index Price

As used in this schedule, the daily Mid-C Index Price shall be the Day Ahead Intercontinental Exchange ("ICE") for the bilateral OTC market for energy at the Mid-C Physical for Average

### OTHER DEFINITIONS (Continued)

On-Peak Power and Average Off-Peak Power found on the following website: <a href="https://www.theice.com/products/OTC/Physical-Energy/Electricity">https://www.theice.com/products/OTC/Physical-Energy/Electricity</a>. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

#### **Definition of RPS Attributes**

As used in this schedule, RPS Attributes means all attributes related to the Net Output generated by the Facility that are required in order to provide PGE with "qualifying electricity," as that term is defined in Oregon's Renewable Portfolio Standard Act, Ore. Rev. Stat. 469A.010, in effect at the time of execution of this Agreement. RPS Attributes do not include Environmental Attributes that are greenhouse gas offsets from methane capture not associated with the generation of electricity and not needed to ensure that there are zero net emissions associated with the generation of electricity.

#### **Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

#### Definition of Resource Sufficiency Period

This is the period from the current year through 2020.

### **Definition of Resource Deficiency Period**

This is the period from 2021 through 2034.

### **Definition of Renewable Resource Sufficiency Period**

This is the period from the current year through 2019.

### **Definition of Renewable Resource Deficiency Period**

This is the period from 2020 through 2034.

#### DISPUTE RESOLUTION

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the above-described criteria for entitlement to pricing under the Standard PPA.

The QF may present disputes to the Commission for resolution using the following process:

The QF may file a complaint asking the Commission to adjudicate disputes regarding the formation of the standard contract. The QF may not file such a complaint during any 15-day period in which the utility has the obligation to respond, but must wait until the 15-day period has passed.

The utility may respond to the complaint within ten days of service.

The Commission will limit its review to the issues identified in the complaint and response, and utilize a process similar to the arbitration process adopted to facilitate the execution of interconnection agreements among telecommunications carriers. See OAR 860, Division 016. The administrative law judge will not act as an arbitrator.

### SPECIAL CONDITIONS

- 1. Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- 3. Unless required by state or federal law, if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed, PPAs entered into pursuant to this schedule will not terminate prior to the Standard or Negotiated PPA's termination date.

#### TERM OF AGREEMENT

Not less than one year and not to exceed 20 years.

## UM 1931 PGE Exhibit 210

November 20, 2015, email from Bruce True to Jake Stephens including several prior emails between the two of them

#### Message

From: Bruce True [Bruce.True@pgn.com]

**Sent**: 11/20/2015 8:57:18 AM

**To**: Jake Stephens [jake@jakestephens.com]

Subject: RE: Tygh Valley Solar I

Jake: the first and second changes look fine. As far as the change to 2.2.2, at this point we do not believe you have demonstrated that a later COD is reasonable and necessary. In our experience, PGE and IPPs and developers in the region regularly acquire transmission in a much shorter timeframe than 5.5 years. From your email, it sounds like you have not yet submitted a request to BPA and therefore any concerns about timing are speculative. At this point we will not agree to a later COD.

On the issue of the contract length and fixed price period, under the current form contract, PGE provides a 15 year fixed price term starting on the Effective Date. The adjustment to the term in the OneEnergy Oregon Solar contract was in error. Our position is consistent with Schedule 201 which states that the fixed price option "is available for a maximum term of 15 years" and that "prices will be established at the time the Standard PPA is executed." It is also consistent with Commission Order 05-584 in which the Commission ruled that "standard contract prices should be fixed for only the first 15 years of the 20-year term." As the seller you may maximize the ability to take advantage of the fixed price term by bringing your project on line as quickly as possible.

I hope you can appreciate that we need to ensure that our contracting process is consistent with Commission orders and fair to our retail customers.

From: Jake Stephens [mailto:jake@jakestephens.com]

Sent: Thursday, November 19, 2015 12:39 PM

To: Bruce True

Subject: Re: Tygh Valley Solar I

Hi Bruce, just following up, checking to see if you got my voicemail and/or had a chance to consider the below. Can we chat for a minute this week? Sorry about the contract length issue; but after reading the original OPUC decision on contract length, it was pretty clear that the whole logic was to provide 15 year term of fixed pricing operations for financing purposes; too big of an impact for me to just ignore, especially with prior PGE 15 and 20-year precedent. But I appreciate your consideration and time on the matter. Thanks, Jake

On Thu, Nov 12, 2015 at 8:48 PM, Jake Stephens < jake@jakestephens.com > wrote: Hi Bruce,

Good talking earlier. Attached please find my revision (redline vs last copy sent) of the Tygh Valley Solar I PPA.

- 1) I updated the GIA to Wasco, 1.11.
- 2) I deleted the "during peak solar resource" language you didn't like from 3.1.8.
- 3) 2.2.2: As for the COD, I put 5.5 years out. Per the 2.2.3 language that "PGE will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary." ... I spoke with BPA's Craig Hardin who indicated that I'd expect to have to go through BPA's "Network Open Season" to get firm transmission rights (18 months, starting in ~Feb) (so 21 months from Dec 1) and then if upgrades required, an EIS/NEPA process will be triggered (24-36 months), plus upgrade construction (6-12 months, if smooth). That implies 51 to 69 months timeline.

Thus, I submit that my requesting a COD of up to 5.5 years out is "reasonable and necessary". This also corresponds with PGE's self identified renewables defiency period (2020) and resource deficiency period (2021), so this seems to line up well with the needs of the ratepayer and PGE. (Craig's/BPA's comments on timeline are pasted below, documenting same.)

- 4) Regarding the contract length and fixed price period: I did a little more digging, per the history of PGE providing QF's 15 year fixed pricing and 20 year contract terms from COD. A couple examples follow and/or attached. I can dig some more, but figured these were representative. These were executed under the same PUC orders for 15-year fixed-price rates and 20-year contract terms. So, based on non-discriminatory practices, PGE should provide the same 15 year fixed and 20 year from COD term, consistent with OPUC Order 05-584 stating need for 15 years for financing. It would be burdensome to the QF to have only 12 years of energy sales to finance the project against (variable pricing is not useful, per our conversation, for project debt and investors, since Mid-C could be zero by then.)
- a) Example 1: PGE agreed to a 15-year fixed prices that ran from the COD (pasted below from the 2.5 MW OneEnergy Oregon Solar, LLC PPA in the link). As you can see, it clearly states that the fixed rates are only for "Fixed Price (for the first 15 years following the Commercial Operation Date)"
- b) Example 2: the 9 MW PaTu Wind Farm PPA, states in section 2.3 that the term runs until "5/31/2031" which is over 20 years after the Effective date, which according to the first line of the agreement was April 29, 2010.

http://apps.puc.state.or.us/edockets/edocs.asp?FileType=RPA&FileName=re143rpa10953.pdf&DocketID=19098&numSequence=12

Revisions per above attached (or left the same, as applicable).

Thanks for your help, Best, Jake

### **EXCERPTS (OneEnergy Oregon Solar)**

THIS AGREEMENT, entered into this 19th day, of February 2014, is between OneEnergy Oregon Solar, LLC ("Seller") and Portland General Electric Company ("PGE")

. . .

### **SECTION 5: CONTRACT PRICE**

PGE shall pay Seller for the price options 5.1, 5.2, 5.3 or 5.4, as selected below, pursuant to Schedule 201. Seller shall indicate which price option it chooses by marking its choice below with an X. If Seller chooses the option in Section 5.1, it must mark below a single second option from Section 5.2, 5.3, or 5.4 for all Contract Years in excess of 15 until the remainder of the Term. Except as provided herein, Sellers selection is for the Term and shall not be changed during the Term.

- 5.1 X Fixed Price (for the first 15 years following the Commercial Operation Date)
- 5.2 X Deadband Index Gas Price (for the 16th year following the Commercial Operation Date and continuing until the end of Term)
- 5.3 Index Gas Price
- 5.4 Mid-C Index Rate Price

### **EXCERPTS (BPA, re: NOS and TSR and upgrade timelines)**

On Tue, Nov 3, 2015 at 4:36 PM, Hardin, Craig A (BPA) - TSE-TPP-2 < cahardin@bpa.gov > wrote:
Jake,
Yes. Anytime you move even one shovel full of dirt NEPA can take up to three years. If there are more than one build that requires NEPA things get twisted and take more time.
Thanks Craig
On Tue, Nov 3, 2015 at 4:05 PM, Hardin, Craig A (BPA) - TSE-TPP-2 < cahardin@bpa.gov > wrote:
18 months to complete the NOS process is a fair "ball park" time frame to use.
On Wed, Oct 28, 2015 at 4:38 PM, Bruce True < Bruce.True@pgn.com > wrote:  PGE can't accommodate this.
Section 1.11 should state Bonneville Power Administration ideally. We can accept Wasco as well it turns out (more discussion after you and I hung up), but not an either or kind of statement in a form contract of this type.
If COD is 47 months out then, the contract should be submitted in about 11 months, not today, so section 2.2.1 isn't acceptable.
Further the end date should be the 20th anniversary of the effective date, not the 20th contract year in Section 2.3. The contract years begin at the commercial operation, so the language as submitted would mean a contract more than 20 years in length.

Also, since this is a standard agreement, we can't accept, "during periods of peak local solar resource availability" in 3.1.8.

From: Jake Stephens [mailto:jake@jakestephens.com] Sent: Wednesday, October 21, 2015 12:44 PM To: Bruce True Subject: Tygh Valley Solar I Dear Bruce, I hope this e-mail finds you well. I had an excellent meeting with John Morton yesterday at the WSPP event. I greatly appreciate your suggestion to attend -- and it was great to meet most of the merchant team there. John was quite helpful in providing thoughts on these submissions and projects, as well as context for larger, non-standard contract project under consideration. SUBMISSION: As regards the planned 10 MW QF "Tygh Valley Solar I", owned by Tygh Valley Solar I LLC, and planned for construction in Wasco County, OR by end of calendar year 2020 (pending PPA's Effective Date), please find attached: 1a) Form 556, as filed with FERC; 1b) FERC 556 receipt confirmation) 2) The PGE Schedule 201 Standard Renewable Off-System Variable Power Purchase Agreement for the facility, completed for the Facility and which Agreement Tygh Valley Solar I LLC considers to be complete and acceptable as presented. 3) A redline, for your convenience, of this PPA submission vs the Wasco Solar I LLC submission. They are essentially identical, due to close geographic proximity, except for project name, location, and schedule. A note on the schedule proposed for this project. I proposed herein a year later COD, per a few considerations: a) Additional timing considerations for the BPA NOS and other related processes; b) Section 2.2.3 language; and c) discussions with Mr. Morton on timing considerations. Happy to discuss this further. Please let me know if you have any questions. I think it should be pretty straightforward. I put a couple brief comments in there for

clarification's sake. The interconnection may change from initially being Wasco Coop to later a direct BPA connection -- and I think the

I appreciate your assistance and look forward to the formal execution of this agreement by PGE. I presume that if the document is signed

phrasing I chose when specifying the interconnecting utility should cover that.

earlier or later by PGE that the Effective Date will be updated accordingly.

