BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

UM 1876

Served electronically at Salem, Oregon, 8/8/17, to:

Respondent's Attorney V. Denise Saunders Portland General Electric Company 121 SW Salmon Street Portland, Oregon 97204 <u>denise.saunders@pgn.com</u> Complainant's Attorneys & Representative Irion A. Sanger Sidney Villanueva Sanger Law, PC 1117 SE 53rd Avenue Portland, Oregon 97215 irion@sanger-law.com sidney@sanger-law.com

Jay Sonnenberg Saddle Butte Solar LLC 1710 29th Street, Suite 1068 Boulder, Colorado 80301 jsonnenberg@juwiamericas.com

Re: UM 1876, Complainant SADDLE BUTTE SOLAR, LLC vs. PORTLAND GENERAL ELECTIRC COMPANY, Respondent

Saddle Butte Solar, LLC has filed a complaint against Portland General Electric. A copy of the complaint is attached and served on Respondent, under ORS 756.512(1). The Commission has assigned Docket No. UM 1876 to this complaint. Please use this number whenever you refer to this case.

The Public Utility Commission must receive an Answer from the Respondent or their attorney by August 28, 2017, under OAR 860-001-0400(4)(a). A copy must be served on the complainant.

After the filing of the answer, the matter will be set for hearing and you will be notified of the time and place.

PUBLIC UTILITY COMMISSION OF OREGON

/s/Cheryl Walker Cheryl Walker Administrative Specialist 2 Administrative Hearings Division (503) 378-2849

c: Barbara Parr, barbara.parr@pgn.com

Attachments: Complaint; Notice of Contested Case Rights and Procedures

NOTICE OF CONTESTED CASE RIGHTS AND PROCEDURES

Oregon law requires state agencies to provide parties written notice of contested case rights and procedures. Under ORS 183.413, you are entitled to be informed of the following:

Hearing: The time and place of any hearing held in these proceedings will be noticed separately. The Commission will hold the hearing under its general authority set forth in ORS 756.040 and use procedures set forth in ORS 756.518 through 756.610 and OAR Chapter 860, Division 001. Copies of these statutes and rules may be accessed via the Commission's website at <u>www.puc.state.or.us</u>. The Commission will hear issues as identified by the parties.

Right to Attorney: As a party to these proceedings, you may be represented by counsel. Should you desire counsel but cannot afford one, legal aid may be able to assist you; parties are ordinarily represented by counsel. The Commission Staff, if participating as a party in the case, will be represented by the Department of Justice. Generally, once a hearing has begun, you will not be allowed to postpone the hearing to obtain counsel.

Administrative Law Judge: The Commission has delegated the authority to preside over hearings to Administrative Law Judges (ALJs). The scope of an ALJ's authority is defined in OAR 860-001-0090. The ALJs make evidentiary and other procedural rulings, analyze the contested issues, and present legal and policy recommendations to the Commission.

Hearing Rights: You have the right to respond to all issues identified and present evidence and witnesses on those issues. *See* OAR 860-001-0450 through OAR 860-001-0490. You may obtain discovery from other parties through depositions, subpoenas, and data requests. *See* ORS 756.538 and 756.543; OAR 860-001-0500 through 860-001-0540.

Evidence: Evidence is generally admissible if it is of a type relied upon by reasonable persons in the conduct of their serious affairs. *See* OAR 860-001-0450. Objections to the admissibility of evidence must be made at the time the evidence is offered. Objections are generally made on grounds that the evidence is unreliable, irrelevant, repetitious, or because its probative value is outweighed by the danger of unfair prejudice, confusion of the issues, or undue delay. The order of presenting evidence is determined by the ALJ. The burden of presenting evidence to support an allegation rests with the person raising the allegation. Generally, once a hearing is completed, the ALJ will not allow the introduction of additional evidence without good cause.

Record: The hearing will be recorded, either by a court reporter or by audio digital recording, to preserve the testimony and other evidence presented. Parties may contact the court reporter about ordering a transcript or request, if available, a copy of the audio recording from the Commission for a fee set forth in OAR 860-001-0060. The hearing record will be made part of the evidentiary record that serves as the basis for the Commission's decision and, if necessary, the record on any judicial appeal.

Final Order and Appeal: After the hearing, the ALJ will prepare a draft order resolving all issues and present it to the Commission. The draft order is not open to party comment. The Commission will make the final decision in the case and may adopt, modify, or reject the ALJ's recommendation. If you disagree with the Commission's decision, you may request reconsideration of the final order within 60 days from the date of service of the order. *See* ORS 756.561 and OAR 860-001-0720. You may also file a petition for review with the Court of Appeals within 60 days from the date of service of the order. *See* ORS 756.610.

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BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

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Saddle Butte Solar LLC, Complainant,

v.

Portland General Electric Company, Defendant.

DOCKET NO.

COMPLAINT

1 I. **INTRODUCTION** 2 This is a complaint ("Complaint") filed by Saddle Butte Solar LLC ("Saddle 3 Butte Solar" or "Complainant") with the Oregon Public Utility Commission (the 4 "Commission" or "OPUC") under Oregon Revised Statute ("ORS") 756.500 and Oregon 5 Administrative Rule ("OAR") 860-001-0170. Portland General Electric Company 6 ("PGE" or the "Company") has not agreed to purchase the net output from Saddle Butte 7 Solar's solar qualifying facility ("QF") ("Saddle Butte Solar Project") as a mandatory 8 purchase under the Public Utility Regulatory Policies Act of 1978 ("PURPA"). PGE has 9 failed to comply with its own rate Schedule 201, the Commission's rules and policies, the 10 Federal Energy Regulatory Commission's ("FERC") rules and policies, and the Oregon

PAGE 1 -- COMPLAINT

and federal PURPA statutes. PGE has refused to finalize or execute a power purchase
 agreement ("PPA") with Saddle Butte Solar.

3 Saddle Butte Solar has formed a legally enforceable obligation because it has 4 been ready, willing, and able to sign a PPA with PGE since at least August 3, 2017, and 5 has repeatedly and unequivocally committed itself to sell the net output to PGE at the 6 Schedule 201 avoided cost rates and standard PPA terms and conditions that are currently 7 in effect. This includes Saddle Butte Solar obligating itself to provide power or be 8 subject to penalty pursuant to the standard PPA terms and conditions for failing to deliver 9 energy on the scheduled commercial on-line date. PGE should be required to execute a 10 PPA with Saddle Butte Solar because the establishment of a legally enforceable obligation turns on Saddle Butte Solar's commitment, and not PGE's actions. 11 12 Saddle Butte Solar has formed a legally enforceable obligation despite PGE's 13 failure to execute a PPA because PGE has violated PURPA, the Commission's and 14 FERC's rules and policies, and its own Schedule 201. PGE's actions that have sought to 15 prevent Saddle Butte Solar from forming a legally enforceable obligation include, but are 16 not limited to: 1) delaying the PPA negotiation process; 2) seeking interim relief to prevent Saddle Butte Solar from being able to execute a PPA;¹ 3) refusing to inform 17 18 Saddle Butte Solar that it was going to make or had made its Solar Limitation Filing;² 4)

¹ Specifically, PGE has proposed to lower the size threshold for standard contract prices to 2 to 3 megawatts ("MW") and impose a permanent lifetime cap on any owner that prevents them from even requesting more than 10 MW of standard contract QF projects ("Solar Limitation Filing"). PGE has sought interim relief to make the Solar Limitation Filing retroactive to June 30, 2017. If granted, then these restrictions would apply to Saddle Butte Solar.

² PGE's purpose in not informing Saddle Butte Solar was to ensure that Saddle Butte Solar would not complete and execute a PPA prior to June 30, 2017. PGE decided sometime in early 2017 that it would attempt to delay the PPA

1	seeking an early rate effective date for its post Integrated Resource Plan avoided cost rate
2	update; ³ 5) failing to inform Saddle Butte Solar that PGE is seeking an early rate
3	effective date for its post Integrated Resource Plan avoided cost rate update; 6) stating
4	that it was not willing to provide Saddle Butte Solar with an executable PPA or otherwise
5	execute a PPA; 7) refusing to provide an executable PPA or otherwise execute a PPA that
6	should have been provided; ⁴ and 8) claiming that it no longer needs to comply with the
7	law since it has sought interim relief seeking to change the Commission's PURPA
8	policies. PGE is required to comply with Commission orders and policies, and cannot
9	unilaterally refuse to comply with the law or prevent Saddle Butte Solar from forming a
10	legally enforceable obligation simply because it has sought, but not yet obtained,
11	equitable relief seeking to retroactively lower the solar size threshold and impose a
12	permanent lifetime cap on any one owner requesting standard contract and rate PPAs.

negotiation process past June 30, 2017, and that it would refuse to provide an executable PPA, if it was able to delay negotiations past June 30, 2017. But for PGE keeping its plans a secret, Saddle Butte Solar's PPA would have been more expeditiously processed and it could have been fully executed.

³ On August 4, 2017, PGE announced in its 2016 IRP that PGE will ask the Commission to change its current avoided cost rate process (which re-sets avoided cost rates only after approval of a new rate filing that is made 30 days after the IRP acknowledgment) to instead ensure that the avoided cost prices paid to QFs that enter into contracts or achieve a legally enforceable obligation after the Commission's acknowledgement will no longer to be eligible for the current rates ("August Early Rate Effective Date Request").

⁴ Saddle Solar has been working on obtaining a PPA for over five months, and has requested a final and executable PPA. Under FERC's policies and rules, a legally enforceable obligation can be effectuated in less than one month. Under the Commission's policies and Schedule 201, an executable contract can generally be provided in less than two months from initial request. In addition, Saddle Solar would have requested and obtained an executable PPA earlier, if PGE had provided advance notice of the May 1, 2017 avoided cost rate update, or its Solar Limitation Filing.

