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### **BEFORE THE PUBLIC UTILITY COMMISSION**

#### **OF OREGON**

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Falls Creek Hydro Limited Partnership, Complainant,

v.

Portland General Electric Company, Defendant.

DOCKET NO. UM 1859 FIRST AMENDED COMPLAINT

# I. INTRODUCTION

This is a complaint ("Complaint") filed by Falls Creek H.P., Limited Partnership ("Falls Creek Hydro" or "Complainant") with the Oregon Public Utility Commission (the "Commission" or "OPUC") under Oregon Revised Statute ("ORS") 756.500 and Oregon Administrative Rule ("OAR") 860-001-0170. Portland General Electric Company ("PGE" or the "Company") has not agreed to purchase the net output from Falls Creek Hydro's qualifying facility ("QF") ("Falls Creek Hydro Project") as a mandatory purchase under the Public Utility Regulatory Policies Act of 1978 ("PURPA"). PGE has failed to comply with its own rate Schedule 201, the Commission's rules and policies, the Federal Energy Regulatory Commission's ("FERC") rules and policies, and the Oregon and federal PURPA statutes. PGE has refused to finalize or execute a power purchase agreement ("PPA") with Falls Creek Hydro.

Falls Creek Hydro has formed a legally enforceable obligation because it has been ready, willing, and able to sign a PPA with PGE since at least July 13, 2017, and has repeatedly and unequivocally committed itself to sell the net output to PGE at the renewable Schedule 201 avoided cost rates and standard PPA terms and conditions that are currently in effect. This includes Falls Creek Hydro obligating itself to provide power or be subject to penalty pursuant to the standard PPA terms and conditions for failing to deliver energy on the scheduled commercial on-line date. PGE should be required to execute a PPA with Falls Creek Hydro because the establishment of a legally enforceable obligation turns on Falls Creek Hydro's commitment, and not PGE's actions.

Falls Creek Hydro has formed a legally enforceable obligation despite PGE's failure to execute a PPA because PGE has violated PURPA, the Commission's and FERC's rules and policies, and its own Schedule 201. PGE's actions that have sought to prevent Falls Creek Hydro from forming a legally enforceable obligation include, but are not limited to: 1) intentionally or inadvertently providing inaccurate information and PPA documents; 2) delaying the PPA negotiation process; 3) seeking an early rate effective date for its post integrated resource plan ("IRP") avoided cost rate update;<sup>1</sup> 4) stating that it was not willing to provide Falls Creek Hydro with an executable PPA or otherwise

<sup>&</sup>lt;sup>1</sup> On August 4, 2017, PGE announced in its 2016 IRP proceeding 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").

execute a PPA; and 5) refusing to provide an executable PPA or otherwise execute a PPA that should have been provided no later than July 20, 2017.<sup>2</sup> PGE is required to comply with Commission orders and policies, and cannot unilaterally refuse to comply with the law or prevent Falls Creek Hydro from forming a legally enforceable obligation simply because it has sought an early effective date for its next avoided cost rate decrease.

The Commission cannot revise its own rules or policies to lower the size threshold, impose an ownership cap, or make other changes in a manner that effectively prevents Falls Creek Hydro from committing itself to sell the net output of its project or otherwise creating a legally enforceable obligation. Falls Creek Hydro has relied upon the Commission maintaining a settled and uniform institutional climate for QFs, and upholding its policies regarding eligibility for standard avoided cost rates and contracts, including ensuring that Falls Creek Hydro is able to enter contracts or create legally enforceable obligations based on the policies and rules in effect at the time that the QF makes its request for a PPA.

Given PGE's refusal to execute a PPA and attempt to change Commission policies to prevent Falls Creek Hydro from executing a PPA, Falls Creek Hydro respectfully requests that the Commission confirm: 1) that Falls Creek Hydro has a legally enforceable obligation with PGE based on its commitment to sell its net output under the partially executed PPA (modified as detailed herein), which is the same as the Commission's approved contract and rates and the last draft PPA provided by PGE; and 2) require PGE to enter into a PPA with Falls Creek Hydro with the rates, terms, and

<sup>&</sup>lt;sup>2</sup> Falls Creek Hydro would have requested and obtained an executable PPA earlier, if PGE had provided advance notice that it would seek early avoided cost rate effective dates.

conditions under Schedule 201 and the standard renewable PPA in effect between June 1,

2017 and September 18, 2017.

# II. SERVICE

Copies of all pleadings and correspondence should be served on Falls Creek

Hydro's counsel and representatives at the addresses below:

Irion Sanger Sanger Law, PC 1117 SE 53rd Ave. Portland, Oregon 97215 irion@sanger-law.com Gary Marcus Falls Creek H.P., Limited Partnership PO Box 23508 Eugene, Oregon 97402 GaryMarcus1@aol.com

Marie P. Barlow Sanger Law, PC 1117 SE 53rd Ave. Portland, Oregon 97215 marie@sanger-law.com

In support of this Complaint, Falls Creek Hydro alleges as follows:

# **III. IDENTITY OF THE PARTIES**

1. PGE is an investor-owned public utility regulated by the Commission

under ORS Chapter 757. PGE is headquartered at 121 Southwest Salmon Street,

Portland, Oregon 97204.

2. Falls Creek H.P., Limited Partnership, a limited partnership company

organized under the laws of Oregon, is the owner of the Falls Creek Hydro Project and

will be the seller of the net output of the Falls Creek Hydro Project. Falls Creek Hydro's

address is Falls Creek H.P., Limited Partnership, PO Box 23508, Eugene, OR 97402.

#### IV. APPLICABLE STATUTES AND RULES

3. The Oregon statutes expected to be involved in this case include: ORS 756.040-756.068, 756.500-756.558, 756.990, and 758.505-758.575. The Oregon rules expected to be involved in this case include: OAR 860-001, and 860-029.