I'll try to follow up on Thursday or Friday.	12 uo / 1 ugo c		
Best regards,			
Jake Stephens			
Principal			
NewSun Energy			
<u>520-981-7303</u>			

# UM 1931 PGE Exhibit 211

December 4, 2015, email from Jake Stephens to Brue True

#### Message

From: Jake Stephens [jake@jakestephens.com]

**Sent**: 12/4/2015 5:00:10 PM

To: Bruce True [bruce.true@pgn.com]

Subject: QF - Starvation Solar I - SIGNED SUBMISSION

Attachments: Form 556 - Starvation Solar I FERC filing submission confirmation 2015.12.04.pdf; Form 556 - Starvation Solar I.pdf;

Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - STARVATION SOLAR I - REDLINE.docx; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - STARVATION SOLAR I v1 - SIGNED.pdf; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - STARVATION SOLAR I v1.doc.docx

Dear Bruce,

SUBMISSION: As regards the planned 10 MW Qualified Facility "Starvation Solar I", owned by Starvation Solar I LLC, and planned for construction in Harney County, OR, please find attached:

1a) Form 556, as filed with FERC; 1b) FERC 556 receipt confirmation)

2) SIGNED COPY of the PGE Schedule 201 Standard Renewable Off-System Variable Power Purchase Agreement for the Starvation Solar I and which agreement Starvation Solar I LLC considers to be complete and acceptable as presented.

Based on my prior correspondence with you on other projects, I expect no issues from PGE as to the content of this PPA, as it is identical in form to the submission of the Tygh Valley Solar I PPA for which you confirmed that the only remaining issues for PGE were as relates any COD beyond three years from Effective Date and for the PPA term potentially extending beyond 20 years from the Effective Date. While we disagree on the OPUC requirements as relates term length and fixed pricing period, this submission provides for a term ending 16 years after the Effective Date and a COD 3 years after the Effective Date.

The only other changes were for ownership, project name, project location, interconnection with BPA, and scaling the energy production for the Starvation Solar I site. Thus it is executed and final for Seller.

3) Redline from PGE 9/23/2015 form, the effective 201 at the time of submission and Effective Date, as here signed.

I appreciate your assistance and look forward to the formal execution of this agreement by PGE. I presume that if the document is signed earlier or later by PGE that the Effective Date will be updated accordingly.

I'll try to follow up on Thursday or Friday.

Best regards,

Jake Stephens Principal NewSun Energy Holdings Oregon LLC 520-981-7303

# UM 1931 PGE Exhibit 212

December 3, 2015, letter from Greg Adams to Denise Saunders



Gregory M. Adams

Tel: 208-938-2236 Fax: 208-938-7904 greg@richardsonadams.com P.O. Box 7218 Boise, ID 83707 - 515 N. 27th St. Boise, ID 83702

December 3, 2015

Via First Class and Electronic Mail

Denise Saunders Assistant General Counsel Portland General Electric Company 121 SW Salmon Street, 1WTC1301 Portland, OR 97204

RE: Tygh Valley Solar I LLC, Dayton Solar I LLC, and Wasco Solar I LLC

### Dear Denise:

As we discussed on the telephone today, my law firm has been retained to assist in negotiations of power purchase agreements for Tygh Valley Solar I LLC, Dayton Solar I LLC, and Wasco Solar I LLC. I understand that Jake Stephens has been in communication with Bruce True and other individuals at Portland General Electric Company ("PGE") to request contracts for these facilities selling to PGE as qualifying facilities ("QF") under the Public Utility Regulatory Policies Act of 1978 ("PURPA"). As each of these projects is proposed to be 10 megawatts ("MW"), they are entitled to PGE's standard contract. Although these are standard contracts for which the attorneys will hopefully need to engage in little discussion prior to execution, Mr. Stephens has asked me to obtain formal clarification from you on one particular point – the date on which the 15-year period of fixed-price rates commences.

I understand that Mr. True has taken the position with Mr. Stephens that the 15-year period for fixed prices will commence on the date the contract is fully executed and not on the later date when the project is fully constructed and begins selling electricity. I was surprised to hear that Mr. True had taken this position because it is inconsistent with the purpose of providing 15 years of fixed prices and treatment by other utilities. While we do not agree with Mr. True's interpretation of the standard contract, the point must now be clarified through the language necessary to complete the standard contract's terms in order to ensure there is no disagreement after execution. Mr. Stephens therefore asked that I obtain clarification from you that PGE will agree that the 15-year period of fixed prices will commence at commercial operation, consistent with the precedents discussed in this letter.

Ms. Denise Saunders December 3, 2015 Page 2

This issue was first addressed in Order No. 05-584. The Commission specifically relied upon testimony of the Oregon Department of Energy that, for financing purposes, a QF needs a fixed revenue stream for a *minimum* period of 15 years in order to match the term of a typical loan. The Commission chose 15 years as the maximum period for fixed rates because that was the *minimum* period found to be necessary "to ensure that the terms of the standard contract facilitate appropriate financing for a QF project." Order 05-584 at 19. Because the minimum period of fixed revenue must be 15 years and QFs cannot sell electricity for revenue prior to construction and operation, the 15 years must commence when the QF achieves operation – not the potentially much earlier date prior to financing when the standard contract is initially executed.

The standard contracts implementing this policy confirm that Order No. 05-584 provides QFs with 15 years of fixed prices after achieving commercial operation. Section Two of PacifiCorp's standard contract provides, in pertinent part: "Except as otherwise provided herein, this Agreement shall terminate on \_\_\_\_\_ [enter Date that is no later than 20 years after the Scheduled Initial Delivery Date] ("Termination Date")." (emphasis added). Section Five of the PacifiCorp contract further explains: "In the event Seller elects the Fixed Price, PacifiCorp shall pay Seller the applicable On-Peak and Off-Peak rates specified in Schedule 37 during the first fifteen (15) years after the Scheduled Initial Delivery Date. Thereafter, PacifiCorp shall pay Seller Firm Electric Market."

Similarly, Article Five of Idaho Power's standard contract under its Schedule 85 provides, in pertinent part: "Term - Subject to the provisions of paragraph 5.2 below, this Agreement shall become effective on the date first written and shall continue in full force and effect for a period of \_\_\_\_\_\_ (not to exceed 20 years) Contract Years from the Operation Date." (first emphasis in original; second emphasis and underline added). Article Seven further provides: "For the first fifteen (15) Contract Years the Seller shall be paid the On-Peak and Off-Peak prices applicable to the Facility resource type as specified in Schedule 85 and included as Appendix E of this Agreement for Net Energy deliveries during On Peak or Off Peak hours." And "Contract Year" means: "The period commencing each calendar year on the same calendar date as the Operation Date and ending 364 days thereafter." Thus, the 15 years of fixed prices commences on the date of operation, not contract execution.

PGE's own standard contract also confirms that the 15-year period during which the fixed avoided cost rates are available runs from the date of commercial operation, and not from the earlier date on which the contract is executed. Specifically, the standard contract's term regarding ownership of renewable portfolio standard ("RPS") attributes unambiguously demonstrates that the 15-year term of fixed renewable rates runs from the commercial operation date because it provides that the QF will convey the RPS attributes to PGE from the point of the beginning of the renewable deficiency period until a full 15 years after commercial operation. Specifically, section 4.6 of the renewable base-load standard contract provides:

Available at: <a href="https://www.pacificpower.net/env/nmcg/qf.html">https://www.pacificpower.net/env/nmcg/qf.html</a>.

Available at: https://www.idahopower.com/AboutUs/RatesRegulatory/Tariffs/default.cfm?state\_or.

Ms. Denise Saunders December 3, 2015 Page 3

During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement....

Schedule 201 at page 3 provides additional clarification:

Renewable Avoided Costs are based on forward market price estimates through the Renewable Resource Sufficiency Period, the period of time during which the Company's Renewable Avoided Costs are associated with incremental purchases of energy and capacity from the market. For the Renewable Resource Deficiency Period, the Renewable Avoided Costs reflect the fully allocated costs of a wind plant including capital costs.

The tariff further provides on page 12: "Sellers with PPAs exceeding 15 years will receive pricing equal to the Mid-C Index Price and will retain all Environmental Attributes generated by the facility for all years up to five in excess of the initial 15."

Consistent with the plain language of PacifiCorp's contract and Idaho Power's contract, therefore, PGE's standard contract clearly allows the small QF to elect to sell for 20 years after the date of the commercial operation, and to receive the fixed avoided cost rates for the first 15 contract years after commercial operation. To the extent Mr. True believes that PGE's contract contains an ambiguity not present in the other two utilities' contract forms, there is no basis for a different application of the same policy to PGE.

Additionally, PGE has completed the terms of its standard contract on several occasions in a manner that removes any question that the 20-year term and the 15-year fixed-rate period runs from the operation date. For example, the PaTu Wind Farm, LLC contract states in section 2.3 that the term runs until "5-31-2031," which is exactly 20 years after the scheduled commercial operation date of "5/31/2011" specified in section 2.2.2 and over 21 years after execution date of April 29, 2010 specified in the first line of the contract. In another standard contract executed with OneEnergy Solar, LLC, section 5.1 of the contract unambiguously provides that the fixed prices apply "for the first 15 years following the Commercial Operation Date" and the deadband index prices apply "for the 16<sup>th</sup> year following the Commercial Operation Date and continuing until the end of the Term." In multiple other contracts, the seller designated the term to end on the date 15 years after the commercial operation date – clearly demonstrating an expectation that fixed prices will apply during the entire 15-year period it delivers energy and capacity.

Available in OPUC docket RE 143.

Ms. Denise Saunders December 3, 2015 Page 4

For the reasons set forth above, we request that PGE clarify its position and allow Tygh Valley Solar I LLC, Dayton Solar I LLC, and Wasco Solar I LLC to obtain standard contracts that clearly explain that the QF will sell its output under the fixed prices for a period of 15 years after the commercial operation date and an additional five years at the market prices. We propose language similar to that contained in the PaTu Wind Farm, LLC or OneEnergy Solar, LLC contracts, or a clarification of the point be included in the exhibit containing the prices.

I look forward to resolving this issue with you, so that the parties may move forward with execution of the standard contracts. Please contact me with any questions regarding this request.