1	The Commission cannot revise its own rules or policies to lower the size		
2	threshold, impose an ownership cap, or make other changes in a manner that effectively		
3	prevents Saddle Butte Solar from committing itself to sell the net output of its Project or		
4	otherwise creating a legally enforceable obligation. Saddle Butte Solar has relied upon		
5	the Commission maintaining a settled and uniform institutional climate for QFs, and		
6	upholding its policies regarding eligibility for standard avoided cost rates and contracts,		
7	including ensuring that Saddle Butte Solar is able to enter contracts or create legally		
8	enforceable obligations based on the policies and rules in effect at the time that the QF		
9	makes its request for a PPA.		
10	Given PGE's refusal to execute a PPA and attempt to change Commission		
11	policies to prevent Saddle Butte Solar from executing a PPA, Saddle Butte Solar		
12	respectfully requests that the Commission confirm: 1) that Saddle Butte Solar has a		
13	legally enforceable obligation with PGE based on its commitment to sell its net output		
14	under the partially executed PPA, which is the same as the Commission's approved		
15	contract and rates and the last draft PPA provided by PGE; and 2) require PGE to enter		
16	into a PPA with Saddle Butte Solar with the rates, terms, and conditions under Schedule		
17	201 and the standard renewable PPA currently in effect.		
18	II. SERVICE		
19	Copies of all pleadings and correspondence should be served on Saddle Butte		
20	Solar's counsel and representatives at the addresses below:		
21 22 23 24 25	Irion SangerJay SonnenbergSanger Law, PCSaddle Butte Solar LLC1117 SE 53rd Ave.1710 29th Street, Suite 1068Portland, Oregon 97215Boulder, Colorado 80301irion@sanger-law.comjsonnerberg@juwiamericas.com		

1 2 3 4 5 6 7	Sidney Villanueva Sanger Law, PC 1117 SE 53rd Ave. Portland, Oregon 97215 sidney@sanger-law.com
7	In support of this Complaint, Saddle Butte Solar alleges as follows:
8	III. IDENTITY OF THE PARTIES
9	1. PGE is an investor-owned public utility regulated by the Commission
10	under ORS Chapter 757. PGE is headquartered at 121 Southwest Salmon Street,
11	Portland, Oregon 97204.
12	2. Saddle Butte Solar, a limited liability company organized under the laws
13	of Delaware, is the owner of the Saddle Butte Solar Project and will be the seller of the
14	net output of the Saddle Butte Solar Project. Saddle Butte Solar's mailing address is
15	Saddle Butte Solar 1710 29th Street, Suite 1068, Boulder, Colorado 80301.
16	IV. APPLICABLE STATUTES AND RULES
17	3. The Oregon statutes expected to be involved in this case include:
18	ORS 756.040-756.068, 756.500-756.558, 756.990, and 758.505-758.575. The Oregon
19	rules expected to be involved in this case include: OAR 860-001, and 860-029.
20	4. The federal statute expected to be involved in this case is PURPA, 16
21	United States Code ("USC") 824a-3. The federal rules expected to be involved in this
22	case include: 18 Code of Federal Regulations ("CFR") 292.101-292.602.
23	V. JURISDICTION
24	5. FERC has adopted regulations and policies governing utility purchases
25	from QFs under PURPA. 18 CFR 292.101-292.602. State regulatory agencies are
26	required to implement FERC's regulations. See 16 USC 824a-3(f); FERC v. Mississippi,

PAGE 5 -- COMPLAINT

456 U.S. 742, 751, 102 S. Ct. 2126 (1982). FERC's rules provide each QF with the right
to unilaterally create a legally enforceable obligation to sell its energy and capacity at
projected avoided cost rates in effect on the date that the QF obligates itself to sell energy
and capacity. 18 CFR 292.304(d)(2)(ii); <u>FLS Energy Inc.</u>, 157 FERC ¶ 61,211 at PP 2325 (2016).

6 6. Oregon law also includes a requirement that a QF has the right to legally 7 obligate itself to sell its net output prior to the delivery of its net output. Specifically, 8 ORS 758.525(2)(b) provides: "At the option of the qualifying facility, exercised before 9 beginning delivery of the energy or energy and capacity, such prices may be based on 10 [t]he projected avoided costs calculated at the time the legal obligation to purchase the 11 energy or energy and capacity is incurred." Thus, the "obligation to purchase power is 12 imposed by law on a utility; it is not voluntarily assumed." Snow Mountain Pine Co. v. 13 Maudlin, 84 Or. App. 590, 598, 734 P.2d 1366 (1987).

14 7. The Commission is the Oregon state agency that implements the state and 15 federal PURPA statutes. ORS 758.505(3); OAR 860-029-0001; Snow Mountain, 84 Or. 16 App. at 593. Public utilities are defined in ORS 758.505(7), and include PGE. Oregon 17 law provides that the "terms and conditions for the purchase of energy or energy and 18 capacity from a qualifying facility shall . . . [b]e established by rule by the commission if 19 the purchase is by a public utility." ORS 758.535(2)(a). The Commission has the power 20 and jurisdiction to hear complaints by QFs against public utilities, including PGE. ORS 21 756.040, 756.500-756.558, and 758.505-758.555; OAR 860-001-0010(3), and 860-029-22 0030.

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PAGE 6 -- COMPLAINT

1		VI. FACTUAL BACKGROUND
2	8.	The Saddle Butte Solar Project will be a 10 megawatt ("MW") nameplate
3	solar genera	ation facility located in Morrow County, Oregon.
4	9.	Saddle Butte Solar will interconnect with PacifiCorp.
5	10.	Saddle Butte Solar has made arrangements for the transmission of power
6	to PGE's sy	stem and Saddle Butte Solar will enter into a point-to-point transmission
7	services agr	reement with Bonneville Power Administration to wheel its entire net output
8	to PGE's sy	rstem.
9	11.	On March 2, 2017, Saddle Butte Solar initially contacted PGE and
10	requested a	standard PPA.
11	12.	Saddle Butte Solar understood that PGE would make its annual avoided
12	cost rate up	date filing on May 1, 2017 allowing limited price updates ("May 1 Update"),
13	and expecte	d PGE's avoided cost rates to change accordingly in the end of June 2017.
14	13.	Saddle Butte Solar was aware that PGE's integrated resource plan was
15	scheduled for	or acknowledgment in June 2017, and expected that PGE's avoided cost rates
16	could also b	be changed about two months later, in August 2017.
17	14.	Saddle Butte Solar is now aware that PGE's integrated resource plan is
18	scheduled for	or acknowledgement at the end of August 2017, and now expects PGE's
19	avoided cos	t rates to be revised about two months later, or the end of October 2017.
20	15.	On March 14, 2017, PGE responded to Saddle Butte Solar's initial contact
21	with a form	letter outlining PGE's process for initiating and obtaining a Standard PPA
22	("PGE's Sc	hedule 201 Initial Information Form").

PAGE 7 -- COMPLAINT

1	16.	On April 14, 2017, Saddle Butte Solar provided the information required	
2	by PGE's S	Schedule 201 Initial Information Form to obtain a draft Standard PPA.	
3	17.	On April 18, 2017, PGE acknowledged receipt of Saddle Butte Solar's	
4	application	n, noting that it was received on April 17, 2017 and that PGE would either	
5	provide a c	draft PPA or request additional information by May 15, 2017.	
6	18.	Before May 1, 2017, PGE decided to prepare an application that would	
7	update and	lower its Schedule 201 prices and request Commission approval at the May	
8	16, 2017 p	ublic meeting ("May 1 Update").	
9	19.	On May 1, 2017, PGE filed its May 1 Update.	
10	20.	PGE chose not to inform QFs that it was planning to file its May 1 Update	
11	and to seek	c an early effective date and approval at the May 16, 2017 public meeting.	
12	21.	On or after May 1, 2017, PGE decided to prepare its Solar Limitation	
13	Filing. Th	is filing would propose to lower the eligibility cap for a QF to obtain standard	
14	avoided co	ost prices from PGE from 10 MW to 3 MW, and declare that a solar QF project	
15	with a capa	acity above 100 kilowatts ("kW") is not eligible for a standard contract or	
16	standard prices from PGE if any owner of the solar QF project has requested or obtained		
17	standard p	rices from PGE for more than 10 MW of solar QF capacity; or in the	
18	alternative	, lower to 2 MW the eligibility cap for a solar QF project to obtain prices from	
19	PGE effect	tive June 30, 2017.	
20	22.	PGE chose not to inform Saddle Butte Solar that PGE intended to make	
21	the Solar L	imitation Filing.	

PAGE 8 -- COMPLAINT

PGE did not inform Saddle Butte Solar that PGE intended to make the
 Solar Limitation Filing in order to ensure that Saddle Butte Solar would not execute a
 PPA before June 30, 2017.

4 24. Saddle Butte Solar was materially prejudiced by PGE's failure to give
5 notice to QFs because, among other things, it prevented Saddle Butte Solar from having
6 the opportunity to expedite its request and Saddle Butte Solar would have processed its
7 PPA request more quickly if it had been aware that PGE intended to make the Solar
8 Limitation Filing.

9 25. On May 5, 2017, PGE did not provide Saddle Butte Solar with a draft 10 standard PPA, and instead responded with a letter requesting clarifying information 11 regarding the termination date and interconnection / transmission details.

PGE should have provided a draft PPA on May 5 because Saddle Butte
Solar had submitted enough information to receive a PPA, and PGE's clarifications were
not necessary to proceed under PGE's Schedule 201 process.

15 27. On June 28, 2017, Saddle Butte Solar provided the clarifying information
16 requested by PGE.

17 28. On June 29, 2017, PGE responded that it received the additional
18 information and that PGE would send either a draft standard PPA or a request for any
19 additional or clarifying information by July 20, 2017.

20 29. On July 20, 2017, PGE sent a letter once again requesting additional or 21 clarifying information. The additional or clarifying information requested on July 20, 22 2017 was in relation to a one-line diagram of the project and supporting information to 23 validate the maximum output from the project.

PAGE 9 -- COMPLAINT

30. PGE's July 20 letter also notified Saddle Butte Solar about PGE's Solar
 Limitation Filing, stating that it could impact Saddle Butte Solar's eligibility for standard
 prices or a Standard PPA.

4 31 PGE's July 20 letter noted that PGE had requested interim relief and 5 expedited consideration, and that PGE did not expect to provide Saddle Butte Solar with 6 an executable Standard PPA before the Commission ruled on its request for interim relief. 7 32. On July 24, 2017, Saddle Butte Solar responded by letter to PGE 8 requesting that PGE provide a draft Standard PPA immediately. Saddle Butte Solar 9 pointed out that there was no need for additional information because Saddle Butte Solar 10 had provided PGE with all of the general project information required to proceed with the 11 Standard PPA. 12 33. On July 24, 2017, Saddle Butte Solar also requested to speak with PGE 13 "for a few minutes about the Schedule 201 process" because it had expected to receive a 14 draft Standard PPA rather than a clarification letter.

34. On July 25, 2017, PGE replied requesting a list of questions, topics, or
issues that Saddle Butte Solar would like to discuss so that PGE could prepare for the
telephone conversation.

35. On July 25, 2017, PGE also responded to Saddle Butte Solar's July 24
letter stating that they would either send a draft Standard PPA or another request for
additional or clarifying information by August 14, 2017.