4. The federal statute expected to be involved in this case is PURPA, 16 United States Code ("USC") 824a-3. The federal rules expected to be involved in this case include: 18 Code of Federal Regulations ("CFR") 292.101-292.602.

#### V. JURISDICTION

5. FERC has adopted regulations and policies governing utility purchases from QFs under PURPA. 18 CFR 292.101-292.602. State regulatory agencies are required to implement FERC's regulations. <u>See</u> 16 USC 824a-3(f); <u>FERC v. Mississippi</u>, 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 23-25 (2016).

6. Oregon law also includes a requirement that a QF has the right to legally obligate itself to sell its net output prior to the delivery of its net output. Specifically, ORS 758.525(2)(b) provides: "At the option of the qualifying facility, exercised before beginning delivery of the energy or energy and capacity, such prices may be based on . . . [t]he projected avoided costs calculated at the time the legal obligation to purchase the energy or energy and capacity is incurred." Thus, the "obligation to purchase power is

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imposed by law on a utility; it is not voluntarily assumed." <u>Snow Mountain Pine Co. v.</u> <u>Maudlin</u>, 84 Or. App. 590, 598, 734 P.2d 1366 (1987).

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

#### VI. FACTUAL BACKGROUND

8. The Falls Creek Hydro Project is a 4.1 megawatt ("MW") nameplate hydroelectric generation facility located in Linn County, Oregon.

9. The Falls Creek Hydro Project is interconnected with PacifiCorp.

Falls Creek Hydro first contacted PGE in January 2017 regarding its
 desire to sell power to PGE under Schedule 201 rates, beginning as early as January 2018
 (see Attachment A).

11. PGE's Senior Vice President of Power Supply, Operations and Resource Strategy and/or other PGE executives changed PGE's business practices to do the minimum required with the purpose of preventing QFs from entering into contracts.

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12. PGE's Senior Vice President of Power Supply, Operations and Resource Strategy and/or other PGE executives explained to PGE's employees that PGE does not favor QFs.

13. PGE's Senior Vice President of Power Supply, Operations and Resource Strategy and/or other PGE executives directed PGE's employees to revise their business practices to do the minimum required with the purpose of preventing QFs from entering into contracts.

14. PGE's Senior Vice President of Power Supply, Operations and Resource Strategy and/or other PGE executives have represented that PGE does not favor QFs.

15. PGE retained a new attorney to work alongside the PPA group to make sure they only do what is necessary and the minimum required with the purpose of preventing QFs from entering into contracts.

16. Falls Creek Hydro understood that PGE would make its annual avoided cost rate update filing on May 1, 2017, but expected PGE's avoided cost rates to change in the end of June 2017.

17. Falls Creek Hydro was aware that PGE's IRP was scheduled for acknowledgement at the end of August 2017, and expected PGE's avoided cost rates to be revised about two months later, or the end of October 2017.

18. On June 6, 2017, Falls Creek Hydro sent PGE a complete copy of all required information in hard copy and electronic form. Falls Creek Hydro informed PGE that it was an off-system QF interconnected to PacifiCorp and requested a Standard Renewable Off-System Non-Variable Power Purchase Agreement with the Schedule 201

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Renewable Fixed Price Option. Falls Creek Hydro's June 6, 2017 cover pages and cover letter are attached to this First Amended Complaint as Attachment B.

19. Falls Creek Hydro's June 6, 2017 submission to PGE included a notebook, the cover page of which had the title "Application to Portland General Electric For a Standard Renewable Off-System Non-Variable PPA" (see Attachment B).

20. Falls Creek Hydro filled its project-specific information into PGE's Standard Renewable Off-System Non-Variable Power Purchase Agreement and attached this agreement to its June 6, 2017 submission (attached as Attachment C).

21. Falls Creek Hydro also attached to its June 6, 2017 submission, Exhibit A specifying the minimum deliveries of 9,700,000 kWh (see Attachment C) and a graph showing its maximum and minimum production (see Attachment D).

22. Falls Creek Hydro also attached PGE's Schedule 201 Renewable Fixed Price Option for Base Load QF's (table 4a and 4b) to its June 6, 2017 submission indicating that those are the rates requested for the PPA (see Attachment D).

23. Falls Creek Hydro also included a summary of the documents needed for the Standard Renewable Off-System Non-Variable Power Purchase Agreement (attached as Attachment E).

24. On June 13, 2017, PGE responded incorrectly stating that PGE received the request on June 9, 2017 and that by June 29, 2017 PGE would send a draft standard PPA or a request for any additional or clarifying information.

25. Falls Creek corrected PGE's incorrect date with a copy of the FedEx delivery receipt. Various communications have occurred, including Falls Creek

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resubmitting information in a more recent format requested by PGE, but which was simply a restating of information which PGE already possessed.

26. In these early communications, PGE did not inform Falls Creek, that a draft PPA would not be provided unless only specific points of delivery ("POD") were listed.

27. On June 26, 2017, PGE refused to provide a draft PPA, and instead requested two items that: 1) Falls Creek identify a POD for the project that was not PACW.PGE; and 2) Falls Creek fill out exactly the same electronic form that Falls Creek had already completed. Falls Creek originally listed PAC-PGE as a potential POD; however, final transmission arrangements for Falls Creek had not been finalized, especially over the entire duration of a 15 year PPA.

28. On both June 26, 2017 and June 30, 2017, Falls Creek agreed to PGE's request to look into a different POD, and made one change to the electronic form to list the POD as "BPAT.PGE."

29. On June 30, 2017, Falls Creek Hydro submitted a revised Initial Information Request ("IIR") excel spreadsheet to PGE (attached as Attachment F).

30. Falls Creek Hydro's June 30, 2017 IIR contained a minimum net output of9,700,000 kWh (see Attachment F).

31. Falls Creek Hydro's June 30, 2017 IIR listed the Required Facility Documents including all required agreements to record Renewable Energy Certificates, and Aurora was listed as the Qualified Reporting Entity (see Attachment F).