Sincerely,

Gregory M. Adams

Attorney for Tygh Valley Solar I LLC, Dayton Solar I LLC, and Wasco Solar I LLC

# UM 1931 PGE Exhibit 213 2010 PaTu PPA

# STANDARD CONTRACT OFF SYSTEM POWER PURCHASE AGREEMENT FOR INTERMITTENT RESOURCES

THIS AGREEMENT, entered into this 29th day, April 2010, is between PáTu Wind Farm, LLC ("Seller") and Portland General Electric Company ("PGE") (hereinafter each a "Party" or collectively, "Parties").

### **RECITALS**

Seller intends to construct, own, operate and maintain a small wind facility for the generation of electric power located in Sherman County, Oregon with a Nameplate Capacity Rating of 9,000 kilowatt ("kW"), as further described in Exhibit B ("Facility"); and

Seller intends to operate the Facility as a "Qualifying Facility," as such term is defined in Section 3.1.3, below.

Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.18, below, from the Facility in accordance with the terms and conditions of this Agreement.

### **AGREEMENT**

NOW, THEREFORE, the Parties mutually agree as follows:

### **SECTION 1: DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

- 1.1. "As-built Supplement" means the supplement to Exhibit B provided by Seller in accordance with Section 4.3 following completion of construction of the Facility, describing the Facility as actually built.
- 1.2. "Base Hours" is defined as the total number of hours per Contract Year (8,760 or 8,784 for leap year).
- 1.3. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.
- 1.4. "Capacity Value" has the meaning provided for in the Tariff (as defined below).

- 1.5. "Cash Escrow" means an agreement by two parties to place money into the custody of a third party for delivery to a grantee only after the fulfillment of the conditions specified.
- 1.6. "Commercial Operation Date" means the date that the Facility is deemed by PGE to be fully operational and reliable which shall require, among other things, that all of the following events have occurred:
  - 1.6.1. PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in accordance with the terms and conditions of this Agreement (certifications required under this Section 1.6 can be provided by one or more LPEs);
  - 1.6.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.27;
  - 1.6.3. After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the operation of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
  - 1.6.4. PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed, and all required interconnection tests have been completed;
  - 1.6.5. PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
    - 1.6.6. PGE has received a copy of the Transmission Agreement.
- 1.7. "Contract Price" means the applicable price as selected by Seller in Section 5.
- 1.8. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date falling at least partially in the Term of this Agreement.
  - 1.9. "Effective Date" has the meaning set forth in Section 2.1.

- 1.10. "Environmental Attributes" means any and all current or future credits, benefits, emissions reductions, environmental air quality credits, emissions reduction credits, offsets and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance attributable to the Facility during the Term, or otherwise attributable to the generation, purchase, sale or use of energy from or by the Facility during the Term, including without limitation any of the same arising out of legislation or regulation concerned with oxides of nitrogen, sulfur or carbon, with particulate matter, soot or mercury, or implementing the United Nations Framework Convention on Climate Change (the "UNFCCC") or the Kyoto Protocol to the UNFCCC or crediting "early action" emissions reduction, or laws or regulations involving or administered by the Clean Air Markets Division of the Environmental Protection Agency or successor administrator, or any State or federal entity given jurisdiction over a program involving transferability of Environmental Attributes, and any Green Tag Reporting Rights to such Environmental Attributes.
  - 1.11. "Facility" has the meaning set forth in the Recitals.
- 1.12. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with Wasco Electric Cooperative electric system.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Mechanical Availability Percentage" or "MAP" shall mean that percentage for any Contract Year for the Facility calculated in accordance with the following formula:

- 1.16. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.17. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.

- 1.18. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses. Net Output does not include any environmental attributes.
  - 1.19. "Off-Peak Hours" has the meaning provided in the Tariff.
  - 1.20. "On-Peak Hours" has the meaning provided in the Tariff.
- 1.21. Operational Hours" for the Facility means the number of hours the Facility is potentially capable of producing power at its Nameplate Capacity Rating regardless of actual weather conditions, without any mechanical operating constraint or restriction, and potentially capable of delivering such power to the Point of Delivery. Hours during which an event of Force Majeure exists that prevents the Facility from producing or delivering power shall be considered Operational Hours.
  - 1.22. "Point of Receipt" means the PGE System.
- 1.23. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.24. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.
- 1.25. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit B.
- 1.26. "Senior lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.

- 1.27. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit C.
- 1.28. "Step-in rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.29. "Tariff" shall mean PGE rate Schedule 201 filed with the Oregon Public Utilities Commission ("Commission") in effect on the Effective Date of this Agreement and attached hereto as Exhibit D.
- 1.30. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.31. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.32. "Transmission Agreement" means an Agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.
- 1.33. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Receipt (for any reason other than Force Majeure)
- 1.34. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the amount calculated as: ((Dow Jones Mid C Index Price Contract Price) X curtailed energy) for periods of Transmission Curtailment.
- 1.35. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.
- 1.36. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Receipt for a term not less than the Term of this Contract.

References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

## SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1 This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2 Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,

- 2.2.1 By 10/01/2010 Seller shall begin initial deliveries of Net Output; and
- 2.2.2 By 5/31/2011 Seller shall have completed all requirements under Section 1.6 and shall have established the Commercial Operation Date.
- 2.2.3 In the event Seller is unable to meet the requirements of Section 2.2.2, PGE may terminate this agreement in accordance with Section 9.
- 2.3 This Agreement shall terminate on 5/31/2031 [date to be chosen by Seller], up to 20 years from the Effective Date, or the date the Agreement is terminated in accordance with Section 9 or 12, whichever is earlier ("Termination Date").

# **SECTION 3: REPRESENTATIONS AND WARRANTIES**

- 3.1 Seller and PGE represent, covenant, and warrant as follows:
- 3.1.1 Seller warrants it is a Limited Liability Company duly organized under the laws of Delaware.
- 3.1.2 Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
- 3.1.3 Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
- 3.1.4 Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5 Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar

liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.

- 3.1.6 Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7 Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8 Seller warrants that Net Dependable Capacity of the Facility is 8,800 kW.
- 3.1.9 Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is 26,000,000 kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10 Seller represents and warrants that the facility shall achieve the following Mechanical Availability Percentages ("Guarantee of Mechanical Availability"):
  - 3.1.10.1 Ninety-one percent (91%) for the first Contract Year; and
  - 3.1.10.2 Ninety-five percent (95%) beginning Contract Year two and extending throughout the remainder of the Term.
  - 3.1.10.3 Annually, by March 1st, Seller shall send to PGE a detailed written report demonstrating and providing evidence of the actual MAP for the previous Contract Year.
- 3.1.11 Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of 45,000,000 kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.
- 3.1.12 Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.13 PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.14 Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard Contract in PGE's Tariff. Seller will provide, upon request by Buyer not more frequently

than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. Buyer agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except Buyer will provide all such confidential information to the Public Utility Commission of Oregon upon the Commission's request.

### **SECTION 4: DELIVERY OF POWER**

- 4.1 Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
  - 4.2 PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3 Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit B or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.11 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with prior written notice to PGE. In the event Seller increases the Nameplate Capacity Rating of the Facility to no more than 10,000 kW pursuant to this section, PGE shall pay the Contract Price for the additional delivered Net Output. In the event Seller increases the Nameplate Capacity Rating to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000kW.
- 4.4 Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 10:00:00 PPT on the last Business Day prior to the scheduled date of delivery. The Parties' respective representatives shall maintain hourly real-time schedule coordination; provided, however, that in the absence of such coordination, the hourly schedule established by the exchange of preschedules shall be considered final. Seller and PGE shall maintain records of hourly energy schedules for accounting and operating purposes. The final E-Tag shall be the controlling evidence of the Parties' schedule. All energy shall be prescheduled according to customary WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years ecords of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.
- 4.5 Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Environmental Attributes

produced with respect to the Facility, and PGE shall not report under such program that such Environmental Attributes belong to it.

# SECTION 5: CONTRACT PRICE

PGE shall pay Seller for the price options 5.1, 5.2, 5.3 or 5.4, as selected below, pursuant to the Tariff. Seller shall indicate which price option it chooses by marking its choice below with an X. If Seller chooses the option in Section 5.1, it must mark below a single second option from Section 5.2, 5.3, or 5.4 for all Contract Years in excess of 15 until the remainder of the Term. Except as provided herein, Sellers selection is for the Term and shall not be changed during the Term.

5.1	Χ	Fixed Price
5.2	Opt	Deadband Index Gas Price
5.3		Index Gas Price
5.4		Mid-C Index Rate Price

# SECTION 6: OPERATION AND CONTROL

- Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility to PGE's electric system is disconnected, suspended or interrupted, in whole or in part, pursuant to the Generation Interconnection Agreement, or to the extent generation curtailment is required as a result of Seller's noncompliance with the Generation Interconnection Agreement. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility
- 6.2 Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.
- 6.3 If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

# SECTION 7: CREDITWORTHINESS

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Net Dependable Capacity). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

# SECTION 8: BILLINGS, COMPUTATIONS AND PAYMENTS

- 8.1 On or before the thirtieth (30th) day following the end of each Billing Period, PGE shall send to Seller payment for Seller's deliveries of Net Output to PGE, together with computations supporting such payment. PGE may offset any such payment to reflect amounts owing from Seller to PGE pursuant to this Agreement and any other agreement related to the Facility between the Parties or otherwise.
- 8.2 Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

# SECTION 9: DEFAULT, REMEDIES AND TERMINATION

- 9.1 In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
  - 9.1.1 Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
  - 9.1.2 Seller's failure to provide default security, if required by Section 7, prior to delivery of any Net Output to PGE or within 10 days of notice.
  - 9.1.3 Seller's failure to meet the MAP established in Section 3.1.10 Guarantee of Mechanical Availability for any single Contract Year or Seller's failure to provide any written report required by that section.
    - 9.1.4 If Seller is no longer a Qualifying Facility.

- 9.1.5 Failure of PGE to make any required payment pursuant to Section 8.1.
- 9.2 In the event of a default hereunder, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party, and, except for damages related to a default pursuant to Section 9.1.3 by a QF sized at 100 kW or smaller, may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. Such termination shall be effective upon the date of delivery of notice, as provided in Section 21. The rights provided in this Section 9 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 9.3 If this Agreement is terminated as provided in this Section 9, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 9.4 In the event PGE terminates this Agreement pursuant to this Section 9, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.
- 9.5 Sections 9.1, 9.3, 9.4, 11, and 20.2 shall survive termination of this Agreement.