21 36. On July 26, 2017, Saddle Butte Solar replied to PGE's email indicating
22 that Saddle Butte Solar would like to discuss: 1) the documentation required by Schedule

PAGE 10 -- COMPLAINT

1 201 to prepare a draft Standard PPA; and 2) the different steps and timelines in the 2 Schedule 201 process related to information gathering, draft PPAs, and executable PPAs. 3 37. On July 28, 2017, PGE and Saddle Butte Solar spoke by telephone to 4 discuss PGE's requests for additional information. Saddle Butte Solar explained that 5 PGE had not required this information in a previously-executed PPA and requested PGE 6 send a draft PPA. PGE refused to move forward with the PPA negotiations absent the 7 additional documentation verifying that the maximum generation value was attainable. 8 Saddle Butte Solar instead agreed to reduce its maximum generation value. 9 38. Later that same day, on July 28, 2017, Saddle Butte Solar sent PGE the 10 updated information regarding the maximum generation value, and noted that the PVSyst 11 report that PGE had requested had already been provided with Saddle Butte Solar's first 12 Initial Information Request in April. 39. 13 On July 28, 2017, PGE acknowledged receipt with a form email stating 14 that PGE would either send a draft Standard PPA or another request for additional or 15 clarifying information by August 18, 2017. 16 40. On July 31, 2017, PGE sent a draft Standard PPA to Saddle Butte Solar. 17 41. On August 3, 2017, Saddle Butte Solar sent a letter to PGE indicating that 18 Saddle Butte Solar did not propose any changes to the draft sent by PGE, and requested 19 an executable Standard PPA. 20 42. Saddle Butte Solar's August 3 letter stated that Saddle Butte Solar was 21 ready, willing, and able to sign a PPA with PGE and unequivocally committed itself to 22 sell the net output to PGE at the Schedule 201 avoided cost rates and standard PPA terms 23 and conditions currently in effect, as reflected by the draft Standard PPA.

PAGE 11 -- COMPLAINT

43. Saddle Butte Solar's August 3 letter also stated that its request was urgent,
 and that time was of the essence because PGE's Solar Limitation Filing could preclude
 Saddle Butte Solar from being eligible from standard contract terms and/or standard
 prices.

5 44. Saddle Butte Solar would have committed and been ready, willing and
6 able to execute a PPA earlier, if PGE had not raised unreasonable objections and requests
7 for additional information.

8 45 On August 4, 2017, PGE announced in its 2016 IRP that PGE will ask the 9 Commission to change its current avoided cost rate process (which re-sets avoided cost 10 rates only after approval of a new rate filing that is made 30 days after the IRP 11 acknowledgment) to instead ensure that the avoided cost prices paid to QFs that enter into 12 contracts or achieve a legally enforceable obligation after the Commission's 13 acknowledgement will no longer to be eligible for the current rates. 14 46. On August 4, 2017, PGE confirmed that the usual Commission process is 15 PGE must file to update avoided cost prices within 30 days of the Commission's IRP 16 acknowledgement, and once PGE files, there is a 90-day review period before prices become effective. 17 18 47. On August 4, 2017, PGE explained that only QFs that enter into a contract

or achieve a legally enforceable obligation prior to acknowledgement of the IRP will beeligible for current avoided cost rates.

21 48. PGE chose not to inform Saddle Butte Solar that PGE intended to make
22 the August Early Rate Effective Date Request.

PAGE 12 -- COMPLAINT

49. PGE did not inform Saddle Butte Solar that PGE intended to make the
 August Early Rate Effective Date Request in order to ensure that Saddle Butte Solar
 would not timely execute a PPA.

Saddle Butte Solar was materially prejudiced by PGE's failure to give
notice because, among other things, it prevented Saddle Butte Solar from having the
opportunity to expedite its request. Saddle Butte Solar would have processed its PPA
request more quickly if it had been aware that PGE intended to make the August Early
Rate Effective Date Request.

9 51. PGE's intent and purpose for requesting that QFs that have not entered 10 into a contract or achieve a legally enforceable obligation prior to acknowledgment of the 11 IRP not being eligible for current avoided cost rates was to prevent Saddle Butte Solar 12 and other QFs from being able to complete and execute a PPA at current rates.

13 52. On August 7, 2017, Saddle Butte Solar executed the standard draft PPA. 53. 14 On August 7, 2017, Saddle Butte Solar informed PGE that it was again 15 committing itself to sell power to PGE under the currently effective Schedule 201 rates, 16 and the terms and conditions of the partially executed PPA, and obligating itself to 17 provide power or be subject to penalty for failing to deliver energy on the scheduled 18 commercial on-line date. 19 LEGAL CLAIMS VII.

Complainant's First Claim for Relief

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Saddle Butte Solar is entitled to PGE's standard contract with currently effective Schedule 201 rates because Saddle Butte Solar legally obligated itself to sell the net output prior to the filing of this Complaint

- 23 24
- 25 54. Saddle Butte Solar re-alleges all the preceding paragraphs.

1	55. PGE has an obligation to purchase a QF's net output that is directly or
2	indirectly made available to PGE. 18 CFR 292.303(a)&(d), 292.304(d); ORS
3	758.525(2)(b), 758.535(2)(a)&3(b); OAR 860-029-0030(1).
4	56. PGE has an obligation to purchase the net output of a QF pursuant to
5	either a contract or a legally enforceable obligation. 18 CFR 292.304(d); Order No. 69,
6	FERC Stats. & Regs. ¶ 30,128, 45 Fed. Reg. 12,214 at 12,219-20, 12,224 (1980). A
7	legally enforceable obligation is broader than a simple contract between an electric utility
8	and a QF, and may exist without a written, executed contract. <u>FLS Energy</u> , 157 FERC ¶
9	61,211 at PP 24, 26; Grouse Creek, LLC, 142 FERC ¶ 61,187 at P 38 (2013).
10	57. The establishment of a legally enforceable obligation turns on the QF's
11	commitment to sell its net output to the electric utility. <u>FLS Energy</u> , 157 FERC ¶ 61,211
12	at P 24; JD Wind 1, LLC, 129 FERC ¶ 61,148, at P 25 (2009). A QF can enter into a
13	legally enforceable obligation by committing itself to sell power to an electric utility.
14	<u>FLS Energy</u> , 157 FERC ¶ 61,211 at P 25; <u>Cedar Creek Wind</u> , LLC, 137 FERC ¶ 61,006
15	at PP 36, 39 (2011); <u>Snow Mountain</u> , 734 P.2d at 1371.
16	58. A QF can require a utility to purchase its net output, even if the utility has
17	refused to enter into a contract. Id. at 1370-71; FLS Energy, 157 FERC ¶ 61,211 at P 24;
18	Murphy Flat Power, 141 FERC ¶ 61,145 at P 24 (2012); Grouse Creek, 142 FERC ¶
19	61,187 at P 38. A utility cannot refuse to sign a contract "so that a later and lower
20	avoided cost is applicable." <u>FLS Energy</u> , 157 FERC ¶ 61,211 at P 25; <u>Cedar Creek</u>
21	Wind, 137 FERC ¶ 61,006 at P 36. Similarly, a QF cannot be required to tender an
22	executed interconnection agreement to form a legally enforceable obligation because that

PAGE 14 -- COMPLAINT

requirement would allow "the utility to control whether and when a legally enforceable
 obligation exists." <u>FLS Energy</u>, 157 FERC ¶ 61,211 at PP 23, 26.

3 59. The Commission has confirmed the process for obtaining a PPA includes: 4 "(1) a QF initiates the process by submitting certain information, the utilities then have 5 15 days to provide a draft standard contract; (2) the QF may agree to the terms of the 6 draft contract and ask the utility to provide a final executable contract, or suggest 7 changes; (3) the utility provides iterations of the draft standard contract no later than 15 8 days after each round of comments by the negotiating QF; and (4) when the QF indicates 9 that it agrees to all the terms in the draft contract, the utility has 15 days to forward a final 10 executable contract to the QF." Re Investigation Into QF Contracting and Pricing, 11 Docket No. UM 1610, Order No. 16-174 at 24 (May 13, 2016). Thus, when the QF 12 informs PGE that it has agreed to all terms and conditions in the draft PPA, then PGE is 13 required to provide an executable PPA to the QF. 14 60. The Commission has determined that a legally enforceable obligation will 15 be established "once a QF signs the final draft of an executable contract provided by a 16 utility to commit itself to sell power to the utility." Re Investigation Into QF Contracting 17 and Pricing, Docket No. UM 1610, Order No. 16-174 at 3, 27-28 (May 13, 2016). 18 However, a legally enforceable obligation "may be established earlier if a QF 19 demonstrates delay or obstruction of progress towards a final draft of an executable 20 contract, such as a failure by a utility to provide a QF with required information or 21 documents on a timely basis." Id. 22 61. The Commission has determined that a PPA can be executed and a legally

enforceable obligation can be created in less than two months under normal

PAGE 15 -- COMPLAINT

circumstances. <u>Re Investigation Into QF Contracting and Pricing</u>, Docket No. UM 1610,
 Order No. 16-174 at 24, 27-28 (May 13, 2016).

3 62. FERC has found that legally enforceable obligations have been created in 4 about one month. Rainbow Ranch Wind, LLC, 139 FERC ¶ 61,077 at PP 2-5, 24 (2012); 5 Grouse Creek Wind Park, LLC, 142 FERC ¶ 61,187, at PP 37-43 (2013). 6 63. Saddle Butte Solar has repeatedly committed itself to sell power to PGE 7 under the currently effective Schedule 201 rates, and the terms and conditions of the draft 8 PPA, including to provide power or be subject to penalty for failing to deliver on the 9 scheduled commercial on-line date. These commitments include but are not limited to 10 Saddle Butte Solar's request for an executable PPA on August 3, 2017, and Saddle Butte 11 Solar's execution of the draft PPA on August 7, 2017. 12 64. Saddle Butte Solar has continued to commit, and is still committing, itself 13 to sell the net output of the Saddle Butte Solar Project to PGE at the Schedule 201 rates, 14 terms, and conditions in the partially executed final PPA. 15 65. PGE is required to purchase the net output of the Saddle Butte Solar 16 Project at the Schedule 201 rates, terms, and conditions in the partially executed final 17 PPA, despite PGE's refusal to execute the partially executed final PPA. 18 66. Saddle Butte Solar's execution of the draft PPA, continuing commitment 19 to sell the net output of the Saddle Butte Solar Project, and efforts to obtain PGE's 20 execution of the partially executed final PPA establish a legally enforceable obligation at 21 the currently effective Schedule 201 rates, and all the terms and conditions in the partially

executed final PPA.