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32. On July 3, 2017, PGE stated that PGE would send Falls Creek Hydro either a draft PPA or a request for any additional or clarifying information that PGE may require by July 24, 2017.

33. On July 3, 2017, Falls Creek Hydro informed PGE that it was concerned that PGE was delaying the PPA process so that PGE will not execute a PPA before avoided cost rates change again. Falls Creek Hydro explained that it was aware that PGE's IRP was scheduled for acknowledgement by August 31, 2017, that rates could change about November 1, 2017, that it was concerned that the delays may impact the ability to complete a PPA prior to the rate change, and requested that PGE move expeditiously to finalize the PPA.

34. On July 3, 2017, Falls Creek Hydro stated that it was concerned that PGE may request an early effective date of any post-IRP avoided cost rate update, and requested to be informed prior to PGE making an early rate decrease request, if PGE intended to make such a request, so that it can finalize its PPA prior to the rate decrease.

35. On July 7, 2017, PGE provided Falls Creek Hydro with a Draft Standard PPA (PGE's letter is attached as Attachment G, and the Draft PPA as Attachment H).

36. The Draft Standard PPA was a Standard Off-System Non-Variable Power Purchase Agreement instead of the Standard Renewable Off-System Non-Variable Power Purchase Agreement requested by Falls Creek Hydro (see Attachment H).

37. The Draft Standard PPA did not include Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A (see Attachment H).

38. The Draft Standard PPA included detailed information of the Falls Creek Hydro project in Exhibit B, Description of the Sellers Facility, which appears to just be

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copied from the IIR form and other documents submitted by Falls Creek Hydro (see Attachment H).

39. The Draft Standard PPA listed "Required Facility Documents" in Exhibit C including "All required agreement to record Renewable Energy Certificates" (see Attachment H).

40. The only reason that the Draft Standard PPA listed "Required Facility Documents" in Exhibit C including "All required agreement to record Renewable Energy Certificates" is that PGE would have ownership of the Renewable Energy Certificates when Falls Creek delivered its net output to PGE.

41. PGE intended to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested.

42. PGE intended to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

43. PGE intended to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested for the purpose of preventing Falls Creek from entering into a PPA with renewable prices.

44. PGE's action to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that

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Falls Creek Hydro requested was in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

45. If PGE did not intend to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested, then it was a mistake.

46. PGE's listing of the "Required Facility Documents" in Exhibit C including "All required agreement to record Renewable Energy Certificates" demonstrates that PGE intended to provide Standard Renewable Off-System Non-Variable PPA and not the Standard Off-System Non-Variable PPA.

47. PGE's failure to include Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A to the Draft Standard PPA was intentional.

48. PGE intended to leave out Falls Creek Hydro's minimum delivery of9,700,000 kWh for the purpose of preventing Falls Creek from entering into a PPA priorto avoided cost rates changing.

49. PGE intended to leave out Falls Creek Hydro's minimum delivery of 9,700,000 kWh for the purpose of preventing Falls Creek from entering into a PPA with the correct minimum delivery amount.

50. PGE's action to leave out Falls Creek Hydro's minimum delivery of
 9,700,000 kWh was in compliance with PGE's revised business practices to prevent QFs
 from entering into contracts.

51. If PGE did not intend to leave out Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A, then it was a mistake.

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52. At that time and at any time prior to filing its Complaint in this matter, Falls Creek Hydro failed to notice that the Draft Standard PPA was not a Renewable Standard PPA as requested or that PGE did not specify its minimum deliveries at 9,700,000 kWh.

53. PGE intended to provide Falls Creek Hydro a Draft Standard PPA that included more than the minimum required information in Exhibit B.

54. PGE intended to provide Falls Creek Hydro a Draft Standard PPA that included more than the minimum required information in Exhibit B for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

55. PGE intended to provide a Draft Standard PPA that included more than the minimum required information in Exhibit B for the purpose of using that information to terminate a PPA upon any slight deviation from that information.

56. If PGE did not provide a Draft Standard PPA that included more than the minimum required information in Exhibit B for the purpose of using that information to terminate a PPA upon any slight deviation from that information, then PGE intended the information in Exhibit B to be informational only.

57. PGE's action to provide a Draft Standard PPA that included more than the minimum required information in Exhibit B was in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

58. If PGE did not intend to provide a Draft Standard PPA that included more than the minimum required information in Exhibit B, then it was a mistake.

59. On July 13, 2017, Falls Creek Hydro requested that PGE provide a final executable PPA.

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60. Schedule 201 allows a QF to directly request an executable PPA rather than a final PPA.

61. On July 13, 2017, Falls Creek Hydro identified two non-substantive changes: 1) to change the county from "Lane" to "Linn"; and 2) change the nameplate of the facility from 4.96 MW to 4.1 MW. Both changes make minor revisions to change information in the draft PPA to information that was originally provided by Falls Creek to PGE. In other words, the revisions were to correct errors inserted by PGE in the draft PPA.

62. PGE intended to provide Falls Creek Hydro a Draft Standard PPA that incorrectly identified the county as Lane instead of Linn.

63. PGE intended to incorrectly identify the county as Lane in the Draft Standard PPA for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

64. PGE intended to incorrectly identify the county as Lane in the Draft Standard PPA for the purpose of preventing Falls Creek from entering into a PPA with the correct county.

65. PGE's action to incorrectly identify the county as Lane in the Draft Standard PPA was in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

66. If PGE did not intend to incorrectly identify the county as Lane in the Draft Standard PPA, then it was a mistake.

67. PGE intended to provide Falls Creek Hydro a Draft Standard PPA that incorrectly identified the nameplate capacity as 4.96 MW.

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68. PGE intended to incorrectly identify the nameplate capacity in the Draft Standard PPA for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

69. PGE intended to incorrectly identify the nameplate capacity in the Draft Standard PPA for the purpose of preventing Falls Creek from entering into a PPA with the correct nameplate capacity.