# SECTION 10: TRANSMISSION CURTAILMENTS

- 10.1 Seller shall give PGE notice as soon as reasonably practicable of any Transmission Curtailment that is likely to affect Seller's ability to deliver any portion of energy scheduled pursuant to Sections 4.4 of this Agreement.
- 10.2 If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.4 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

# SECTION 11: INDEMNIFICATION AND LIABILITY

- Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.
- PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.
- 11.3 Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.
- 11.4 NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

### **SECTION 12: INSURANCE**

12.1 Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance maintained by PGE is excess and not contributory insurance with the

insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

- 12.2 Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.
- other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

# **SECTION 13: FORCE MAJEURE**

13.1 As used in this Agreement, "Force Majeure" or "an event of Force Majeure" means any cause beyond the reasonable control of the Seller or of PGE which, despite the exercise of due diligence, such Party is unable to prevent or overcome. By way of example, Force Majeure may include but is not limited to acts of God, fire, flood, storms, wars, hostilities, civil strife, strikes, and other labor disturbances, earthquakes, fires, lightning, epidemics, sabotage, restraint by court order or other delay or failure in the performance as a result of any action or inaction on behalf of a public authority which by the exercise of reasonable foresight such Party could not reasonably have been expected to avoid and by the exercise of due diligence, it shall be unable to overcome, subject, in each case, to the requirements of the first sentence of this paragraph. Force Majeure, however, specifically excludes the cost or availability of resources to operate the Facility, changes in market conditions that affect

the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

- 13.2 If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:
  - 13.2.1 the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and
  - 13.2.2 the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and
  - 13.2.3 the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.
- 13.3 No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.
- 13.4 Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

## **SECTION 14: SEVERAL OBLIGATIONS**

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

# **SECTION 15: CHOICE OF LAW**

This Agreement shall be interpreted and enforced in accordance with the laws of the state of Oregon, excluding any choice of law rules which may direct the application of the laws of another jurisdiction.

# SECTION 16: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally

held or determined to be invalid, illegal or void, the Parties shall enter into negotiations concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement. In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state or federal law.

### SECTION 17: WAIVER

Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

# SECTION 18: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

This Agreement is subject to the jurisdiction of those governmental agencies having control over either Party or this Agreement. Seller shall at all times maintain ineffect all local, state and federal licenses, permits and other approvals as then may be required by law for the construction, operation and maintenance of the Facility, and shall provide upon request copies of the same to PGE.

# SECTION 19: SUCCESSORS AND ASSIGNS

This Agreement and all of the terms hereof shall be binding upon and inure to the benefit of the respective successors and assigns of the Parties. No assignment hereof by either Party shall become effective without the written consent of the other Party being first obtained and such consent shall not be unreasonably withheld, except that PGE hereby acknowledges and consents to the collateral assignment from Seller to CoBank, ACB, for the benefit of the Seller's senior lenders, of all Seller's right, title and interests in and to this Agreement. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent as part of (a) a sale of all or substantially all of the assigning Party's assets, or (b) a merger, consolidation or other reorganization of the assigning Party.

# SECTION 20: ENTIRE AGREEMENT

- 20.1 This Agreement supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding PGE's purchase of Net Output from the Facility. No modification of this Agreement shall be effective unless it is in writing and signed by both Parties.
- 20.2 By executing this Agreement, Seller releases PGE from any third party claims related to the Facility, known or unknown, which may have arisen prior to the Effective Date.

## **SECTION 21: NOTICES**

All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:

General Manager

PáTu Wind Farm, LLC 1003 Boyer Avenue

Walla Walla, Washington 99362

with a copy to:

To Be Advised

To PGE:

Contracts Manager

QF Contracts, 3WTCBR06 PGE - 121 SW Salmon St. Portland, Oregon 97204

21.2 The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 21.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in their respective names as of the Effective Date.

**PGE** 

PáTu Wind Farm, LLC

Names F. Lobber

Title: VICETAESIDENT.

Name: Ormand Hilderbrand

Title: General Manager

# EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

The Patu Wind Farm (the Project) will be a 9.0 MW wind energy project 112 miles East of Portland, Oregon. The Project will consist of 6, GE 1.5sle wind turbines, each with a capacity of 1.5 MW. The Project will be constructed on 300 acres situated within 40,000 acres of contiguous property dedicated to the wind industry. The Project will interconnect and utilize transmission service with Wasco Electric Cooperative at 115kV.

The Project has executed a Firm Point to Point Transmission Services Agreement with BPA to transport the wind energy from the 115kV DeMoss substation to the 230kV Troutdale substation.

As a Qualifying Facility (QF) under PURPA, the project will sell 100% of its wind generated power output to Portland General Electric at the 230kV Troutdale Substation beginning in October, 2010.

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Appendix 1, Schedule 201 Standard Contract Off System Power Purchase Agreement For Intermittent Resources Effective November 2, 2007

# EXHIBIT B REQUIRED FACILITY DOCUMENTS

Generation Interconnection Agreement with WASCO Transmission Services Agreement with WASCO Transmission Services Agreement with BPA FAA Permit Sherman County Conditional Use Permit

## EXHIBIT C START-UP TESTING

Required factory testing includes such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility, which may include but are not limited to (as applicable):

- 1. Pressure tests of all steam system equipment;
- 2. Calibration of all pressure, level, flow, temperature and monitoring instruments:
- 3. Operating tests of all valves, operators, motor starters and motor;
- 4. Alarms, signals, and fail-safe or system shutdown control tests;
- 5. Insulation resistance and point-to-point continuity tests;
- 6. Bench tests of all protective devices;
- 7. Tests required by manufacturer of equipment; and
- 8. Complete pre-parallel checks with PGE.

Required start-up test are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufactured, installed and adjusted, function properly, and are capable of operating simultaneously in such condition that the Facility is capable of continuous delivery into PGE's electrical system, which may include but are not limited to (as applicable):

- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests:
- 4. Energization of transformers;
- 5. Synchronizing tests (manual and auto):
- 6. Stator windings dielectric test;
- 7. Armature and field windings resistance tests:
- 8. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 9. Heat runs:
- 10. Tests required by manufacturer of equipment;
- 11. Excitation and voltage regulation operation tests;
- 12. Open circuit and short circuit; saturation tests;
- 13. Governor system steady state stability test;
- 14. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering;
- 15. Auto stop/start sequence;
- 16. Level control system tests; and
- 17. Completion of all state and federal environmental testing requirements.

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Appendix 1, Schedule 201
Standard Contract Off System Power Purchase Agreement
For Intermittent Resources
Effective November 2, 2007

EXHIBIT D TARIFF Portland General Electric Company P.U.C. Oregon No. E-18

Third Revision of Sheet No. 201-1 Canceling Second Revision of Sheet No. 201-1

# SCHEDULE 201 QUALIFYING FACILITY 10 MW or LESS AVOIDED COST POWER PURCHASE INFORMATION

### **PURPOSE**

To provide information about Avoided Costs, Standard Contracts and negotiated Power Purchase Agreements, power purchase prices and price options for power delivered by a Qualifying Facility (QF) to the Company with nameplate capacity of 10,000 kW (10MW) or less.

(T)

### **AVAILABLE**

To owners of QFs making sales of electricity to the Company in the State of Oregon (Seller).

#### **APPLICABLE**

For power purchased from small power production or cogeneration facilities that are QFs as defined in 18 Code of Federal Regulations (CFR) Section 292, that meet the eligibility requirements described herein and where the energy is delivered to the Company's system and made available for Company purchase pursuant to a Standard Contract Power Purchase Agreement.

### **ESTABLISHING CREDITWORTHINESS**

The Seller must establish creditworthiness prior to service under this schedule. For a Standard Contract Power Purchase Agreement (Standard Contract), a Seller may establish creditworthiness with a written acknowledgment that it is current on all existing debt obligations and that it was not a debtor in a bankruptcy proceeding within the preceding 24 months. If the Seller is not able to establish creditworthiness, the Seller must provide security as deemed sufficient by the Company as set out in the Standard Contract.

### **POWER PURCHASE INFORMATION**

A Seller may call the Power Production Coordinator at (503) 464-8000 to obtain more information about being a Seller or how to apply for service under this schedule.

### **SCHEDULE 201 (Continued)**

### **POWER PURCHASE AGREEMENT**

In accordance with terms set out in this schedule and the Commission's Rules as applicable, the Company will purchase any Energy in excess of station service (power necessary to produce generation) and amounts attributable to conversion losses, which are made available from the Seller.

A Seller must execute a Power Purchase Agreement with the Company prior to delivery of power to the Company. The agreement will have a term of up to 20 years as selected by the QF.

A QF with a nameplate capacity rating of 10 MW or less as defined herein may elect the option of a Standard Contract.

Any Seller may elect to negotiate a Power Purchase Agreement with the Company. Such negotiation will comply with the requirements of the Federal Energy Regulatory Commission (FERC), and the Commission including the guidelines in Order No. 07-360, and Schedule 202. Negotiations for power purchase pricing will be based on the filed Avoided Costs in effect at that time.

### STANDARD CONTRACTS (Nameplate capacity of 10 MW or less)

A Seller choosing a Standard Contract will complete all informational and price option selection requirements in the applicable Standard Contract (Appendix 1 to this schedule) and submit the executed Agreement to the Company prior to service under this schedule. The Standard Contract is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard Contracts are: Standard Contract Power Purchase Agreement, Standard Contract Off System Power Purchase Agreement, Standard Contract for Intermittent Resources and Standard Contract for Off System Intermittent Resources. The Standard Contracts applicable to Intermittent Resources are available only to QFs utilizing wind, solar or run of river hydro as the primary motive force.

# **GUIDELINES FOR 10 MW OR LESS FACILITIES**

In order to execute the Standard Contract the Seller must complete all of the general project information requested in the applicable Standard Contract.

When all information required in the Standard Contract has been received in writing from the Seller, the Company will respond within 15 business days with a draft Standard Contract.

The Seller may request in writing that the Company prepare a final draft Standard Contract. The Company will respond to this request within 15 business days. In connection with such request, the QF must provide the Company with any additional or clarified project information that the Company reasonably determines to be necessary for the preparation of a final draft Standard Contract.

When both parties are in full agreement as to all terms and conditions of the draft Standard Contract, the Company will prepare and forward to the Seller a final executable version of the agreement within 15 business days. Following the Company's execution, a completely executed copy will be returned to the Seller. Prices and other terms and conditions in the power purchase agreement will not be final and binding until the Standard Contract has been executed by both parties.

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### SCHEDULE 201 (Continued)

### OFF SYSTEM POWER PURCHASE AGREEMENT

A Seller with a facility that interconnects with an electric system other than the Company's electric system may enter into a power purchase agreement with the Company after following the applicable standard or negotiated contract guidelines and making the arrangements necessary for transmission of power to the Company's system.

### **BASIS FOR POWER PURCHASE PRICE**

### **AVOIDED COST SUMMARY**

The power purchase rates are based on the Company's Avoided Costs. Avoided Costs are defined in 18 CFR 292.101(6) as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."

The Avoided Costs as listed in Tables 1 and 2 below include monthly On- and Off-Peak prices.