PAGE 16 -- COMPLAINT

1	Complainant's Second Claim for Relief		
2 3 4 5	Saddle Butte Solar is entitled to PGE's standard contract with currently effective Schedule 201 rates because Saddle Butte Solar legally obligated itself to sell the net output prior to the filing of this Complaint, and PGE violated the OPUC's and FERC's policies and rules, and Schedule 201		
6 7	67. Saddle Butte Solar re-alleges all the preceding paragraphs.		
8	68. The Commission has established rules, policies, standard contracts, and		
9	rate schedules to facilitate and direct the process by which a QF and an Oregon electric		
10	utility enter into a contract. <u>Re Investigation Relating to Electric Utility Purchases from</u>		
11	QFs, Docket No. UM 1129, Order No. 05-584 at 6-12, 16 (May 13, 2005). The purpose		
12	of the Commission approving standard contacts and schedules for each utility is to pre-		
13	establish "rates, terms and conditions that an eligible QF can elect without any		
14	negotiation with the purchasing utility" and to "eliminate negotiations" Id. at 12, 1		
15	69. PGE's PURPA purchase obligation applies to any QF delivering power to		
16	PGE, whether the power is delivered directly or indirectly to PGE. 18 CFR		
17	292.303(a)&(d). As FERC has stated, these "regulations require the electric utility's		
18	[PURPA] purchase obligation to be applied to both off-system as well as on-system QFs		
19	on a comparable basis." PáTu Wind Farm, LLC v. Portland General Electric Co., 151		
20	FERC ¶ 61,223 at P 46 (2015).		
21	70. "A utility is obligated under PURPA to purchase the output of a QF as		
22	long as the QF can deliver its power to the utility." Kootenai Elec. Coop., Inc., 143		

23 FERC ¶ 61,232 at P 33 (2013) reh'g denied 145 FERC 61,229 at P 15 (2013). The QF

24 has the discretion to choose to sell to a more distant utility that it is not interconnected

25 with "as long as the QF can deliver its power to the utility." <u>Id.</u> A QF can sell its net

26 output at the Commission-approved avoided cost rates by delivering such output at the

PAGE 17 -- COMPLAINT

point where its transmission provider and its purchasing utility's transmission systems
 interconnect. <u>Id.</u>

3	71. PGE's failure to abide by the terms of PURPA, the Commission's rules	
4	and policies, FERC's rules and policies, and/or Schedule 201 can result in the creation of	•
5	a legally enforceable obligation. <u>Re Investigation Into QF Contracting and Pricing</u> ,	
6	Docket No. UM 1610, Order No. 16-174 at 3, 27-28 (May 13, 2016); Snow Mountain,	
7	734 P.2d at 1371; International Paper v. PacifiCorp, Docket No. UM 1449, Order No. 09-	-
8	439 at 6 (Nov 4, 2009).	
9	72. The Commission's polices include that, "when the QF indicates that it	
10	agrees to all the terms in the draft contract, the utility has 15 days to forward a final	
11	executable contract to the QF." <u>Re Investigation Into QF Contracting and Pricing</u> ,	
12	Docket No. UM 1610, Order No. 16-174 at 24 (May 13, 2016).	
13	73. PGE's Schedule 201 includes timelines and requirements that a utility	
14	should follow when entering into a PPA with a QF 10 MWs and under. PGE's Schedule	
15	201 allows a QF with a facility that interconnects with an electric system other than	
16	PGE's electric system to enter into a PPA with PGE after making the arrangements	
17	necessary for transmission of power to PGE's electric system.	
18	74. PGE's Schedule 201 does not require the QF to make arrangements for the	e
19	transmission of power to any specific location on PGE's system.	
20	75. To the extent that PGE's Schedule 201 allows PGE to control the form or	
21	location of delivery for the transmission of power to PGE's system, then Schedule 201 is	
22	inconsistent with FERC's rules and policies.	

PAGE 18 -- COMPLAINT

1 76. Schedule 201 also provides that: "When both parties are in full agreement 2 as to all terms and conditions of the draft Standard PPA, the Company will prepare and 3 forward to the Seller a final executable version of the agreement within 15 business 4 days."

5 77. The Commission's rules and policies prevent a utility from delaying or
6 obstructing "progress towards a final draft of executable contract". <u>Re Investigation Into</u>
7 <u>QF Contracting and Pricing</u>, Docket No. UM 1610, Order No. 16-174 at 27-28 (May 13,
8 2016).

9 78. PGE must continue to comply with the Commission's rules and policies,
10 even though PGE has requested interim relief in the Solar Limitation Filing.

11 79. By no later than August 7, 2017, Saddle Butte Solar had agreed to all
12 terms and conditions, and Saddle Butte Solar requested executed a final executable
13 version of the PPA.

14 80. PGE did not provide and has not provided a final executable version of the15 PPA.

16 81. PGE violated the Commission's rules and policies, FERC's rules and
17 policies, and Schedule 201 when it refused to notify prior to filing or serve Saddle Butte
18 Solar and other QFs with its May 1 Update, Solar Limitation Filing and August Early
19 Rate Effective Date Request with the intention to prevent Saddle Butte Solar from timely
20 executing a PPA.

21 82. PGE violated the Commission's rules and policies, FERC's rules and
22 policies, and Schedule 201 when it stated that no binding PPA will exist between PGE

PAGE 19 -- COMPLAINT

and Saddle Butte Solar unless and until PGE has provided Saddle Butte Solar with an
 executable PPA.

3	83.	PGE violated the Commission's rules and policies, FERC's rules and
4	policies, and	Schedule 201 when it stated that no binding PPA will exist between PGE
5	and Saddle I	Butte Solar unless Saddle Butte Solar and PGE both have executed the PPA.
6	84.	PGE violated the Commission's rules and policies, FERC's rules and
7	policies, and	Schedule 201 when it stated that it did not expect to provide and would not
8	provide an e	xecutable PPA before the Commission has ruled on PGE's motion for
9	interim relie	f in the Solar Limitation Filing.
10	85.	PGE violated the Commission's rules and policies, FERC's rules and
11	policies, and	Schedule 201 when it delayed and obstructed progress toward executing a
12	PPA.	
13	86.	PGE violated the Commission's rules and policies, FERC's rules and
14	policies, and	Schedule 201 when it raised concerns regarding the maximum annual net
15	output.	
16	87.	PGE violated the Commission's rules and policies, FERC's rules and
17	policies, and	Schedule 201 when it refused to provide an executable PPA or to execute
18	the draft PPA.	
19	88.	PGE's violations of the Commission's rules and policies, FERC's rules
20	and policies,	, and Schedule 201, and Saddle Butte Solar's execution of the final PPA,
21	continuing c	commitment to sell the net output of the Saddle Butte Solar Project, and
22	efforts to ob	tain PGE's signature resulted in a legally enforceable obligation at the

PAGE 20 -- COMPLAINT

1	currently effective Schedule 201 rates, and all the terms and conditions in the partially	
2	execut	ed final PPA.
3		VIII. PRAYER FOR RELIEF
4		WHEREFORE, Saddle Butte Solar respectfully requests the Commission issue an
5	order:	
6	1.	Finding PGE in violation of: 1) the mandatory purchase obligation of the Oregon
7		PURPA; 2) the mandatory purchase obligation of the federal PURPA; 3) FERC's
8		PURPA regulations, policies, and orders; 4) the Commission's PURPA
9		regulations, policies, and orders; and 5) PGE's Schedule 201;
10	2.	Requiring PGE to purchase the net output of the Saddle Butte Solar Project at the
11		currently effective Schedule 201 rates, and all the terms and conditions in the
12		partially executed final PPA;
13	3.	Requiring PGE to enter into a PURPA PPA with Saddle Butte Solar at the
14		currently effective Schedule 201 rates, and all the terms and conditions in the
15		partially executed final PPA;
16	4.	Barring PGE from seeking to impose any costs on Saddle Butte regarding
17		congestion;
18	5.	Barring PGE from raising any concerns regarding the deliverability, wheeling or
19		transmission of the Saddle Butte Project's net output;
20	6.	Barring PGE from seeking to curtail the net output of the Saddle Butte Project's
21		net output;

PAGE 21 -- COMPLAINT

- 1 7. Instituting penalties pursuant to ORS 756.990 against PGE and paid by PGE's
- 2 shareholders for each violation of ORS 758.525(2), 758.535(2)(b), 18 CFR
- 3 292.303(a), 292.304(d), and Commission Order Nos. 05-584 and 16-174.
- 4 8. Granting any other such relief as the Commission deems necessary.

Dated this 7th day of August, 2017.

Respectfully submitted,

Danger

Irion A. Sanger Sanger Law, PC 1117 SE 53rd Avenue Portland, OR 97215 Telephone: 503-756-7533 Fax: 503-334-2235 irion@sanger-law.com

Attorneys for Saddle Butte Solar

CERTIFICATE OF FILING

I certify that on August 7, 2017, I filed the foregoing Complaint on behalf of Saddle Butte Solar with the Oregon Public Utility Commission by electronic communication as consistent with OAR 860-001-0170.

Lion angon

Irion Sanger Sanger Law, PC 1117 SE 53rd Avenue Portland, OR 97215 Telephone: 503-756-7533 Fax: 503-334-2235 irion@sanger-law.com

Attachment A

Saddle Butte Solar

Power Purchase Agreement

STANDARD RENEWABLE OFF-SYSTEM VARIABLE POWER PURCHASE

AGREEMENT

THIS AGREEMENT is between <u>Saddle Butte Solar LLC</u> ("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 <u>Solar</u> facility for the generation of electric power located in <u>Morrow County</u>. Lat 45.527, Long -119.987 County, <u>Oregon</u> with a Nameplate Capacity Rating of <u>10,000</u> 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 A 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 8,764 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 collowing requirement) After PGE has received notice of completion of Start-Up Testing, PCE has received a certificate addressed to PGE from an LPE stating that the Pacility has operated for testing purposes under this Agreement and was continuously mechanically available for operation for a minimum of 120 hours. The Facility post 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 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 sets, 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 offpeak 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 whole the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.

Effective Date" has the meaning set forth in Section 2.1.

"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 <u>Columbia Basin Electric Cooperative</u> 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 "LRE" 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 timeweighted 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: <u>https://www.theice.com/products/OTC/Physical-Energy/Electricity</u>. 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 proceding 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 timeweighted 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 reaction other than Force Majeure).

1.42. "Transmission Ourtalment 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 anchary services and control area services) required for the firm transmission and dervery 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 11/30/19 Seller shall begin initial deliveries of Net Output; and

2.2.2. By <u>12/31/19</u> 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 <u>the date 15 years from the effective</u> <u>date</u>, 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 LLC 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 kW.