70. PGE's action to incorrectly identify the nameplate capacity in the Draft Standard PPA was in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

71. If PGE did not intend to incorrectly identify the nameplate capacity in the Draft Standard PPA, then it was a mistake.

72. If Falls Creek Hydro had noticed at that time that PGE failed to use the Renewable Standard PPA form and failed to include the minimum deliveries, then Falls Creek Hydro would have also identified those as additional non-substantive changes in its July 13, 2017 correspondence.

73. On July 13, 2017, Falls Creek Hydro requested that PGE send an executable PPA by July 20, which was five business days from July 13, 2017. Falls Creek Hydro explained that the draft contract should have been sent on June 26, 2017, but was instead sent on July 7, 2017, which was ten business days from after its due date. Thus, Falls Creek Hydro requested that PGE subtract ten business days from PGE next maximum response time.

74. On July 13, 2017, Falls Creek Hydro requested that PGE skip the step of providing a final PPA and directly provide an executable PPA because there were no

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substantive changes in the draft PPA and Falls Creek Hydro's only changes were to correct ministerial errors made by PGE. The Commission's policies and rules and PGE's Schedule 201 allow a QF to move directly from draft to executable PPA.

75. On July 14, 2017, PGE stated that it intended to continue to follow its "regular" Schedule 201 process, which PGE characterized as responding within fifteen business days (i.e., by August 3, 2017) with either a final PPA (if any changes you request are non-substantive), a new draft PPA (if any changes you request are substantive), or a request for any additional or clarifying information that PGE requires to further process your request for a PPA.

76. PGE has not always followed the Schedule 201 process characterized in paragraph 75.

77. PGE only recently created the Schedule 201 process characterized in paragraph 75 in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

78. On July 14, 2017, PGE did not notify Falls Creek Hydro that it intended to make its August Early Rate Effective Date Request, acknowledge that the only changes were to correct ministerial errors made by PGE or that the Commission's rules and policies and Schedule 201 allow a QF to move directly from draft to executable PPA.

79. On July 17, 2017, Falls Creek Hydro again requested that PGE sends Falls Creek Hydro a final, executable PPA no later than July 20, 2017 in compliance with the PGE's Commission approved Schedule 201 procedures.

80. On July 17, 2017, Falls Creek Hydro stated that PGE had violated Schedule 201 by sending Falls Creek a draft PPA that contained two non-substantive

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errors created by PGE, and which should not result in delaying the delivery of an executable contract to Falls Creek until PGE's QF prices fall.

81. On July 17, 2017, Falls Creek Hydro explained that the July 7, 2017 draft PPA incorrectly identified Falls Creek's generator's name plate capacity as 4.96 MW when Falls Creek correctly provided information that the generator has a nameplate capacity of 4.1 MW.

82. On July 17, 2017, Falls Creek Hydro explained that the Falls Creek Hydro Project is located in Linn, County, and that PGE had the correct GPS coordinates for the project as 44.396 N, -122.348, and PGE had the physical address of the project located in Cascadia, Oregon 97329, both of which are in Linn County, but the draft PPA misstated the county as Lane instead of Linn.

83. On July 17, 2017, Falls Creek Hydro explained that, if PGE had sent Falls Creek Hydro a draft contract that had correctly stated the Falls Creek nameplate and county, then Falls Creek would have approved the draft contract, and PGE would have been required to send Falls Creek an executable contract.

84. On July 20, 2017, Falls Creek Hydro again requested that PGE provide an executable PPA.

85. On August 3, 2017, PGE provided Falls Creek Hydro a draft final PPA (PGE's letter is attached as Attachment I and the Final Draft PPA as Attachment J).

86. The Final Draft Standard PPA that PGE provided was a Standard Off-System Non-Variable Power Purchase Agreement instead of the Standard Renewable Off-System Non-Variable Power Purchase Agreement requested by Falls Creek Hydro (see Attachment J).

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87. The Final Draft Standard PPA did not include Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A (see Attachment J).

88. The Final Draft Standard PPA included detailed information of the Falls Creek Hydro project in Exhibit B, Description of the Sellers Facility, which appears to just be copied from the IIR form and other documents submitted by Falls Creek Hydro (see Attachment J).

89. The Final Draft Standard PPA listed "Required Facility Documents" in Exhibit C including "All required agreement to record Renewable Energy Certificates" (see Attachment J).

90. PGE intended to provide Falls Creek Hydro the Final Draft Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested.

91. If PGE did not intend to provide Falls Creek Hydro the Final Draft Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested, then it was a mistake.

92. PGE's failure to include Falls Creek Hydro's minimum deliveries of9,700,000 kWh in Exhibit A to the Final Draft Standard PPA was also intentional.

93. If PGE did not intend to leave out Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A to the Final Draft Standard PPA, then it was a mistake.

94. At that time and at any time prior to filing its Complaint in this matter, Falls Creek Hydro failed to notice that the Final Draft Standard PPA was not a

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Renewable Standard PPA as requested or that PGE did not specify its minimum deliveries at 9,700,000 kWh.

95. On August 3, 2017, PGE stated that the Final Draft PPA is a discussion draft, it is not a binding offer and PGE reserved the right to revise any of its variable terms, including the exhibits.

96. PGE has a pattern and practice of revising final draft PPAs when it provides the executable PPA, and not informing QFs that it was making the changes.

97. On August 3, 2017, PGE stated that no binding PPA will exist between PGE and Falls Creek Hydro unless and until PGE has provided Falls Creek Hydro with an executable Standard PPA and both Falls Creek Hydro and PGE have executed the document.

98. On August 3, 2017, PGE stated that Falls Creek Hydro could: 1) decide not to pursue a PPA any further; 2) propose in writing substantive changes; or 3) send PGE a written request to prepare an executable PPA without proposing any substantive changes.