### **ON-PEAK PERIOD**

The On-Peak period is 6:00 a.m. until 10:00 p.m., Monday through Saturday.

### **OFF-PEAK PERIOD**

The Off-Peak period is 10:00 p.m. until 6:00 a.m., Monday through Saturday, and all day on Sunday.

Avoided Costs are based on forward market price estimates through December 2012, the period of time during which the Company's Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the period 2013 through 2028, the Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

### PRICING OPTIONS FOR STANDARD CONTRACTS

Pricing options represent the purchase price per MWh the Company will pay for electricity delivered to a Point of Delivery (POD) within the Company's service territory pursuant to a Standard Contract up to the nameplate rating of the QF in any hour. Any Energy delivered in excess of the nameplate rating will be purchased at the applicable Off-Peak Prices for the selected pricing option.

The Standard Contract pricing will be based on the Avoided Cost in effect at the time the agreement is executed.

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Third Revision of Sheet No. 201-4
Canceling Second Revision of Sheet No. 201-4

### **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

Four pricing options are available for Standard Contracts. The pricing options include one Fixed Rate Option and three Market Based Options.

### 1) Fixed Price Option

The Fixed Price Option is based on Avoided Costs including forecasted natural gas prices.

This option is available for a maximum term of 15 years. Sellers with contracts exceeding 15 years will make a one time election at execution to select a Market-Based Option for all years up to five in excess of the initial 15. Under the Fixed Price Option, prices will be as established at the time the Standard Contract is executed and will be equal to the Avoided Costs in Tables 1 and 2 effective at execution for a term of up to 15 years.

TABLE 1												
Avoided Costs Fixed Price Option												
	On-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32.71	31.59	32.46	41.21	50.34
2010	51.25	47.75	42.75	41.00	36.00	33.25	53.75	58.25	57.75	53.75	56.00	59.25
2011	60.30	56.80	53.55	47.55	40.80	39.55	64.05	66.80	63.55	58.80	62.05	65.05
2012	62.07	57.81	51.71	49.58	43.48	40.13	65.12	70.61	70.00	65.12	67.86	71.83
2013	97.44	97.41	95.83	90.96	90.67	91.16	91.72	92.21	92.38	92.90	94.45	96.26
2014	96.31	96.28	94.76	90.04	89.79	90.26	90.83	91.27	91.46	91.99	93.47	95.24
2015	94.54	94.51	93.07	88.60	88.36	88.81	89.35	89.76	89.94	90.45	91.85	93.52
2016	94.77	94.74	93.32	88.90	88.66	89.11	89.64	90.05	90.23	90.73	92.12	93.77
2017	97.00	96.97	95.52	90.99	90.75	91.21	91.75	92.17	92.35	92.86	94.28	95.97
2018	100.22	100.19	98.67	93.92	93.66	94.14	94.71	95.15	95.34	95.88	97.37	99.15
2019	104.73	104.70	103.07	97.98	97.71	98.22	98.83	99.30	99.51	100.08	101.68	103.58
2020	105.39	105.35	103.73	98.65	98.38	98.89	99.50	99.97	100.17	100.75	102.34	104.23
2021	107.84	107.81	106.14	100.94	100.67	101.19	101.81	102.29	102.50	103.09	104.72	106.66
2022	110.17	110.13	108.43	103.10	102.82	103.35	103.99	104.49	104.70	105.30	106.97	108.96
2023	113.96	113.92	112.13	106.56	106.26	106.82	107.49	108.01	108.23	108.86	110.61	112.69
2024	117.35	117.31	115.45	109.62	109.31	109.89	110.59	111.13	111.37	112.03	113.85	116.03
2025	119.74	119.70	117.80	111.86	<u>1</u> 11.55	112.14	112.85	113.41	113.65	114.32	116.18	118.40
2026	122.01	121.97	120.04	113.99	113.66	114.27	115.00	115.56	115.80	116.49	118.38	120.64
2027	124.33	124.29	122.32	116.15	115.82	116.44	117.18	117.75	118.00	118.70	120.63	122.93
2028	126.65	126.61	124.60	118.32	117.98	118.61	119.37	119.95	120.20	120.91	122.88	125.23

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### **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
FIXED PRICE OPTION (Continued)

TABLE 2												
Avoided Costs												
Fixed Price Option												
	Off-Peak Forecast (\$/MWH)											
Year Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov [												
2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26.59	27,21	27.71	35.21	43.71
2010	44.75	42.75	37.75	34.75	26.25	23.75	40.25	44.00	41.75	42.75	48.75	55.25
2011	55.30	51.80	48.05	36.80	29.80	27.30	45.30	50.55	50.30	49.80	53.80	57.05
2012	53.00	50.62	44.66	41.08	30.95	27.97	47.64	52.11	49,42	50.62	57.77	65.52
2013	64.67	64.64	63.06	58.19	57.89	58.39	58.94	59.44	59.60	60.13	61.68	63.49
2014	62.91	62.88	61.37	56.64	56.39	56.86	57.43	57.87	58.06	58.60	60.08	61.84
2015	60.51	60.48	59.04	54.57	54.33	54.78	55.32	55.73	55.91	56.42	57.82	59.49
2016	60.20	60.17	58.76	54.33	54.10	54.54	55.07	55.48	55.66	56.16	57.55	59.20
2017	61.55	61.52	60.07	55.55	55.30	55.76	56.30	56.72	56.90	57.42	58.83	60,52
2018	64.22	6 <u>4.</u> 19	62.66	57.91	57.66	58.13	58.70	59.15	59.34	59.88	61. <u>3</u> 7	63.14
2019	68.04	68.01	66.38	61.29	61.02	61.53	62.14	62.61	62.82	63.39	64.99	66.89
2020	68.12	68.08	66.46	61.38	61.11	61.62	62.23	62.70	62.91	63.48	65.07	66.97
2021	69.74	69.71	68.04	62.84	62.57	63.09	63.71	64.20	64.40	64.99	66.62	68.56
2022	71.34	71.31	69.60	64.28	63.99	64.53	65.17	65.66	65.88	66.48	68.15	70.14
2023	74.27	74.23	72.45	66.87	66.57	67.13	67.80	68.32	68.54	69.18	70.92	73.01
2024	77.17	77.13	75.26	69.44	69.12	69.71	70.41	70.95	71.18	71.84	73.67	75.84
2025	78.66	78.62	76.72	70.79	70.47	71.06	71.78	72.33	72.57	73.24	75.10	77.32
2026	80.16	80.12	78.18	72.13	71.81	72.41	73.14	73.70	73.94	74.63	76.53	78.78
2027	81.68	81.64	79.66	73.50	73.17	73.78	74.52	75.10	75.35	76.04	77.98	80.28
2028	83.19	83.15	81.14	74.85	74.52	75.15	75.90	76.49	76.74	77.45	79.42	81.77

Under the Fixed Price Option, the Company will pay Seller the Off-Peak Avoided Cost pursuant to Table 2 for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller the On-Peak Avoided Cost pursuant to Table 1 for all other output. (See Appendix 1, the Standard Contract for defined terms.)

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### SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

### **MARKET BASED PRICE OPTIONS:**

Market Based Price Options include Option 2, Deadband Index Gas Price; Option 3, Index Gas Price; and Option 4, Dow Jones Mid-Columbia Daily On- and Off-Peak Electricity Firm Price Index (DJ-Mid-C Firm Index). The price components for pricing Options 2 and 3 are defined as follows:

On Peak Price:

 $P_{Peak}$ 

Off Peak Price:

 $P_{\text{Off}}$ 

Variable Operating and Maintenance,

**VFG** 

Fixed Costs, and Gas Transportation (Table 6):

Capacity Value (Table 7):

С

Heat Rate:

HR = 6,732 BTU/kWh

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Losses:

1.9%

Forecasted Gas Price (Table 5):

 $GP_{F}$ 

First of Month\* Northwest Pipeline Corp.
Canadian Border Index as Reported in <u>Platts</u>

Inside FERC's Gas Market Report

GP<sub>Sumas</sub>

First of Month\* one-month spot price averages for AECO/NIT transactions as Reported in Canadian Gas Price Reporter

Natural Gas Market Report (in US dollars):

**GPAFCO** 

Monthly Indexed Gas Price:

 $GP_{MI} = (GP_{Sumas} + GP_{AECO})/2$ 

Deadband Gas Index:

GP<sub>DB</sub>

Where:

If GPMI>GPF

 $GP_{DB} = Minimum of (GP_{MI} or 1.1*GP_F)$ 

Otherwise

 $GP_{DB} = Maximum of (GP_{MI} or .9*GP_F)$ 

<sup>&</sup>quot;First of Month" means the first such monthly issuance.

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# **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
MARKET BASED PRICE OPTIONS (Continued)

Tables 3 and 4 below list applicable rates for Options 2 (Deadband Index Gas Price Option) and 3 (Index Gas Price Option) for the period through 2012. The monthly On- and Off-Peak prices will be applied for all Market Based Price Options.

TABLE 3	
Avoided Costs	(T)
On-Peak Resource Sufficiency Rate (\$/MWH)	

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2009	N/A	32.71	31.59	32.46	41.21	50.34						
2010	51.25	47.75	42.75	41.00	36.00	33.25	53.75	58.25	57.75	53.75	56.00	59.25
2011	60.30	56.80	53.55	47.55	40.80	39.55	64.05	66.80	63.55	58.80	62.05	65.05
2012	62.07	57.81	51.71	49.58	43.48	40.13	65.12	70.61	70.00	65.12	67.86	71.83

						TABLE 4						
					Ave	oided Co	sts					
				ff-Peak I	Resource	Sufficie	ncy Rate	(\$/MWH	)			
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aua	Sep	Oct	Nov	Dec
2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26.59	27.21	27,71	35.21	43,71
2010	44.75	42.75	37.75	34.75	26.25	23.75	40.25	44.00	41.75	42.75	48.75	55.25
2011	55.30	51.80	48.05	36.80	29.80	27.30	45.30	50.55	50.30	49.80	53.80	57.05
2011		50.62	44.66	41.08	30.95	27.97	47.64	52.11	49.42	50.62	57.77	65.52

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# SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
MARKET BASED PRICE OPTIONS (Continued)

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### 2) Deadband Index Gas Price Option

The Deadband Index Gas Price Option bases the fuel price component of the Energy rate on comparisons between the Forecast Gas Price (Table 5) and the simple average of the First of Month gas indices for Sumas and AECO trading hubs. The Northwest Pipeline Gas Index (Sumas) will be as reported in Platts Inside FERC's Gas Market Report. The AECO/NIT (AECO) Gas Index will be as reported in Canadian Gas Price Reporter Natural Gas Market Report (in US dollars). The fuel price component used will be bound between 90% and 110% of the natural gas price forecast but based on the then current gas price.