3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is 24,074,000 kilowatt-hours ("kWh"), which amount RGE 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>29,377,000</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'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 EXVIRONMENTAL 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 Aet Output as described in Section 3.1.11 above, through any means including, but not imited 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 protectionally 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 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. 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 Repewable 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 \$605(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 skall not port under such program that such Seller-Retained Environmental Attributes being 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 wit

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 opcision to inspect or not to inspect the Facility, or by any action or inaction taken interce arising from the operation and maintenance by Seller of the Facility.

52. 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 Right, 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, Setter 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 wing after the due date thereof shall bear interest at the Prime Rate plus two percent (%) 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.

delivery of any Net Output to PGE or within 10 days of notice.

⁹⁸8.1.3. 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 his 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 nondefaulting 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 that 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 the 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.

92. 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 o 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 PCE, its directors, officers, employees, agents or representatives.

10.2. PGE agrees to defend, indemnify and hold handless 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 an 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, INDIRECTY OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE,

SECTION 11: INSURANCE

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 PGB 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 POE'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 term 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 boon ten (10) days advance written notice by certified or registered mail to Seller other 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, tree, 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 the (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 some 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 of control 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:

Attn: General Counsel Saddle Butte Solar LLC 1710 29th St, Suite 1068 Boulder, CO 80301

with a copy to: Attn: Project Manager Saddle Butte Solar LLC 1710 29th St, Suite 1068 Boulder, CO 80301

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:
- Star
Saddle Butte Solar LLC
(Name Seller)
By:
Name: Stenhen Juni
Title:
Date: 8-4-17

EXHIBIT A DESCRIPTION OF SELLER'S FACILITY

Contract Information	
a. Seiler Legal Name	Saddle Butte Solar LLC
b. Type of facility (solar, or wind for example)	Solar
c. County and GPS Coordinate to 3 decimals	Morrow County, Lat 45.527, Long -119.987
d. State	Oregon
e. Name Plate Rating in kW	10,000
f. Section 1.11 Electric system to interconnect to	Columbia Basin Electric Cooperative
g. Section 2.2.1 date to be begin delivery	
	11/30/2019
h. Section 2.2.3 date of Commercial Operation Date	12/31/2019
i. Section 2.3 Termination Date	The date that is 15 years from the Effective Date.
j. Corporation type	LIC
k. State of organization	Delaware
I. Net Dependable Capacity in kW	10,000 kW
m. Estimated average annual Net Output	24.074.000
n. Maximum of kWh	36.111.000
o. Notice address line 1	
p. Notice address line 2	Attn: General Counsel
	Saddle Butte Solar LLC
q. Notice address line 3	1710 29th St, Suite 1068
r. Notice address ilne 4	Boulder, CO 80301
s. Copy to address line 1	Attn: Project Manager
t. Copy to address line 2	Saddle Butte Solar LLC
u. Copy to address line 3	1710 29th St, Suite 1068
v. Copy to address line 4	
	Boulder, CO 80301
w. On a separate sheet include a detailed facility description	Please see attached Generation Summary Report
2. Status of Seller's incorporation	Incorporated
. Seller's financial statements:	Seller is a wholly owned subsidiary of juwi Inc., and does not have standalone fina
A - evener e minarileiti Suzi uzmitettijija;	statements
a. Income statement	N/A A N L
b. Balance sheet	
P. Palalice allocit	N/A
	Sellin does not have a DUNS number or report. The owner of Seller, juwi Inc., has
	OUNS number of 882341338. Juwi Inc. is privately owned and is not rated by S&P
I. D & B report on seller, of the project sponsor if the seller is not in D & B	Moody's. There are currently no pending claims, actions, disputes or other
ALL	proceedings pending or threatened against juwl Inc. or its subsidiaries, juwi Inc. ha
	ever filed for bankruptcy.
List of all entities with an ownership interest in the facility	
	Saddle Butte Solar LLC is 100% owned by juwi Inc.
	N/A
. Proof of site control (lease, title to land, property tax bill, or other)	Please see attached Letter of Intent which provides site control for the property.
FERC Form 556 and dockett number as proof of submittal and acceptance by FERC	Docket # QF17-729-000. Form 556 is Attached.
Map adjoining QF sites owned by the same seller at this time , or within the past 12 months	There are no adjoining QF sites owend by Seller at this time. The nearest site is over
	juwi Inc. Is a full service renewable energy development and turn-key Engineering,
	Procurement, and Construction (EPC) firm, which has constructed over 400 MW or
.0. Staffing plan for getting the project online	
	utiliy scale solar projects in 14 states, juwi currently has all the staff necessary to
	execute and construct the project on time in a high quality manner.
	Seller filed an interconnection request with Columbia Basin Electric Cooperative o
	2/3/17. CBEC is currently studying the proposed project, and Seller has obtained a
	Interconnection Queue number of 1. Seller is in the final stages of filing a Transmi
1. Status of interconnection and transmission agreements	Service Request with BPA to deliver the power from the facility to PGE. Seller has
A	
	passed the credit screening of the BPA TSR process expects to obtain a TSR queue
	number in the next few weeks.
2. Does Seller have FERC Market Based Rate Authority? If yes provide docket #.	No
eneration information	
Motive force plan	Solar PV
Expected energy delivery start date	11/30/2019
	99,50%
Expected Availability of generation	
Expected Availability of generation PVSyst (or equivalent) simulation results detail, including but not limited to:	
Expected Availability of generation PVSyst (or equivalent) simulation results detail, including but not limited to: a. Annual MVin (AC) for the first calendar year of commercial operation and an annual	24074 MWh: 0.5%/vr degradation
Expected Availability of generation PVSyst (or equivalent) simulation results detail, including but not limited to: a. Annual MVin (AC) for the first calendar year of commercial operation and an annual b. Availage 24-fit profile of generation MWh (AC) for each month during the first calend	24074 MWh; 0.5%/yr degradation Please see attached Generation Summary Report
Expected Availability of generation PVSyst (or equivalent) simulation results detail, including but not limited to: a. Annual MWin (AC) for the first calendar year of commercial operation and an annual b. Avanage 24-lix profile of generation MWh (AC) for each month during the first calend	24074 MWh; 0.5%/yr degradation Please see attached Generation Summary Report
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Expected Availability of generation PVSyst (or equivalent simulation results detail, including but not limited to: a. Annual MVin (AC) for the first calendar year of commercial operation and an annual b. Average 24-by profile of generation MWh (AC) for each month during the first calend c. Maximum 24-bit profile of generation MWh (AC) for each month during the first calend	24074 MWh; 0.5%/yr degradation Please see attached Generation Summary Report Please see attached Generation Summary Report
Expected Availability of generation PVSyst (or equivalent) simulation results detail, including but not limited to: a. Annual MVPLAC) for the first calendar year of commercial operation and an annual b. Average 24-ht profile of generation MWh (AC) for each month during the first calend o. Maximum 24-ht profile of generation MWh (AC) for each month during the first calend o. Maximum 24-ht profile of generation MWh (AC) for each month during the first calend o. Maximum annual output (monthly MWh detail) e. Loss Diagram	24074 MWh; 0.5%/yr degradation Please see attached Generation Summary Report Please see attached Generation Summary Report Please see attached Generation Summary Report
Expected Availability of generation PVSyst (or equivalent) simulation results detail, including but not limited to: a. Annual MVRh (AC) for the first calendar year of commercial operation and an annual b. Avarage 24-ht profile of generation MWh (AC) for each month during the first calend c. Maximum 24-ht profile of generation MWh (AC) for each month during the first calend c. Maximum 24-ht profile of generation MWh (AC) for each month during the first calend c. Maximum annual output (monthly MWh detail) e. Loss Diagram b. Calendary (Maximum annual output (monthly MWh detail) action of facility	24074 MWh; 0.5%/yr degradation Please see attached Generation Summary Report Please see attached Generation Summary Report Please see attached Generation Summary Report
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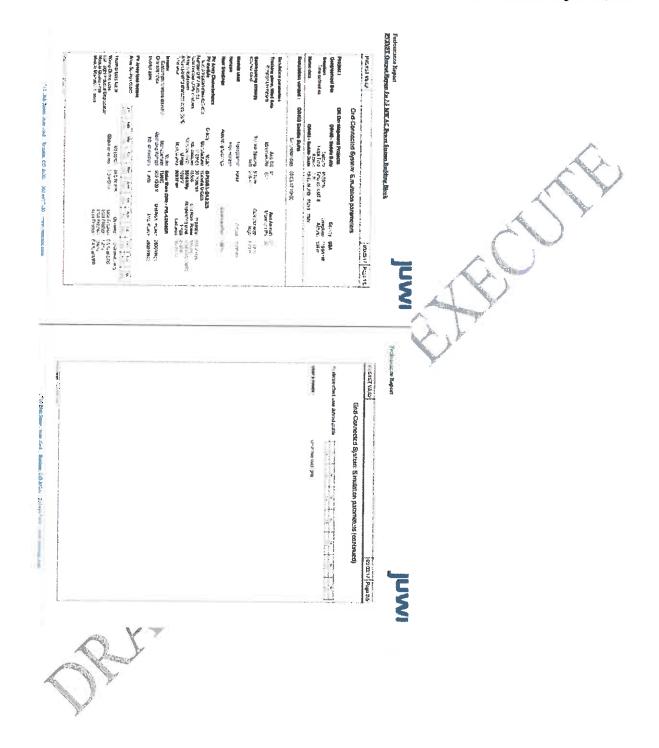
olar Facility Characteristics	Note this information is considered representative design information which is to be updated at
. Generation	the time of project construction and is subject to design finalization
a. PVSyst (or equivalent) simulation results detail, including but not limited to:	· · · · · · · · · · · · · · · · · · ·
Annual MWh (AC) for the first calendar year of commercial operation	24074 MWh
il. Annual degradation factor	0.5%/year
iii. Average 24-hr profile of generation MWh (AC) for each month during the first calenda	
Iv. Expected Solar Capacity Factor	27.5% In Contract Year 1
v. Maximum annual output (monthly MWh detail)	36111 MWh
iv. Loss Diagram	Please see attached Generation Summary Report
Description of Modules:	
a. Module type	72-cell crystalline silicon
b. # of modules	42,000
c. Max power voltage d. Max power current	37 V 8.8A
e. Max system voltage	1500 V DC
f. Total DC system size	14 MW DC
. Description of Racking	
a. Racking	
 Type: (fixed tilt, single-axis tracking, or dual-axis tracking, etc.) 	single-axis tracking
ii. Tilt angle (if fixed-tilt)	0 degrees
iii. Azimuth (default = south-facing)	180 degrees (north-south oriented)
Description of Inverters:	
a. Number of Inverters	4
b. Model	TBD (TMEIC PVH-L2500GR or equivalent)
c. Maximum Power (kW) d. Operating Voltage (VAC)	2500
e. Max. Output Current (A)	600
f. Rated DC Voltage	1500 V DC
g. Rated DC current	3150 A
h. Maximum Output (kW)	2,500
g. Facility AC Capacity Rating	10 MW AC
h. Inverter loading ratio	14
i. Facility AC rating	10 MW AC
Description of transformers	
a. # of transformers	4-medium voltage transformers; 1 main step-up transformer
b. Model	TBD (ABB, Cooper, Virginia Transformer, or equivalent)
c. High Voltage Rating	34.5 KV for MV transformers; 69 kV for main step-up
d. Low Voltage Rating	V for My transformers; 34.5 kV for main step-up
e. MVA rating	2.5 MYA for MV transformers; 10 MVA for main step-up
f. High voltage connection g. Low voltage connection	Bit/ cable/bushing for MV transformers
Description of metering, communications, and anonitoring	juwl Inc. Is currently providing O&M services to more than 250 MW of operating solar capacity a has been providing these services to the majority of its self-constructed facilities beginning at commercial operation. juwi Inc.'s asset management group has extensive experience galmed fro many vears operating utility scale solar projects. Juwi Inc. has developed a plant monitoring and control system which maximizes energy generation: while minimizing the downtime associated w planned and forced outages. The system also provides for the necessary control and dispatching functionality required by sophisticated utilities and grid operators. The juwi Inc. supervisory control and data acquisition (ScADA) system delivers a high level overlaw of plant operations in addition to environmental sensing and real-time electrical data associated with plant DC subsystems. The system is designed to provide operators with a sub-second response to importe events including communications outages, inverter failures and breaker trips. The SCADA instrumentation is comprised of several subsystems, including an industrial-hardened plant from plant sensors and communicates to the Enterprise SCADA system and the juwi Inc. Operations Cher In Colorado. The plant transet computer interacts with Inverter communications interfaces, high accuracy inverter-level AC and DC metering, pyranometers, here a communication is description of the plant the set of the Cherding and the juwi Inc. Operations Center in Colorado. The plant master computer interacts with Inverter communications interfaces, high accuracy inverter-level AC and DC metering, pyranometers, provide set of the provide operators in addition interfaces which appression set of the colorado.
-05	meteorological equipment, protective relaying, as well as utility-owned metering devices located the point of interconnection. The facility will require nighttime power to energize the transformers, keep the inverters on in stand-by mode, and power the communications and monitoring equipment. The expected annu (yearly) nighttime consumption will be 120 MWh; the average load will be approximately 27 KW.