99. On August 3, 2017, PGE stated that if Falls Creek Hydro requests an executable Standard PPA without proposing substantive changes to the project proposal or the variable terms of the final draft PPA, then within fifteen business days of receiving your written request, PGE will send either an executable PPA or request additional or clarifying information if PGE reasonably determines that additional information is necessary to prepare an executable PPA.

100. On August 3, 2017, PGE stated that once Falls Creek Hydro has received an executable PPA, Falls Creek Hydro execute it without alteration and establish a legally enforceable obligation, and that Falls Creek Hydro is not entitled to the current avoided cost rates until its executes the executable PPA. Therefore, PGE stated that Falls Creek could not establish a legally enforceable obligation until PGE provides an executable PPA.

101. 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.

102. On August 4, 2017, PGE confirmed that the usual Commission process is PGE must file to update avoided cost prices within 30 days of the Commission's IRP acknowledgement, and once PGE files, there is a 90-day review period before prices become effective.

103. 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 plan will be eligible for current avoided cost rates.

104. PGE's IRP was likely to be acknowledged prior to when PGE intends to provide Falls Creek Hydro an executable PPA.

105. PGE's August 4, 2017 statements in its IRP and its August 4, 2017 statements to Falls Creek mean that PGE intends to prevent Falls Creek Hydro from obtaining a legally enforceable obligation.

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106. PGE chose not to inform Falls Creek Hydro that PGE intended to make the August Early Rate Effective Date Request.

107. PGE did not inform Falls Creek Hydro that PGE intended to make the August Early Rate Effective Date Request in order to ensure that Falls Creek Hydro would not timely execute a PPA.

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

109. PGE's intent and purpose for requesting that QFs that have not entered into a contract or achieve a legally enforceable obligation prior to acknowledgment of the IRP not being eligible for current avoided cost rates is to prevent Falls Creek Hydro and other qualifying facilities from being able to complete and execute a PPA at current rates.

110. On August 4, 2017, Falls Creek Hydro stated that it accepted the Final Draft PPA that included the two ministerial changes that Falls Creek Hydro previously identified to correct PGE's errors, and requested an executable PPA.

111. On August 4, 2017, Falls Creek Hydro stated that PGE did not directly inform Falls Creek Hydro that PGE had stated on August 4, 2017 in its 2016 IRP that it would make an August Early Rate Effective Date Request.

112. If Falls Creek Hydro had noticed at that time that PGE failed to use the Renewable Standard PPA form and failed to include the minimum deliveries, then Falls

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Creek Hydro would have identified those as additional non-substantive changes in its August 4, 2017 correspondence.

113. Falls Creek Hydro was separately made aware PGE will not provide current rates to QFs that execute a PPA or form a LEO after the Commission acknowledges your IRP, which could occur before PGE provides an executable PPA.

114.PGE could have informed Falls Creek Hydro that it was going to makeAugust Early Rate Effective Date Request.

On August 4, 2017, Falls Creek Hydro requested that PGE immediately:
 confirm that it will commit to provide Falls Creek Hydro with the current prices; and
 provide an executable PPA on Monday, August 7, 2017.

116. On August 4, 2017, Falls Creek Hydro stated that it was ready, willing, and able to sign a PPA with PGE and is unequivocally committed itself to sell the net output to PGE at the Schedule 201 avoided cost rates and standard PPA terms and conditions that are currently in effect, including Falls Creek Hydro obligating itself to provide power or be subject to penalty pursuant to the PPA terms and conditions for failing to deliver energy on the scheduled commercial on-line date.

117. On August 6, 2017, Falls Creek Hydro executed the last draft PPA that PGE provided.

118. On August 7, 2017, Falls Creek Hydro informed PGE that it was again committing itself to sell power to PGE under the currently effective Schedule 201 rates, and the terms and conditions of the partially executed PPA, and obligating itself to provide power or be subject to penalty for failing to deliver energy on the scheduled commercial on-line date.

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119. PGE was due to provide Falls Creek Hydro an executable PPA prior to PGE's avoided cost rate change effective September 18, 2017.

120. On September 1, 2017, Falls Creek Hydro submitted written comments to the Commission Docket No. UM 1728. <u>Re Portland General Electric Company</u>, <u>Application to Update Schedule 201 Qualifying Facility Information</u>, Docket No. UM 1728, Falls Creek Hydro's Comments (Sept. 1, 2017) (attached as Attachment K).

121. Falls Creek Hydro made oral comments at the September 12, 2018 public hearing in Docket No. UM 1728, PGE's avoided cost rate update. Oregon Public Utility Commission, Public Meeting on Sept. 12, 2017 (starting at 37:42).

122. Falls Creek Hydro's written and oral comments referred to the Falls Creek Hydro project as a renewable project (see Attachment K).

123. At all times, Falls Creek Hydro assumed that it was receiving a Renewable Standard PPA, at the renewable rates designated in PGE's Schedule 201 tables 4a and 4b.

124. Based on Falls Creek Hydro's documents, correspondence, and testimony, PGE was aware that Falls Creek Hydro wanted a Renewable Standard Contract.

125. At all times, Falls Creek Hydro assumed that the information it provided to PGE regarding minimum deliveries was included in the PPA.

126. Based on Falls Creek Hydro's documents and correspondence, PGE was aware that Falls Creek Hydro's minimum deliveries should be specified at 9,700,000 kWh.

127. PGE refuses to modify the draft PPA to reflect that Falls Creek Hydro requested and PGE should have provided a Standard Renewable Off-System Non-Variable PPA.

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128. PGE refuses to modify the draft PPA to reflect that Falls Creek Hydro's minimum deliveries are 9,700,000 kWh.

129. Falls Creek Hydro is continuing to move forward on its interconnection with PacifiCorp.

130. Under its interconnection agreement, Falls Creek Hydro is due to pay up to \$1.2 million over the course of the next year.