The price paid per MWh will be:

 $P_{Peak}$  =  $GP_{DB}^*HR/1,000/(1-Losses) + VFG + C$  $P_{Off}$  =  $GP_{DB}^*HR/1,000/(1-Losses) + VFG$ 

Under the Deadband method, the Company will pay Seller the Off-Peak prices for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the

Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases will be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

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Portland General Electric Company P.U.C. Oregon No. E-18

Third Revision of Sheet No. 201-9
Canceling Second Revision of Sheet No. 201-9

### **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
MARKET BASED PRICE OPTIONS (Continued)

### 3) Index Gas Price Option

The Index Gas Price Option is the simple average of the First of Month gas indices for Sumas and AECO trading hubs used in establishing the Avoided Costs. The Sumas Gas Index will be as reported in <u>Platts Inside FERC's Gas Market Report</u>. The AECO Gas Index will be as reported in the <u>Canadian Gas Price Reporter Natural Gas Market Report</u> (in US dollars).

The price paid per MWh will be:

 $P_{Peak}$  =  $GP_{MI}*HR/1,000/(1-Losses) +VFG +C$  $P_{Off}$  =  $GP_{MI}*HR/1,000/(1-Losses) +VFG$ 

Under the Index Gas Price, the Company will pay Seller the Off-Peak Prices for: (a) for all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard Contract; (d) for Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. All other purchases will be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

# 4) Mid C Index Price Option

Under this option, prices paid per MWh will be based on the DJ-Mid-C Firm Index plus 0.221 ¢ per kWh for wholesale wheeling.

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Portland General Electric Company P.U.C. Oregon No. E-18

Fourth Revision of Sheet No. 201-10 Canceling Third Revision of Sheet No. 201-10

# **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
MARKET BASED PRICE OPTIONS (Continued)

Table 5 contains the gas pricing components for Option 1 (Fixed Price Option) and Option 2 (T) (Deadband Index Gas Price Option).

						TABLE 5						
	Forecasted Gas Price - GP <sub>F</sub> (\$/MMBTU) - Without Transportation											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	7.41	7.41	7.18	6.48	6.44	6.51	6.59	6.66	6.69	6.76	6.98	7.24
2014	7.13	7.12	6.90	6.23	6.19	6.26	6.34	6.40	6.43	6.51	6.72	6.97
2015	6.75	6.74	6.54	5.89	5.86	5.92	6.00	6.06	6.09	6.16	6.36	6.60
2016	6.67	6.67	6.46	5.83	5.79	5.86	5.93	5.99	6.02	6.09	6.29	6.53
2017	6.82	6.82	6.61	5.96	5.93	5.99	6.07	6.13	6.16	6.23	6.43	6.67
2018	7.17	7.16	6.94	6.26	6.23	6.29	6.38	6.44	6.47	6.54	6.76	7.01
2019	7.68	7.67	7.44	6.71	6.67	6.74	6.83	6.90	6.93	7.01	7.24	7.51
2020	7.65	7.65	7.41	6.69	6.65	6.72	6.81	6.88	6.91	6.99	7.22	7.49
2021	7.84	7.84	7.60	6.85	6.81	6.89	6.98	7.05	7.08	7.16	7.39	7.67
2022	8.03	8.02	7.78	7.02	6.98	7.05	7.14	7.22	7.25	7.33	7.57	7.86
2023	8.41	8.40	8.15	7.35	7.30	7.38	7.48	7.56	7.59	7.68	7.93	8.23
2024	8.79	8.78	8.51	7.68	7.63	7.72	7.82	7.89	7.93	8.02	8.28	8.60
2025	8.95	8.95	8.67	7.82	7.78	7.86	7.97	8.04	8.08	8.18	8.44	8.76
2026	9.12	9.12	8.84	7.97	7.93	8.01	8.12	8.20	8.23	8.33	8.60	8.93
2027	9.30	9.29	9.01	8.12	8.08	8.16	8.27	8.35	8.39	8.49	8.77	9.10
2028	9.47	9.47	9.18	8.28	8.23	8.32	8.43	8.51	8.55	8.65	8.93	9.27

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# **SCHEDULE 201 (Continued)**

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
MARKET BASED PRICE OPTIONS (Continued)

Table 6 contains the Variable O&M and Fixed Costs that are derived from a natural gas-fired CCCT.

		<del></del> -	<del></del>			TABLE 6						
	Variable O&M, Fixed Costs and Gas Transportation Forecast - VFG (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	13.95	13.95	13.92	13.81	13.80	13.82	13.83	13.84	13.84	13.85	13.89	13.93
2014	14.15	14.15	14.12	14.02	14.01	14.02	14.03	14.04	14.05	14.06	14.09	14.13
2015	14.34	14.34	14.31	14.21	14.21	14.22	14.23	14.24	14.24	14.25	14.28	14.32
2016	14.56	14.56	14.52	14.43	14.42	14.43	14.44	14.45	14.46	14.47	14.50	14.53
2017	14.87	14.86	14.83	14.74	14.73	14.74	14.75	14.76	14.76	14.78	14.81	14.84
2018	15.18	15.18	15.15	15.04	15.04	15.05	15.06	15.07	15.07	15.09	15.12	15.16
2019	15.53	15.53	15.49	15.38	15.37	15.38	15.40	15.41	15.41	15.42	15.46	15.50
2020	15.76	15.76	15.73	15.62	15.61	15.62	15.64	15.65	15.65	15.66	15.70	15.74
2021	16.10	16.10	16.06	15.95	15.95	15.96	15.97	15.98	15.99	16.00	16.03	16.08
2022	16.41	16.41	16.38	16.26	16.25	16.27	16.28	16.29	16.29	16.31	16.34	16.39
2023	16.76	16.76	16.72	16.60	16.59	16.60	16.62	16.63	16.64	16.65	16.69	16.73
2024	17.08	17.08	17.04	16.91	16.90	16.92	16.93	16.94	16.95	16.96	17.00	17.05
2025	17.44	17.44	17.39	17.27	17.26	17.27	17.29	17.30	17.30	17.32	17.36	17.4
2026	17.77	17.77	17.72	17.59	17.59	17.60	17.62	17.63	17.63	17.65	17.69	17.74
2027	18.11	18.10	18.06	17.93	17.92	17.93	17.95	17.96	17.97	17.98	18.02	18.07
2028	18.41	18.41	18.37	18.23	18.22	18.24	18.25	18.27	18.27	18,29	18.33	18.38

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# SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)
MARKET BASED PRICE OPTIONS (Continued)

Table 7 represents the variable C in the formulas for Option 2 (Deadband Index Gas Price Option) and Option 3 (Index Gas Price Option).

Γ	<del></del>			<del></del>	<del></del>	TABLE 7						
	Capacity Value - C (\$/MWH)											
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	32.77	32.77	32.77	32.77	32.77	32.77	32.77	32.77	32.77	32.77	32.77	32.77
2014	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40
2015	34.03	34.03	34.03	34.03	34.03	34.03	34.03	34.03	34.03	34.03	34.03	34.03
2016	34.57	34.57	34.57	34.57	34.57	34.57	34.57	34.57	34.57	34.57	34.57	34.57
2017	35.45	35.45	35.45	35.45	35.45	35.45	35.45	35.45	35.45	35.45	35.45	35.45
2018	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01
2019	36.69	36.69	36.69	36.69	36.69	36.69	36.69	36.69	36.69	36.69	36.69	36.69
2020	37.27	37.27	37.27	37.27	37.27	37.27	37.27	37.27	37.27	37.27	37.27	37.27
2021	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10	38.10
2022	38.82	38.82	38.82	38.82	38.82	38.82	38.82	38.82	38.82	38.82	38.82	38.82
2023	39.69	39.69	39.69	39.69	39.69	39.69	39.69	39.69	39.69	39.69	39.69	39.69
2024	40.18	40.18	40.18	40.18	40.18	40.18	40.18	40.18	40.18	40.18	40.18	40.18
2025	41.08	41.08	41.08	41.08	41.08	41.08	41.08	41.08	41.08	41.08	41.08	41.08
2026	41.86	41.86	41.86	41.86	41.86	41.86	41.86	41.86	41.86	41.86	41.86	41.86
2027	42.65	42.65	42.65	42.65	42.65	42.65	42.65	42.65	42.65	42.65	42.65	42.65
2028	43.46	43.46	43.46	43.46	43.46	43.46	43.46	43.46	43.46	43.46	43.46	43.46

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Canceling Second Revision of Sheet No. 201-13

# **SCHEDULE 201 (Continued)**

# MONTHLY SERVICE CHARGE

Each separately metered QF not associated with a retail Customer account will be charged \$10.00 per month.

# INSURANCE REQUIREMENTS

The following insurance requirements are applicable to Sellers with a Standard Contract:

- 1) QFs with nameplate capacity ratings greater than 200 kW are required to secure and maintain a prudent amount of general liability insurance. The Seller must certify to the Company that it is maintaining general liability insurance coverage for each QF at prudent amounts. A prudent amount will be deemed to mean liability insurance coverage for both bodily injury and property damage liability in the amount of not less than \$1,000,000 each occurrence combined single limit, which limits may be required to be increased or decreased by the Company as the Company determines in its reasonable judgment economic conditions or claims experience may warrant.
- Such insurance will include an endorsement naming the Company as an additional insured insofar as liability arising out of operations under this schedule and a provision that such liability policies will not be canceled or their limits reduced without 30 days' written notice to the Company. The Seller will furnish the Company with certificates of insurance together with the endorsements required herein. The Company will have the right to inspect the original policies of such insurance.
- 3) QFs with a design capacity of 200 kW or less are encouraged to pursue liability insurance on his/her own. The Oregon Public Utility Commission in Order No. 05-584 determined that it is inappropriate to require QFs that have a design capacity of 200 kW or less to obtain general liability insurance.

### TRANSMISSION AGREEMENTS

If the QF is located outside the Company's service territory, the Seller is responsible for the transmission of power at its cost to the Company's service territory.

# INTERCONNECTION REQUIREMENTS

Except as otherwise provided in a generation Interconnection Agreement between the Company and Seller, if the QF is located within the Company's service territory, switching equipment capable of isolating the QF from the Company's system will be accessible to the Company at all times. At the Company's option, the Company may operate the switching equipment described above if, in the sole opinion of the Company, continued operation of the QF in connection with the utility's system may create or contribute to a system emergency.

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Portland General Electric Company P.U.C. Oregon No. E-18

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# **SCHEDULE 201 (Continued)**

# INTERCONNECTION REQUIREMENTS (Continued)

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The QF owner interconnecting with the Company's distribution system must comply with all requirements for interconnection as established pursuant to Commission rule, in the Company's Rules and Regulations (Rule C) or the Company's Interconnection Procedures contained in its FERC Open Access Transmission Tariff (OATT), as applicable. The Seller will bear full responsibility for the installation and safe operation of the interconnection facilities.