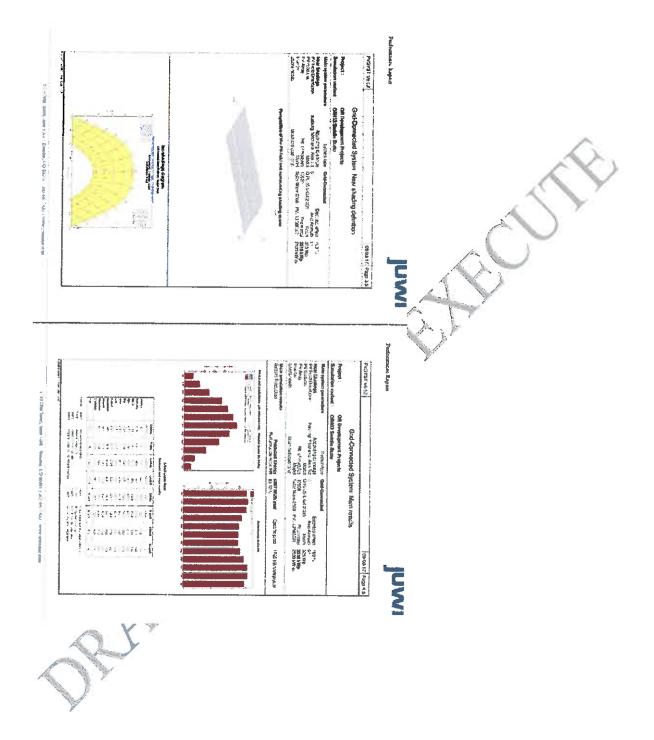
Performance	e Repor	rt											
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11	90.6	120,1	-718.9	248.9	354	2013		1.00	250.6	200.2	109.4	73.5	14(8.5
12	54.2	131.1	220.2	2567	242	20.0			245.6	3 984	108.0	-42	2,411.0
13	837	126.1	214.6	296.7	7.14		1.000	1.00	265.1	190,5	106.6	750	2,423.7
14	816	178.5	3.99.6	3945	2017	-		145	248.4	168.4	977	101	2,396.2
15	87.1	+3.6.1	197.4	739.)	343.5	2044			255.8	188.0	99.5	an 2	2,328.6
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The table below provides a 12×24 breakdown of the average hourly power (MW) by month.

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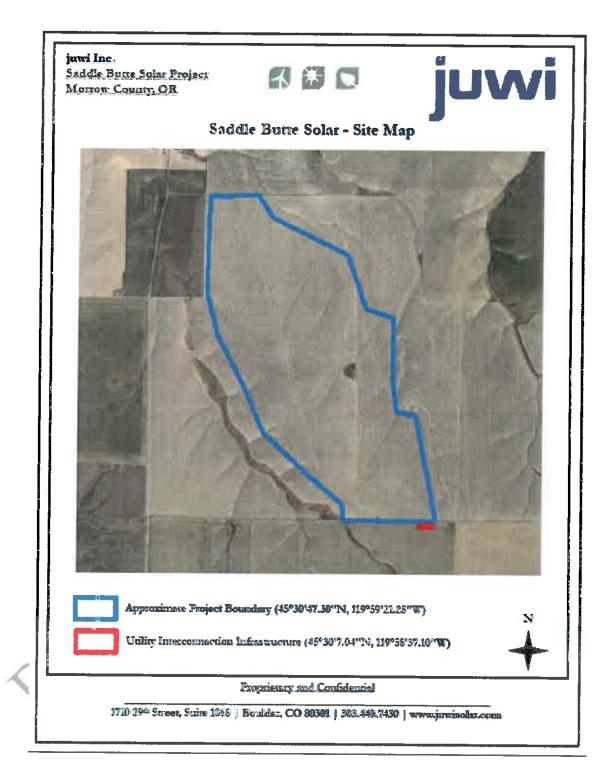




Performance Report

	Grid-Connected	System:	Loss diagram	
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	Stevel water link , Stoles, this work		Effective Practisance on collectors	
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1710 39th Street, State 1968 Bunkler, CO 80301 | 303.440,7430 | www.junimitiae.com



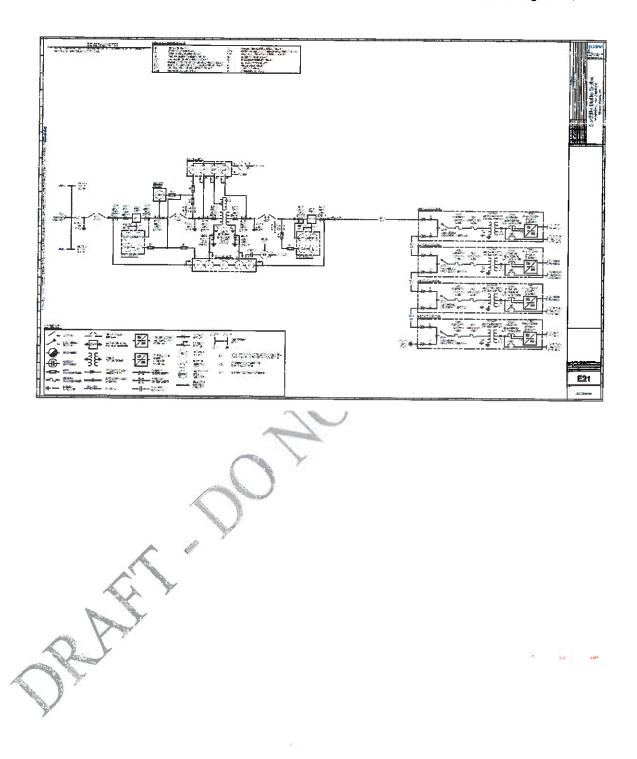


EXHIBIT B REQUIRED FACILITY DOCUMENTS

- 1. Sellers Generation Interconnection Agreement
- 2. Morrow County Conditional Use Permit (CUP)
- 3. FERC Qualifying Facility Self Certification (Form 556)
- 4. BPA Transmission Service Agreement

EXHIBIT C START-UP TESTING

1. Test Plan Overview

1.1. Purpose

Electrical testing is done to gain confidence that the system can be energized safely and will operate reliably.

The goal is to verify through testing that:

- The work performed provides for an installation meeting industry quality standards
- The construction of the project is in accordance with the contract documents
- Overall installation of the project meets applicable construction safety codes and standards
- All electrical installations are ready for start-b
- 1.2. Safety

EPC Contractor considers safety and quality installation in the highest regard. It must be noted that this Test Plan does not cover all possible items that may arise while testing a project. Should the tester encounter a condition not specifically identified herein, and is unable to evaluate the quality of the installation, the tester should document the concern, seek eutside assistance to help resolve the concern and determine the method of how to best resolve and capture the resolution.

All personnel associated with the testing of this project shall be adequately trained in construction jobsite safety. Any personnel performing tests shall be familiar with safety procedures especially those unique to solar projects. Additionally, all safety requirements specified by equipment or other material suppliers and vendors must be followed.

All environmental conditions such as ambient temperature, humidity, and working environment (vust, mud, insects, surface water, etc.) shall be considered crucial safety factors as part of the testing plan.

For an testing on exposed and energized equipment, proper PPE must be worn by all participants, and the buddy system shall be used. A minimum of a hard hat, safety glasses, over the ankle EH rated safety shoes, flame retardant cotton pants and shirt, and leather protectors and dielectric gloves will be worn for all testing on exposed and energized parts.

Safety Note: Additional PPE may be required, refer to the arc flash analysis for appropriate PPE for the equipment being tested. While working on or near exposed electrical equipment, steps must be taken to secure the area from nonqualified personnel via barriers or attendants as needed per the limited approach and arc flash boundaries.