131. If Falls Creek Hydro is not able to finalize its contract with PGE at the pre-September 18, 2017 renewable avoided cost rates or enter into a PPA with similar rates, then the Falls Creek Hydro facility will likely need to be decommissioned.

## VII. LEGAL CLAIMS

### **Complainant's First Claim for Relief**

# Falls Creek Hydro is entitled to PGE's standard renewable contract with the Schedule 201 rates effective on June 1, 2017 because Falls Creek Hydro legally obligated itself to sell the net output prior to the filing of this Complaint

132. Falls Creek Hydro re-alleges all the preceding paragraphs.

133. PGE has an obligation to purchase a QF's net output that is directly or

indirectly made available to PGE. 18 CFR 292.303(a)&(d), 292.304(d); ORS

758.525(2)(b), 758.535(2)(a)&3(b); OAR 860-029-0030(1).

134. PGE has an obligation to purchase the net output of a QF pursuant to either a contract or a legally enforceable obligation. 18 CFR 292.304(d); Order No. 69, FERC Stats. & Regs. ¶ 30,128, 45 Fed. Reg. 12,214 at 12,219-20, 12,224 (1980). A legally enforceable obligation is broader than a simple contract between an electric utility and a QF, and may exist without a written, executed contract. <u>FLS Energy</u>, 157 FERC ¶ 61,211 at PP 24, 26; <u>Grouse Creek, LLC</u>, 142 FERC ¶ 61,187 at P 38 (2013).

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135. The establishment of a legally enforceable obligation turns on the QF's commitment to sell its net output to the electric utility. <u>FLS Energy</u>, 157 FERC ¶ 61,211 at P 24; <u>JD Wind 1, LLC</u>, 129 FERC ¶ 61,148, at P 25 (2009). A QF can enter into a legally enforceable obligation by committing itself to sell power to an electric utility. <u>FLS Energy</u>, 157 FERC ¶ 61,211 at P 25; <u>Cedar Creek Wind, LLC</u>, 137 FERC ¶ 61,006 at PP 36, 39 (2011); <u>Snow Mountain</u>, 734 P.2d at 1371.

136. A QF can require a utility to purchase its net output, even if the utility has refused to enter into a contract. Id. at 1370-71; FLS Energy, 157 FERC ¶ 61,211 at P 24; <u>Murphy Flat Power</u>, 141 FERC ¶ 61,145 at P 24 (2012); <u>Grouse Creek</u>, 142 FERC ¶ 61,187 at P 38. A utility cannot refuse to sign a contract "so that a later and lower avoided cost is applicable." <u>FLS Energy</u>, 157 FERC ¶ 61,211 at P 25; <u>Cedar Creek</u> <u>Wind</u>, 137 FERC ¶ 61,006 at P 36. Similarly, a QF cannot be required to tender an executed interconnection agreement to form a legally enforceable obligation because that 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.

137. The Commission has confirmed the process for obtaining a PPA includes: "(1) a QF initiates the process by submitting certain information, the utilities then have 15 days to provide a draft standard contract; (2) the QF may agree to the terms of the draft contract and ask the utility to provide a final executable contract, or suggest changes; (3) the utility provides iterations of the draft standard contract no later than 15 days after each round of comments by the negotiating QF; and (4) when the QF indicates that it agrees to all the terms in the draft contract, the utility has 15 days to forward a final executable contract to the QF." <u>Re Investigation Into QF Contracting and Pricing</u>,

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Docket No. UM 1610, Order No. 16-174 at 24 (May 13, 2016). Thus, when the QF informs PGE that it has agreed to all terms and conditions in the draft PPA, then PGE is required to provide an executable PPA to the QF.

138. The Commission has determined that a legally enforceable obligation will be established "once a QF signs the final draft of an executable contract provided by a utility to commit itself to sell power to the utility." <u>Re Investigation Into QF Contracting</u> <u>and Pricing</u>, Docket No. UM 1610, Order No. 16-174 at 3, 27-28 (May 13, 2016). However, a legally enforceable obligation "may be established earlier if a QF demonstrates delay or obstruction of progress towards a final draft of an executable contract, such as a failure by a utility to provide a QF with required information or documents on a timely basis." <u>Id.</u>

139. 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 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).

140. FERC has found that legally enforceable obligations have been created in about one month. <u>Rainbow Ranch Wind</u>, LLC, 139 FERC ¶ 61,077 at PP 2-5, 24 (2012); <u>Grouse Creek Wind Park, LLC</u>, 142 FERC ¶ 61,187, at PP 37-43 (2013).

141. Falls Creek Hydro has the option to select either a renewable or a nonrenewable avoided cost rate.

142. Falls Creek Hydro has repeatedly committed itself to sell power to PGE under the Schedule 201 renewable rates effective on June 1, 2017, and the terms and conditions of the draft PPA (with the changes noted in paragraph 143), including to

provide power or be subject to penalty for failing to deliver on the scheduled commercial on-line date. These commitments include but are not limited to Falls Creek Hydro's request for an executable PPA on June 13, July 7, July 26, and August 2, 2017, Falls Creek Hydro's demand letter sent on August 2, 2017, and Falls Creek Hydro's execution of the draft PPA on August 6, 2017.

143. The terms and conditions of Falls Creek Hydro's legally enforceable obligation are as designated in the draft PPA, except that Falls Creek Hydro's minimum deliveries should be specified as 9,700,000 kWh in Exhibit A to the PPA, the terms should conform to the terms of the Standard Renewable Off-System Non-Variable Power Purchase Agreement instead of the Standard Off-System Non-Variable Power Purchase Agreement, and Exhibit B should include only the minimum description of seller's facility.

144. Falls Creek Hydro has continued to commit, and is still committing, itself to sell the net output of the Falls Creek Hydro Project to PGE at the Schedule 201 rates, terms, and conditions in the partially executed final PPA.