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# DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE THE STANDARD RATES AND STANDARD CONTRACT

A QF will be eligible to receive the standard rates and Standard Contract if the nameplate capacity of the QF, together with any other electric generating facility using the same motive force, owned or controlled by the same person(s) or affiliated person(s), and located at the same site, does not exceed 10 MW.

# Definition of Person(s) or Affiliated Person(s)

As used above, the term "same person(s)" or "affiliated person(s)" means a natural person or persons or any legal entity or entities sharing common ownership, management or acting jointly or in concert with or exercising influence over the policies or actions of another person or entity. However, two facilities will not be held to be owned or controlled by the same person(s) or affiliated person(s) solely because they are developed by a single entity.

Furthermore, two facilities will not be held to be owned or controlled by the same person(s) or affiliated person(s) if such common person or persons is a "passive investor" whose ownership interest in the QF is primarily related to utilizing production tax credits, green tag values and MACRS depreciation as the primary ownership benefit. A unit of Oregon local government may also be a "passive investor" if the local governmental unit demonstrates that it will not have an equity ownership interest in or exercise any control over the management of the QF and that its only interest is a share of the cash flow from the QF, which share will not exceed 20%. The 20% cash flow share limit may only be exceeded for good cause shown and only with the prior approval of the Commission.

### **Definition of Same Site**

For purposes of the foregoing, generating facilities are considered to be located at the same site as the QF for which qualification for the standard rates and Standard Contract is sought if they are located within a five-mile radius of any generating facilities or equipment providing fuel or motive force associated with the QF for which qualification for the standard rates and standard contract is sought.

M)

**Portland General Electric Company** P.U.C. Oregon No. E-18

Third Revision of Sheet No. 201-15 Canceling Second Revision of Sheet No. 201-15

## SCHEDULE 201 (Concluded)

**(T)** 

DEFINITION OF A SMALL COGENERATION FACILITY OR SMALL POWER PRODUCTION FACILITY ELIGIBLE TO RECEIVE THE STANDARD RATES AND STANDARD CONTRACT (Continued)

(M)

### Shared Interconnection and Infrastructure

QFs otherwise meeting the above-described separate ownership test and thereby qualified for entitlement to the standard rates and Standard Contract will not be disqualified by utilizing an interconnection or other infrastructure not providing motive force or fuel that is shared with other QFs qualifying for the standard rates and Standard Contract so long as the use of the shared interconnection complies with the interconnecting utility's safety and reliability standards, interconnection contract requirements and Prudent Electrical Practices as that term is defined in the interconnecting utility's approved Standard Contract.

# **Dispute Resolution**

Upon request, the QF will provide the purchasing utility with documentation verifying the ownership, management and financial structure of the QF in reasonably sufficient detail to allow the utility to make an initial determination of whether or not the QF meets the abovedescribed criteria for entitlement to the standard rates and Standard Contract. Any dispute concerning a QF's entitlement to the standard rates and Standard Contract will be presented (T) to the Commission for resolution.

### **SPECIAL CONDITIONS**

- 1. Delivery of energy by Seller will be at a voltage, phase, frequency, and power factor as specified by the Company.
- 2. If the Seller also receives retail Electricity Service from the Company at the same location, any payments under this schedule will be credited to the Seller's retail Electricity Service bill. At the option of the Customer, any net credit over \$10.00 will be paid by check to the Customer.
- 3. Contracts entered into pursuant to this schedule will not terminate prior to the Standard or negotiated contract's termination date if the 1978 Public Utility Regulatory Policies Act (PURPA) is repealed.

### TERM OF AGREEMENT

Not less than one year and not to exceed 20 years.

# UM 1931 PGE Exhibit 214

December 14, 2015, letter from Denise Saunders to Greg Adams



V. Denise Saunders
Associate General Counsel

December 14, 2015

Via First Class and Electronical Mail: greg@richardsonadams.com

Gregory M. Adams Richardson Adams, PLLC Attorneys at Law P.O. Box 7218 Boise, ID 83707

RE: Tygh Valley Solar I LLC, Dayton Solar I LLC, and Wasco Solar I LLC

### Dear Greg:

I am writing in response to your letter of December 3, 2015 in which you seek clarification, on behalf of Tygh Valley Solar I LLC, Dayton Solar I LLC, and Wasco Solar I LLC, as to the date on which the 15 year period of fixed price rates commences under Portland General Electric Company's ("PGE") standard qualifying facilities ("QF") contracts.

The language in PGE's standard contracts unambiguously defines the start of the term in Section 1.38 as "the period beginning on the Effective Date and ending on the Termination Date." The "Effective Date" is defined in Section 2.1 as the date the agreement is executed by both parties. Similarly, PGE's Schedule 201 makes it clear that "prices will be established at the time the Standard PPA is executed." PGE's standard contract and Schedule 201 have both been approved by the Commission.

In your letter you argue that PGE's treatment of this issue is different than that of other utilities. However, as you know, PGE is only obligated to follow its own Commission-approved contracts and schedules, not those of other utilities. Nor is it required to conform to practices under prior contracts no longer in effect.

In addition, Order No. 05-584 which you cite in your letter makes it clear that the Commission intended that the term of the standard contracts should not exceed 20 years:

Given our desire to calculate avoided costs as accurately as possible, and the testimony of several parties that avoided costs should not be fixed beyond 15 years, we are persuaded that standard contract prices should be fixed for only the first 15 years of the 20-year term. Tariffs and standard contract terms should provide that, in the event a QF opts for a standard contract with a 20-year term, the QF must take one of the market pricing options that we address later in this order for the final five years of the contract. (emphasis added)

Mr. Gregory M. Adams December 14, 2015 Page 2

If the 15 year fixed cost pricing of the 20-year term started on the COD, which can be several years after the execution date, the term of the contract would exceed 20 years. This was clearly not the intent of the Commission as evidenced by language quoted above and the Commission's statements in the order expressing concern with the potential divergence in avoided cost prices that are likely to occur with long fixed terms. Please note also that PGE's Schedule 201 states that the renewable fixed price option "is available for a **maximum** term of 15 years." (emphasis added.) The Commission clearly did not intend to guarantee every project 15 years of fixed prices. Moreover, under the framework adopted by the Commission in Order No. 05-584, QFs are in control of when their projects reach COD and thus are incentivized to reach COD as early as possible to take advantage of the 15 year fixed cost pricing.

In short, it is our view that under Order No. 05-584 and the unambiguous language in PGE's standard contracts and its Schedule 201, the 15 year fixed price term of PGE's current standard contracts starts at execution.

Sincerely,

V. Denise Saunders

Associate General Counsel

VDS:bop

c: Brue True, PGE

# UM 1931 PGE Exhibit 215

December 18, 2015, email from Jake Stephens to Bruce True

#### Message

From: Jake Stephens [jake@jakestephens.com]

**Sent**: 12/18/2015 4:20:36 PM

**To**: Bruce True [bruce.true@pgn.com]

**Subject**: PPAs for Tygh Valley, Wasco, and Dayton Solar I projects

Attachments: Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - TYGH VALLEY SOLAR I v2 - REDLINE vs Blank

Orig PPA form.docx; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - TYGH VALLEY SOLAR I v2 - REDLINE vs Starvation v1.docx; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - TYGH VALLEY SOLAR I v2 CLEAN (submitted to PGE 2015.12.18) SIGNED by SELLER.pdf; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - TYGH VALLEY SOLAR I v2 CLEAN (submitted to PGE 2015.12.18).docx; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - WASCO SOLAR I v2 - REDLINE vs blank 2015.09.23 Sched 201 Renewable Off System PPA.docx; Schedule 201 RENEWABLE Off System Variable

PPA\_Effective\_09.23.15 - WASCO SOLAR I v2 - REDLINE vs Starvation v1.docx; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - WASCO SOLAR I v2 CLEAN (submitted to PGE 2015.12.18) SIGNED by Seller.pdf; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - WASCO SOLAR I v2 CLEAN (submitted to PGE 2015.12.18).docx; RENEWABLE In System Variable PPA\_Effective\_09.23.15 - Dayton Solar I v2 CLEAN.doc; RENEWABLE In System Variable PPA\_Effective\_09.23.15 - Dayton Solar I v2 Redline vs blank orig Sched 201 in system renewable variable PPA.docx; RENEWABLE In System Variable PPA\_Effective\_09.23.15 - Dayton Solar I v2 Redline vs v1.docx; Schedule 201 RENEWABLE Off System Variable PPA\_Effective\_09.23.15 - DAYTON SOLAR I v2 CLEAN

(submitted to PGE 2015.12.18) SIGNED by Seller.pdf

#### Dear Bruce.

As regards the planned three 10 MW Qualified Facilities for which NewSun Energy Holdings Oregon LLC had previously submitted PPAs to you for the projects and companies below, please find attached updated PPAs in which the sole remaining items of concern identified by PGE are addressed (outside COD and contract termination dates), per your prior correspondence to me on each. The Sellers remain committed to their obligation to sell their entire outputs and perform under the PGE Schedule 201 renewable energy standard contracts and solar pricing in effect upon their submission dates (the September 23, 2015 editions) as applicable to each project, as they have been since their original submission.

#### Projects (Sellers)

- Tygh Valley Solar I (Tygh Valley Solar I LLC)
- Wasco Solar I (Wasco Solar I LLC)
- Dayton Solar I (Dayton Solar I LLC)

Per PGE's preference, a) the COD has been set for 3 years from Effective Date; and, b) termination date has be defined as after 16th Contract Year -- both exactly as in the Starvation Solar I submission which PGE approved.

For your convenience, I've attached four (4) versions of the PPA standard contract, as follows, for each project:

- Clean word doc
- PPA redline vs Starvation Solar I v1 (off system) or last submission (Dayton), so you can compare against the PPA and language already approved by PGE for that project. Other project info and the contract remains the same as previously submitted and I'm happy to provide a redline against each project's last submission as well.
- PPA redline vs the original Schedule 201 renewable PPA (in system or off system, as applicable)
- Signed Copy. As the Sellers each remain committed to selling their full output to PGE per the original submissions under the Sept 23, 2015 Schedule 201 renewable variable PPA standard contracts, as they have been since their original submission, a signed copy is attached here, in honor of that Seller's agreement to this.

### Other Notes:

- COD: Set to 3 years from Effective Date (same as Starvation Solar I), despite our belief that we reasonably demonstrated, per correspondence from the account executive at transmission provider BPA, and section 2.2 language, that more than 3 years was necessary.
- Termination Date: Set to end of 16th Contract Year (same as Starvation Solar I)
- Tygh Valley Solar I GIA updated to be with BPA, not Wasco Coop, as PGE preferred this.
- Other corresponding project information and language from the original PPA submissions for each remains the same as per the prior PPA
  drafts submitted, so should be the same as your last review per project: Seller, location, energy forecasts, facility size and description and
  energy production levels.