2. General

2.1. Subcontractor requirements

Test procedures, equipment, temporary circuits, etc., shall be designed and utilized to minimize danger to testing technicians and surrounding personnel (e.g. current transformer temporary test circuits utilizing alligator clips will not be permitted). The contractor will furnish and use appropriately rated safety devices such as rubber gloves and blankets and provide protective screens and barriers, yellow or red tape, and danger signs to protect and warn all personnel adequately in the vicinity of the tests. The contractor will also provide full and comprehensive reports of all testing to EPC Contractor. In the case where problems are experienced, the contractor will notify EPC Contractor for directions and if directed, perform corrective action to resolve issue(s) and provide record of such corrections in a report.

3. Grounding

General Notes All testing shall be done only after grounding is buried and terminated To page oil ground maintener to be the resistance must be less them

- To pass all ground resistance tests the resistance must be less than or equal to 3 ohms.
- If the test leads need to be extended when measuring resistance, subtract out the resistance of the extensions from the total resistance.

Instruments Required

- Vanguard 100 amp, or equivalent, for point-to-point checks.
- Megger 100 amp, or equivalent, for ground grid resistance test.
- Fluke 1625, or equivalent, for soil resistance test.

3.1 Fence Ground Continuity (Test Form - GND-1)

- A.1. At fence grounding locations along the fence line measure and record the resistance between the fence and the closest grounded location within the fence (e.g. switchgear ground bus).
- 3.1.2. At all gate grounding locations, measure and record the resistance between the fence gate fabric and a grounded location within the fence (e.g. an array post, purlin, etc.).

- 3.1.3. Measure and record the resistance between the fence fabric and a grounded location within the fence (e.g. switchgear, etc.) at three locations along the fence line.
- 3.2. Ground Grid Resistance (Test Form GND-2)
 - 3.2.1. DC Field
 - 3.2.1.1. At five points within each Power Station area, measure and record the resistance between a rack and the rack three (3) rows to the north or south.
 - 3.2.1.2. Measure and record the resistance from the ground wire at each DCB to the ground wall at the power station it feeds.
 - 3.2.1.3. Within each power station make 4 spot check measurements between the DCBs and the rack bonding jumper on a position farthest from the DCB in the same row and record the resistance.
 - 3.2.2. Power Station

3.2.2

- 3.2.2.1. Measure and record the resistance between each pair of power station ground test wells to all adjacent pair of power stations ground test well.
 - Measure and record the resistance between the grounding terminals of the Power Station transformer and the closest test well to the Power Station.
 - 2.2.3. Measure and record the resistance between the ground attachment to power station structural steel and the closest test well to the power station.

Medium Voltage AC Interconnection Equipment

3.2.3.1. Measure and record the resistance from an exposed ground point within the interconnection equipment to the nearest ground adjacent to the interconnection equipment.

3.2.3.2. Measure and record the resistance from the test well at the Interconnection Equipment to the test wall at the adjacent Power Station.

4. DC Field Electrical Tests

	Before the testing begins: Confirm conductors are clear and will remain clear of personnel and free from contact with grounded surfaces
•	All testers must wear leather gloves
General	Notes
0	All testing shall be done only after grounding is buried and terminated
e	All IRT testing will take place at a temperature above the dew point
0	Electrical cabinets shall not be opened during precipitation unless properly tented.
Instrume	nts Required
•	VOC test kit
	Calibrated 1500 VDC rated Multi-meter
¢	Note paper and pencil
1. <u>DCE</u>	<u> 3 Feeder Identification (Test Form – DC-1)</u>
4.1.1	. Ensure that all fuse holders in the DCB are in the open position

Once the DCB feeders have been installed and pulled into their respective termination cabinet/location, check their continuity ("ring them out") to ground to confirm the polarity and termination location in the Inverter RCB termination cabinet.

4.2. DCB Feeder IRT Test/Megger Test (Test Form - DC-2)

If cables are direct buried, perform IRT/Megger testing when the trench has been backfilled and compacted and cabling has been run up to the points of termination (not terminated).

Safety Note: IRT voltage (2,500 VDC) requires the use of Class 1 gloves.

- 4.2.1. Testing shall not begin until all the conductors have been cut, stripped, and labeled.
- 4.2.2. To test individual conductors, isolate conductor on both ends and ensure all other conductors are separated from conductor under test. Connect one lead of the tester to the ground terminal and the other lead to the conductor to be tested.
- 4.2.3. Apply test voltage to the cable as specified in Table 1 below. Record the data from the tester on test form DC-2.
- 4.2.4. Install the lug in accordance with the termination manufacturer's instructions (if a compression connection is used), and terminate the DCB feeders to their corresponding locations at both the Inverter and in the DCB.
- 4.2.5. DO NOT close the fuse holders in the C
- 4.2.6. Using proper LOTO procedures, install a LOTO device on the DCB and DCB Switch.

Test	Test Voltage	Test Duration	Pass/Fail Range
RT of CB reeders in 1000 / or 1500 V ystem	2,500 X DC	0 seconds or until the reading settles	≥ 200 Mohms: pass < 200 Mohms, ≥ 100 Mohms: investigate <100 Mohms: fail

4.3. DC Combiner Box (DCB) & Switch Inspection (Test Form – DC-3A & DC-3B)

Safety Note: Confirm that the array feeders terminating in the DCBs for the inverter block being inspected have not been energized.

Note: EPC Contractor will provide the subcontractor with an inspection sheet which, at a minimum, will cover the following items.

4.3.1. Verify all the main DCB disconnect switches for the specific power station being inspected are in the **open** position.

- 4.3.2. In the DCB verify that all fuse holders in all DCBs for the specific power station are **open** and that all fuses have been removed and delivered to EPC Contractor.
- 4.3.3. Verify that the main disconnect handle on the door is engaged with the switch shaft and is operational.
- 4.3.4. Verify that the DCB is level, at the correct height and correctly installed with all trash (including papers shipped with the unit) removed within and around the DCB.
- 4.3.5. Visually inspect all string and field terminations in the DCB and confirm that they are correctly terminated and labeled in a neat and workmanlike manner.
- 4.3.6. Check that all mechanical electrical connections are properly tightened to the correct torque and marked with a torque mark.
- 4.3.7. Verify the correct installation, number, and size of the ground conductor terminations.
- 4.3.8. EPC Contractor will review testing documentation DC-1, DC-2 and DC-3A/B after the subcontractor has terminated and inspected the DC combiner boxes and before combiner box energization. The DC combiner boxes will be energized only after EPC Contractor approval.
- 4.4. DCB Feeder Polarity and Voltage Tests (Test Form DC-4)

Safety Note: DC Recembiner switches are NOT LOAD BREAK RATED.

Safety Note: String fuse installation and polarity testing requires a minimum PPE Level IV and the 0 gloves.



Confirm DCB Inspections, DCB Feeder IRT/Megger Tests have been completed on all DCBs connected to the Power Station undergoing DCB Feeder Polarity and Voltage Tests.

- 4.4.2. When final test data is reviewed and approved by EPC Contractor, all string (array) fuses will be installed and fuse holders closed by contractor.
- 4.4.3. At Inverter RCB termination cabinet, check Voc voltage from positive (+) to negative (-) for all inputs and then from the negative (-) bus to

the ground bus to confirm no voltage is present and the GFCI fuse/breaker is still closed. Finally, open the CB fuse and confirm no voltage is present at DC termination cabinet.

- 4.4.4. Confirm and communicate with all parties involved that the DCB feeders are terminated, clear of personnel, and can safely be energized. Ensure only one DCB per inverter will have a closed switch at a time during testing and inverter DC switch or preaker is locked and tagged open.
- 4.4.5. Following proper LOTO procedures remove the LOT@ device on the DCB, and check the Voc voltage from the positive array uppets to the negative bus to verify positive voltage near open dircuit values
- 4.4.6. Communicate the DCB number that is going to be tested, via radio, to the personnel at the corresponding inverter termination cabinet.
- 4.4.7. The personnel at the power station termination cabinet will then use an appropriately rated, 1500 VDC witmeter to measure and record the polarity and voltage.
- 4.4.8. If the polarity is not correct communicate to the person at the DCB, open the DCB switch and EOTO the switch in the open position.

Stop all effort and determine how the previous tests were inadequate.

Confirm with the appropriately inted voltmeter that the circuit is open and drained of capacitive voltage. Switch the terminations, color coding and labeling as appropriate to remedy the reverse solarity.

4.4.9. **If the polarity <u>is</u> correct,** record the measurement and open the switch.



After completing all required testing for a DCB including positive to ground and negative to ground in a similar fashion, LOTO the switch in the open position until startup.

5. Medium Voltage Testing

5.1. Test method shall be very low frequency (VLF) dielectric withstand voltage. Conductor may be combined for efficiency in effort with care taken to avoid excessive capacitance from too much total cable.

- 5.2. Compare installed equipment with drawings and specifications.
- 5.3. Inspect physical and mechanical condition.
- 5.4. Inspect anchorage, alignment, grounding, bend radius and clearances.
- 5.5. Inspect compression-applied connectors.
- 5.6. Inspect correct identification, labeling and arrangements.
- 5.7. Inspect cable jacket and insulation condition.
- 5.8. Perform resistance measurements through bolted connection with a low-resistance ohmmeter.
- 5.9. Perform insulation resistance from conductor to shield ground
- 5.10. Test shield continuity of each cable.
- 6. Oil Filled Transformer
 - 6.1. Inspect physical and mechanical condition.
 - 6.2. Inspect anchorage, alignment, grounding and required area clearances.
 - 6.3. Clean bushings and control dabinets.
 - 6.4. Verify operation of alarm, control, and trip circuits from temperature and level indicators, pressure relief device, fault pressure relay and fault monitor if applicable
 - 6.5. Verify that cooling fans and/or pumps operate correctly if applicable.
 - 6.6. Inspect bolted electrical connections for high resistance using a low-

Verify correct liquid level in tanks and bushings.

Verify that positive pressure is maintained on gas-blanketed transformers.

- 6.9. Perform inspections and mechanical tests as recommended by the manufacturer.
- 6.10. Verify de-energized tap-changer position is left as specified by EPC Contractor engineer.

- 6.11. Perform resistance measurements through bolted connections with a low-resistance ohmmeter.
- 6.12. Perform insulation-resistance tests, winding-to-winding and each winding-toground and calculate polarization index.
- 6.13. Perform turns-ratio tests on all tap positions.
- 6.14. Perform insulation power-factor or dissipation-factor tests on all wipdings
- 6.15. Perform power-factor or dissipation-factor tests on each bushing
- 6.16. Perform excitation-current tests in accordance with the test equipment manufacturer's published data.
- 6.17. Measure the resistance of each winding on nominal (center) tap position.
- 6.18. If the core ground strap is accessible, remove and measure the core insulation resistance at 500 volts DC.
- 6.19. Remove a sample of insulating liquid in accordance with ASTM D 3613 and perform dissolved-gas analysis (DGA) in accordance with ANSI/IEEE C57.104 or ASTM D3612.