145. PGE is required to purchase the net output of the Falls Creek Hydro Project at the Schedule 201 rates in tables 4a and 4b, and the terms and conditions in the partially executed final PPA modified to account for the changes (as indicated in paragraph 143), despite PGE's refusal to execute the partially executed final PPA.

146. Falls Creek Hydro's execution of the draft PPA, continuing commitment to sell the net output of the Falls Creek Hydro Project, and efforts to obtain PGE's execution of the partially executed final PPA establish a legally enforceable obligation at

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the currently effective Schedule 201 rates, and all the terms and conditions in the partially executed final PPA.

#### **Complainant's Second Claim for Relief**

Falls Creek Hydro is entitled to PGE's standard renewable contract with the Schedule 201 rates effective on June 1, 2017 because Falls Creek Hydro 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

147. Falls Creek Hydro re-alleges all the preceding paragraphs.

148. The Commission has established rules, policies, standard contracts, and rate schedules to facilitate and direct the process by which a QF and an Oregon electric utility enter into a contract. <u>Re Investigation Relating to Electric Utility Purchases from QFs</u>, Docket No. UM 1129, Order No. 05-584 at 6-12, 16 (May 13, 2005). The purpose of the Commission approving standard contacts and schedules for each utility is to pre-establish "rates, terms and conditions that an eligible QF can elect without any negotiation with the purchasing utility" and to "eliminate negotiations . . . ." <u>Id.</u> at 12, 16.

149. PGE's PURPA purchase obligation applies to any QF delivering power to PGE, whether the power is delivered directly or indirectly to PGE. 18 CFR 292.303(a)&(d). As FERC has stated, these "regulations require the electric utility's [PURPA] purchase obligation to be applied to both off-system as well as on-system QFs on a comparable basis." <u>PáTu Wind Farm, LLC v. Portland General Electric Co.</u>, 151 FERC ¶ 61,223 at P 46 (2015).

150. "A utility is obligated under PURPA to purchase the output of a QF as long as the QF can deliver its power to the utility." <u>Kootenai Elec. Coop., Inc.</u>, 143 FERC ¶ 61,232 at P 33 (2013) <u>reh'g denied</u> 145 FERC 61,229 at P 15 (2013). The QF has the discretion to choose to sell to a more distant utility that it is not interconnected with "as long as the QF can deliver its power to the utility." <u>Id.</u> A QF can sell its net output at the Commission-approved avoided cost rates by delivering such output at the point where its transmission provider and its purchasing utility's transmission systems interconnect. <u>Id.</u>

151. PGE's failure to abide by the terms of PURPA, the Commission's rules and policies, FERC's rules and policies, and/or Schedule 201 can result in the creation of a legally enforceable obligation. <u>Re Investigation Into QF Contracting and Pricing</u>, Docket No. UM 1610, Order No. 16-174 at 3, 27-28 (May 13, 2016); <u>Snow Mountain</u>, 734 P.2d at 1371; <u>International Paper v. PacifiCorp</u>, Docket No. UM 1449, Order No. 09-439 at 6 (Nov 4, 2009).

152. The Commission's polices include that, "when the QF indicates that it agrees to all the terms in the draft contract, the utility has 15 days to forward a final executable contract to the QF." <u>Re Investigation Into QF Contracting and Pricing</u>, Docket No. UM 1610, Order No. 16-174 at 24 (May 13, 2016).

153. PGE's Schedule 201 includes timelines and requirements that a utility should follow when entering into a PPA with a QF 10 MWs and under. Schedule 201 provides that: "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."

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

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155. By no later than July 20, 2017, Falls Creek Hydro and PGE had agreed to all terms and conditions, and Falls Creek Hydro requested executed a final executable version of the PPA.

156. PGE did not provide and has not provided a final executable version of the PPA.

157. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it refused to provide a draft PPA until Falls Creek Hydro identified "BPAT.PGE" as POD. PGE should have identified any concerns regarding the POD, but it should also have provided a draft PPA. There is no provision in the standard PPA which lists the POD, Schedule 201 requires transmission arrangements to be identified prior to PPA execution and not prior to providing a draft PPA, and there is no reason why a complete draft PPA could not have been provided with PGE's request to identify a different POD.

158. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it refused to provide a draft PPA until Falls Creek Hydro identified "BPAT.PGE" as POD. PODs have not historically been listed in PGE's PPAs, and a QF can change its POD over the course of its PPA depending on available transmission.

159. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it refused to notify Falls Creek Hydro that it planned to make August Early Rate Effective Date Request with the intention to prevent Falls Creek Hydro from timely executing a PPA, despite Falls Creek Hydro's request that PGE inform it of any such request.

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160. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it stated that no binding PPA will exist between PGE and Falls Creek Hydro unless and until PGE has provided Falls Creek Hydro with an executable PPA.

161. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it stated that no binding PPA will exist between PGE and Falls Creek Hydro unless Falls Creek Hydro and PGE both have executed the PPA.

162. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it delayed and obstructed progress toward executing a PPA.

163. PGE delayed and obstructed progress towards an executable PPA by intentionally providing Falls Creek Hydro a Non-Renewable draft Standard PPA instead of the Renewable Standard PPA.

164. PGE delayed and obstructed progress towards an executable PPA by refusing to modify the draft standard PPA to the Renewable Standard PPA terms.

165. PGE delayed and obstructed progress towards an executable PPA by intentionally omitting Falls Creek Hydro's minimum deliveries from the draft PPAs.

166. PGE delayed and obstructed progress towards an executable PPA by refusing to modify the draft PPA to reflect the fact that Falls Creek Hydro indicated its minimum deliveries in its PPA request.

167. PGE is not permitted to require additional information in a Standard PPA then what the Commission has approved.

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168. PGE delayed and obstructed progress towards an executable PPA by including detailed information of the Falls Creek Hydro project in Exhibit B, Description of the Sellers Facility.

169. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 by including detailed information of the Falls Creek Hydro project in Exhibit B, Description of the Sellers Facility.