### UM 1931 / PGE / 215 True / Page 2

- While we don't agree with PGE's position and interpretation on the matters of the outside allowable COD and termination date and the length of fixed pricing, changes acceptable to PGE have been made to COD and termination date to allow the process of finishing these contracts to move forward, as the development needs to move forward.
- You have separately received the current Form 556 for each project.

I appreciate your efforts on processing these, Bruce, and am excited to bring these projects into the PGE resource portfolio. I appreciate your assistance and look forward to the formal execution of this agreement by PGE. I presume that if the document that the Effective Date will be updated based on PGE date of signing the document.

Best regards,

Jake Stephens Principal NewSun Energy Holdings Oregon LLC 520-981-7303

# UM 1931 / PGE / 300 Khandoker

# BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

# **UM 1931**

# PORTLAND GENERAL ELECTRIC COMPANY

ALFALFA SOLAR I, LLC; DAYTON SOLAR I, LLC; FORT ROCK SOLAR I, LLC; FORT ROCK SOLAR II, LLC; FORT ROCK SOLAR IV, LLC; HARNEY SOLAR I, LLC; RILEY SOLAR I, LLC; STARVATION SOLAR I, LLC; TYGH VALLEY SOLAR I, LLC; AND WASCO SOLAR I, LLC

PORTLAND GENERAL ELECTRIC COMPANY

Direct Testimony and Exhibits of

Ryin Khandoker

December 7, 2018

# **Table of Contents**

I.	INTRODUCTION	. 1
II.	FINANCIAL ANALYSIS	. 2
III.	QUALIFICATIONS	. 6
LIST	Γ OF EXHIBITS	. 7

# I. INTRODUCTION

Q.	Please	state	your	name	and	position.

A. My name is Ryin Khandoker. I am an Originator in the Structuring and Origination Department at Portland General Electric Company ("PGE"). My qualifications are stated at the end of this testimony.

# Q. What is the purpose of your testimony?

A. My testimony supports PGE's January 25, 2018 complaint against the following ten qualifying facilities ("QFs"): Alfalfa Solar I, LLC; Dayton Solar I, LLC; Fort Rock Solar I, LLC; Fort Rock Solar II, LLC; Fort Rock Solar IV, LLC; Harney Solar I, LLC; Riley Solar I, LLC; Starvation Solar I, LLC; Tygh Valley Solar I, LLC; and Wasco Solar I, LLC (collectively, the "NewSun Parties" or "NewSun").

The complaint asks the Public Utility Commission of Oregon ("Commission") to interpret ten standard power purchase agreements executed by PGE and the ten NewSun Parties during the first half of 2016 (the "NewSun PPAs"). In PGE's view, PGE is obligated to pay fixed prices for any net output delivered during the first 15 years of the contracts, measured from contract execution. In the NewSun Parties' view, PGE is obligated to pay fixed prices for 15 years following the date each QF begins commercial operation.

The purpose of my testimony is to provide the Commission with an estimate of the difference in economic impact on PGE's customers of these competing interpretations of the NewSun PPAs. Because the NewSun PPAs are based on standard contract forms, the interpretation of the NewSun PPAs could also lead to similar interpretations of approximately 52 other executed power

purchase agreements. The language of these other PPAs is similar to but not necessarily identical to the corresponding language in the NewSun PPA. In this testimony, I have also estimated the economic impact on PGE's customers if all 52 executed PPAs with terms and conditions similar to the NewSun PPAs are interpreted as requiring PGE to pay fixed prices for 15 years, measured from the actual commercial operation date, rather than the date of contract execution.

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My testimony supplements the direct testimony of Robert Macfarlane and the direct testimony of Bruce True.

### II. FINANCIAL ANALYSIS

Q. 9 Have you conducted a financial analysis to estimate the impact on PGE's 10 customers of the NewSun Parties' interpretation that the 15-year fixed price period starts at the actual commercial operation date and not at execution? 11 12 A. Yes, I have completed a study showing the harm to PGE's customers. For the ten contracts directly impacted by this case, the estimated harm to customers is 13 between \$44 million and \$62 million. However, there are approximately 52 power 14 15 purchase agreements with similar, but not identical, contractual terms. If NewSun's position were applied to each of these PPAs and the NewSun PPAs (62) 16 PPAs total) and the applicable facilities become operational, the overall harm to 17 our customers is estimated to be between \$143 million and \$200 million. The 18 financial impact is estimated in nominal dollars. 19

How did you estimate the potential harm to PGE's customers?

Let's take a typical PPA with a term of 20 years from execution and a commercial

operation date that occurs three years after execution. For purposes of determining

the harm to customers, the critical years are years 16, 17, and 18 after execution. For the first three years after execution of the PPA, there is no difference in impact to customers between PGE's and New Sun's interpretation because there are no deliveries expected. Similarly, there is no impact on customers for years 4 through 15 after execution because both PGE and NewSun agree that the fixed prices in the PPA apply during this period. The same applies to the 19th and 20th years after execution during which time market prices apply under both PGE's and NewSun's interpretation of the PPAs. The years in dispute are the 16th through 18th years after execution when NewSun claims fixed prices should apply and PGE claims that it is required to pay market prices. The difference between the fixed prices and market prices for these three years determines the magnitude of the harm to our customers associated with NewSun's interpretation of the NewSun PPAs. The graphic below illustrates this point:

# Milestones for generic 20 year Qualifying Facility PPA



- Q. Why do you estimate the impact on customers within a range of potential impact?
- A. When determining the potential harm to customers, I must use an estimate of the market prices for the applicable years in questions, which usually occur in the early 2030s. I used two different market prices from PGE's most recently filed integrated resource plan. A "no-carbon regulation" scenario estimates market prices assuming there is not comprehensive carbon regulation at the time of energy delivery. The "carbon regulation" scenario uses market prices assuming there is comprehensive carbon regulation at the time of energy delivery.
- Q. What is your assessment of the harm to customers if the 15-year fixed price period begins at the commercial operation date as NewSun contends.
- A. For the ten NewSun PPAs directly at issue in this proceeding, the estimated harm 12 to customers is \$62 million using "no-carbon regulation" market prices and \$44 13 14 million using "carbon regulation" market prices. For the 52 PPAs with similar PPA provision, the estimated harm to customers is \$138 million using "no-carbon 15 regulation" market prices and \$99 million using "carbon regulation" market 16 17 prices. In total, the estimated harm to PGE's customers for all 62 PPAs is \$143 million using "carbon regulation" market prices and \$200 million using "no-18 19 carbon regulation" market prices. PGE Exhibit 301 provides a summary of the 20 analysis.
- Q. What assumptions did you make regarding QF development under the PPAs you studied.

1 A. I assumed each QF covered by a PPA becomes operational. To the extent not all QFs under contract become operational, the harm to our customers would be 2 reduced. I also assumed that the ten NewSun projects take advantage of their one-3 year cure period to achieve commercial operation and begin delivering net output 4 48 months after the contract effective date and that, under NewSun's 5 interpretation, the 15-year fixed price period begins on the actual commercial 6 operation date. I made this assumption because it is unrealistic to assume that the 7 as-yet-unconstructed projects will achieve commercial operation on their 8 9 scheduled commercial operation dates of 36 months after contract execution, because those dates fall between January 2019 and June 2019. 10

# Q. Is a precise estimate of financial harm to customers important?

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A more precise estimate is not important; I present this information not for the precise financial impact but rather to provide context for this issue, to provide further evidence regarding how the issue of the 15-year fixed price period fits into the Commission's implementation of PURPA, and to provide the Commission with a sense of the magnitude of the impact on PGE's customers associated with the parties' differing interpretations of the PPAs.

# III. QUALIFICATIONS

- 1 Q. Please state your educational background and experience.
- 2 A. I received a Bachelor in Science degree from Oregon State University, with a
- focus in Electrical Engineering, and a Masters in Finance from Portland State
- 4 University. Since joining PGE in 2006, I have worked as an Engineer, Business
- 5 Analyst, and Originator.
- 6 Q. Does this conclude your testimony?
- 7 A. Yes.

# LIST OF EXHIBITS

PGE Exhibit	<u>Description</u>
301	Tables Providing Economic Analysis Based on a "no carbon regulation" and "carbon regulation" market price forecast

### **Portland General Electric**

Table 1
Total Payments Over Contract Term (Nominal \$)
With Carbon Constraints Included in Market Price After Fixed Pricing Ends
NewSun Solar Projects Only - Using One-Year Cure Period

	9/23/15 Vintage
15 Years Fixed Prices from Execution	\$ 274,581,003
15 Years Fixed Prices from COD	\$ 318,442,879
Customer Harm (COD Minus Execution)	\$ 43,861,875

Table 2
Total Payments Over Contract Term (Nominal \$)
With Carbon Constraints Included in Market Price After Fixed Pricing Ends
All Projects Including NewSun
NewSun Projects Achieve COD after a one year cure period. All other projects achieve COD as scheduled.

Vintage	12/17/2014	9/23/2015	8/12/2016	TOTAL
15 Years Fixed Prices from Execution	\$ 117,838,317	\$ 972,628,833	\$ 193,292,434	\$ 1,283,759,584
15 Years Fixed Prices from COD	\$ 129,374,030	\$ 1,098,896,866	\$ 198,831,006	\$ 1,427,101,902
Customer Harm (COD Minus Execution)	\$ 11,535,713	\$ 126,268,033	\$ 5,538,572	\$ 143,342,318

### **Portland General Electric**

Table 3

Total Payments Over Contract Term (Nominal \$)

No Carbon Constraints Included in Market Price After Fixed Pricing Ends

NewSun Solar Projects Only - Using One-Year Cure Period

	9/23,	/15 Vintage
15 Years Fixed Prices from Execution	\$	250,378,996
15 Years Fixed Prices from COD	\$	312,798,687
Customer Harm (COD Minus Execution)	\$	62,419,692

Table 4

Total Payments Over Contract Term (Nominal \$)

No Carbon Constraints Included in Market Price After Fixed Pricing Ends

All Projects Including NewSun

NewSun Projects Achieve COD after a one year cure period. All other projects achieve COD as scheduled.

Vintage	12/17/2014	9/23/2015	8/12/2016	TOTAL	
15 Years Fixed Prices from Execution	\$ 110,081,406	\$ 900,842,658	\$ 186,518,934	\$	1,197,442,998
15 Years Fixed Prices from COD	\$ 125,350,265	\$ 1,076,099,750	\$ 195,994,226	\$	1,397,444,240
Customer Harm (COD Minus Execution)	\$ 15,268,858	\$ 175,257,092	\$ 9,475,292	\$	200,001,242