EXHIBIT D SCHEDULE

AH AP

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 <u>www.portlandgeneral.com</u>. 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						
		-				ded Cos						-
L	<u>_</u>		S	andard F	ixed Pric	e Option	for Base	Load Q	F			
			-	C	<u>pn-Peak F</u>	orecast	<u>(\$/MWH)</u>					
						· · · ·			r			
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	42.81	30.21	19.11	12.56	<u>16.71</u>	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	<u>64.</u> 10	64.20	64.30	65.26	65.35
2023	<u>67.48</u>	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
<u>2025</u>	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

					Ţ	ABLE 1b						
			_			ided Cos				-		
<u> </u>			St	andard F				Load QF				_
				0	ff-Peak F	orecast	(\$/MWH)					
Year	Jan	Feb	Mar	A	Max		1.1					
2017	30.96	25.46	12.96	Apr 4.46	May	Jun 9.21	<u>Jul</u> 17,71	Aug 24.96	Sep 25.21	Oct	Nov	Dec
2018	24.82	26.66	24.24	15.66	11.92	-	_			23.71	24.96	29.71
2019	25.39	27.27	24.24	16.04	12,22	10.25 10.52	17.66	24.16	24.06	22.13	24.58	26.67
2013	27.90	29.97	24.80				18.08	24.72	24.62	22.65	25.15	27.28
2020				17.56	13.34	11.45	19.82	27.15	27.04	24.86	27.63	29.99
	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 2023	24.81 27.30	24.90 27.42	24.99	24.59	24.55	24.64	24.71	24.81	24.91	25.01	25.97	26.07
			27.52	26.88	26.94	27.04	27.14	27.23	27.35	27.44	<u>28.5</u> 1	28.62
2024 2025	29.30 31.06	29.42 31.20	29.53	29.13	28.81	28.94	29.03	29.14	29.26	29.94	30.17	30.29
2025	32.90		31.32	31.39	30.58	30.63	30.74	30.86	30.98	31.11	31.95	32.08
2020	34.99	<u>33.04</u> 35.13	33.16	32.46	32.33	32.44	32.55	32.68	32.82	32.94	33.99	34.13
2027			35.27	34.54	34.38	34.45	34.58	34.71	34.87	35.00	36.13	36.27
	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	<u>39.72</u>	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	<u>45.11</u>	46.39	_46.61
2033	47.85	48.06	48.17	46.94	47.17	45.54	45.71	45.91	<u>46.11</u>	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	<u>50.38</u>	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	<u>54.</u> 97	55.20	55.12	53.77	54.04	53.27	53.49	53.69	53.93	<u>54</u> .14	55.73	55.96
2039	56.49	<u>56.7</u> 4	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	<u>59.97</u>	60.23	60.14	58.70	58.98	58.18	58.40	58.61	58.87	59.09	60.77	61.03

	<u></u>					TABLE 2	3					
						oided Co						-
Ļ				Standa	rd Fixed	Price Opt	tion for V	Vind QF				
					<u>On-Peak</u>	Forecast	<u>(\$/MWH</u>)				
Xee		E.L.										
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	<u>27.97</u>
2019	28.30	27.69	24.62	16.33	15.56	15.56	24.68	27.98	25.35	<u>22,1</u> 1	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	<u>24.18</u>	23.99	24.00	24.05	24.10	24.18	24.42	25.01	25.69
2022	26.64	<u>26.7</u> 4	26.82	26.42	26.39	26.47	26.55	26.64	26.75	<u>26.</u> 84	27.81	<u>2</u> 7.90
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

		- 				TABLE 2)		·		<u> </u>	
					Av	oided Co	sts					
<u> </u>						Price Opi						
L				(Off-Peak	Forecast	(\$/MWH)				
Year	Jan	Feb	Mar	Apr	May	Jun	Jui	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
<u>2019</u>	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	<u> 30.53 </u>	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											
	Avoided Costs											
<u> </u>	Standard Fixed Price Option for Solar QF											
<u>.</u>	On-Peak Forecast (\$/MWH)											
		F . 1										
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	<u>34.8</u> 5	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

<u> </u>		-				TABLE 3	b					
	Avoided Costs											
	Standard Fixed Price Option for Solar QF											
L	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	29.7 1
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	<u>29.</u> 30	29.42	29.53	29.13	28.81	28.94	29.03	29.14	29.26	29. 9 4	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	<u>32</u> .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
<u>2030</u>	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 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)

Renewable Fixed Price Option (Continued)

	TABLE 4a											
	Renewable Avoided Costs											
<u> </u>	Renewable Fixed Price Option for Base Lozd QF											
	On-Peak 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		26.44	29.40	32.88
2019	35.13	34.47	<u>31.16</u>	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
<u>20</u> 22	110.29	110.18	108.51	_110.03	112.64	111.74	<u>111.34</u>	111.31	110.35	109.47	<u>110.72</u>	109.45
<u>2023</u>	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	<u>114.48</u>	116.87	115.98	115.88	115.65	115.49	113.39	114.27	114.38
2025	116.91	<u>117.20</u>	115.28	<u>117.34</u>	120.36	<u>119</u> .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	<u>1</u> 29.54	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

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	TABLE 4b											
	Renewable Avoided Costs											
	Renewable Fixed Price Option for Base Load QF											
	Off-Peak Forecast (\$/MWH)											
)	Inv								-			
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
<u>2020</u>	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	<u>56.</u> 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	<u>57</u> .38	56.90	58.03	60.02	57.37	59.34
2024	59.00	59.06	_61.83	58.87	_ 55.44	57.84	<u>56.81</u>	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

[ABLE 5a			_			
					Renewab							ĩ
	Renewable Fixed Price Option for Wind QF											
	On-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	. Au		l luna						_
2017	28.05	27.45	24.44	Apr 16.31	May 15.55	Jun 15.55	Jul	Aug	Sep	Oct	Nov	Dec
2018	28.64	28.03	24.44	16.67	15.90	15.90	24.50	27.74	25.16	21.98	24.88	28.30
2018	31.06	30.40	27.09	18.14			25.02	28.32	25.69	22.45	25.41	28.89
2019	65.63	65.62			17.31	17.31	27.16	30.72	27.88	24.38	27.58	31.34
2020	67.13	67.33	64.95	65.35	68.16	67.37	67.09	66.99	65.86	65.01	65.74	64.85
			66.01	66.95	69.45	68.79	68.28	68.73	67.40	66.52	<u>6</u> 7.66	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	<u>71.15</u>	71.26
2025	72.83	73.12	71.19	73.26	76.28	75.24	74.41	74.52	73.80	71.83		72.55
2026	74.86	74.57	73.29	75.21	79.12	76.06	76.06	76.42	76.17	<u>73.48</u>	75.09	74.26
2027	76.34	75.95	74.50	76.36	81.61	77.57	77.25	<u>78.51</u>	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	<u>77.6</u> 3	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	<u>90.13</u>	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

	TABLE 5b											
1					Renewabl							
	Renewable Fixed Price Option for Wind QF											
ļ	Off-Peak Forecast (\$/MWH)											
1 Year	1					<u> </u>						
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	<u>21.50</u>	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	<u>51.61</u>	51.99
2021	52.74	<u>52.06</u>	53.55	52.34	49.80	49.84	50.41	<u> 50.71 </u>	51.73	53,52	51.38	52.88
2022	53.47	53.18	55.15	53.15	50.48	50.81	<u>52.13</u>	51.27	52.72	54.51	52.21	53.85
2023	<u>5</u> 4.14	54.18	56.24	54.64	50.74	51. <u>77</u>	52.99	52.51	53.64	55.63	52.98	54.95
2024	54.53	<u>54.59</u>	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	<u>51.37</u>	54.33	<u>54</u> .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	<u>59.13</u>	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	<u>59</u> .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

	TABLE 6a											
	Renewable Avoided Costs											
<u> </u>	Renewable Fixed Price Option for Solar QF										_	
	On-Peak 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	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
<u>2032</u>	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	<u>89.</u> 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	<u>91.22</u>	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	<u>96.84</u>	100.20	110.81	103.97	100.39	101.34	<u>101.55</u>	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	<u>1</u> 17.35	110.10	106.32	107.32	107.55	103.49	104.66	104.20

			_		T	ABLE 6b						
						le Avoide						
	Renewable Fixed Price Option for Solar QF											
 	Off-Peak Forecast (\$/MWH)											
Year	Jan	Feb	Mar	A	Maria							
2017	25.07	26.91	24.49	Apr 15.91	May 12.17	<u>Jun</u>		Aug	Sep	Oct	Nov	Dec
2018	25.65	27.53	24.45	16.30	12.17	10.50 10.78	<u>17.91</u> 18.34	24.41	24.31	22.38	24.83	26.92
2019	28.18	30.25	25.00	17.84	13.62	11.73	20.10	24.98	24.88	22.91	25.41	27.54
2013	55.06	55.29	56.65	55.55				27.43	27.32	25.14	27.91	30.27
2020	56.97	56.29	57.78	56.57	52.58	52.78	53.04	54.06	54.85	55.93	55.76	56.14
2021	57.78				54.03	54.07	54.64	54.94	55.96	57.75	<u>55.61</u>	57.11
2022	58.53	57.49 58.57	<u>59.46</u> 60.63	57.46	54.79	55.12	56.44	55.58	57.03	58.82	56.52	58.16
2023	59.00	59.06		<u>59.03</u>	55.13	56.16	57.38	56.90	58.03	60.02	57.37	59.34
2024			61.83	58.87	55.44	57.84	56.81	57.13	58,45	60.26	59.15	59.71
	60.20	60.19	63.12	<u>59.74</u>	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	<u>61.32</u>
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	<u>64.41</u>
2029	63.86	64.58	67.38	64.49	51.11	61.67	62.62	61.41	_ 62.76	65.44	_ 64.59	<u>65.5</u> 3
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	<u>63.03</u>	<u>65.60</u>	65.74	64.36	68.89	68.74	68.06
2033	68.84	69.92	72.38	67.46	<u>53.94</u>	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	<u>65.66</u>	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	<u>76.9</u> 4	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	<u>81.18</u>	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								
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							
	4.31							
2023	4.39							
2024	4.47							
2025	<u>4.5</u> 6							
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							
<u>2035</u>	5.52							
2036	5.63							
2037	5.74							
2038	5.85							
<u>203</u> 9	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.
- 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.

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: <u>https://www.theice.com/products/OTC/Physical-Energy/Electricity</u>. 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.

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.