170. PGE delayed and obstructed progress towards an executable PPA by incorrectly identifying the county as Lane instead of Linn.

171. PGE delayed and obstructed progress towards an executable PPA by incorrectly identifying the nameplate capacity as 4.96 MW instead of 4.1 MW.

172. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it refused to provide an executable PPA or to execute the draft PPA.

173. PGE's violations of the Commission's rules and policies, FERC's rules and policies, and Schedule 201, and Falls Creek Hydro's execution of the final PPA, continuing commitment to sell the net output of the Falls Creek Hydro Project, and efforts to obtain PGE's signature resulted in a legally enforceable obligation at the currently effective Schedule 201 rates, and all the terms and conditions in the partially executed final PPA.

### **Complainant's Third Claim for Relief**

Falls Creek Hydro is entitled to PGE's standard renewable contract with the Schedule 201 rates effective on June 1, 2017 because Falls Creek Hydro 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 by attempt to commit regulatory fraud 174. Falls Creek Hydro re-alleges all the preceding paragraphs.

175. The elements of fraud include: 1) a representation; 2) its falsity; 3) its materiality; 4) the speaker's knowledge of the representation or ignorance of its truth; 5) intent the representation be acted in a manner reasonably contemplated; 6) the hearer's ignorance of the falsity of the representation; 7) the hearer's reliance upon its truth; 8) the hearer' right to rely on the representation; and 9) damage.

176. PGE represented that Falls Creek Hydro could not request an executable PPA unless requested a final PPA.

177. PGE represented that PGE might provide an executable PPA to form a legally enforceable obligation.

178. PGE represented that no binding PPA will exist between PGE and Falls Creek Hydro unless and until PGE has provided Falls Creek Hydro with an executable Standard PPA and both Falls Creek Hydro and PGE have executed the document.

179. PGE represented that it could provide an executable PPA to Falls Creek Hydro, when it fact PGE was intending not to provide an executable PPA to Falls Creek Hydro.

180. Each of the representations in paragraphs 176-179 are false.

181. Each of the representations in paragraphs 176-179 are material.

182. PGE was aware that each of the representations in paragraphs 176-179 were false.

183. PGE's intent in making the representations in paragraphs 176-179 were than Falls Creek Hydro would act in reliance upon them.

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184. Falls Creek Hydro was ignorant of the falsity of the representations in paragraphs 176-179 when they were made.

185. Falls Creek Hydro would have relied upon the falsity of the representations in paragraphs 176-179 if it had not been contacted by counsel.

186. Falls Creek Hydro has the right to rely upon PGE making truthful representations.

187. Falls Creek Hydro would have suffered damages if it had not been informed that PGE's representations were false.

188. PGE's attempt to commit regulatory fraud, and violations of the Commission's rules and policies, FERC's rules and policies, and Schedule 201, and Falls Creek Hydro's execution of the final PPA, continuing commitment to sell the net output of the Falls Creek Hydro Project, and efforts to obtain PGE's signature resulted in a legally enforceable obligation at the currently effective Schedule 201 rates, and all the terms and conditions in the partially executed final PPA.

# **Complainant's Fourth and Alternative Claim for Relief**

Falls Creek Hydro is entitled to PGE's standard renewable contract with the Schedule 201 rates effective on June 1, 2017 and including its minimum deliveries because Falls Creek Hydro legally obligated itself to sell the net output prior to the filing of this Complaint and the errors in drafting the PPA were due to mutual mistake.

189. Falls Creek Hydro re-alleges all the preceding paragraphs.

190. PGE and Falls Creek Hydro intended to negotiate a Standard Renewable

Off-System Non-Variable Power Purchase Agreement.

191. PGE and Falls Creek Hydro intended to include Falls Creek Hydro's

minimum deliveries of 9,700,000 kWh in the PPA.

192. PGE failed to provide a draft, final, or executable PPA in the Standard Renewable Off-System Non-Variable Power Purchase Agreement form.

193. PGE failed to include Falls Creek Hydro's minimum deliveries of9,700,000 kWh in the PPA.

194. Falls Creek Hydro failed to notice and request that PGE correct the errors in paragraphs 192 and 193.

195. PGE and Falls Creek Hydro made a mutual mistake in failing to use the Standard Renewable Off-System Non-Variable Power Purchase Agreement and failing to include the minimum deliveries of 9,700,000 kWh.

196. The PPA should be reformed to include the terms of the Standard Renewable Off-System Non-Variable Power Purchase Agreement and the minimum deliveries of 9,700,000 kWh.

#### VIII. PRAYER FOR RELIEF

WHEREFORE, Falls Creek Hydro respectfully requests the Commission issue an order:

- Finding PGE in violation of: 1) the mandatory purchase obligation of the Oregon PURPA; 2) the mandatory purchase obligation of the federal PURPA; 3) FERC's PURPA regulations, policies, and orders; 4) the Commission's PURPA regulations, policies, and orders; and 5) PGE's Schedule 201;
- Requiring PGE to purchase the net output of the Falls Creek Hydro Project at the Schedule 201 rates effective on June 1, 2017, and all the terms and conditions in the partially executed final PPA modified to include Falls Creek Hydro's

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minimum deliveries, the terms of the Renewable Standard PPA, and only the minimum required information in Exhibit B;

- 3. Requiring PGE to enter into a PURPA PPA with Falls Creek Hydro at the Schedule 201 rates effective on June 1, 2017, and all the terms and conditions in the partially executed final PPA modified to include Falls Creek Hydro's minimum deliveries, the terms of the Renewable Standard PPA, and only the minimum required information in Exhibit B;
- Instituting penalties up to \$10,000 pursuant to ORS 756.990 against PGE and paid by PGE's shareholders for each violation of ORS 758.525(2), 758.535(2)(b), 18 CFR 292.303(a), 292.304(d), and Commission Order Nos. 05-584 and 16-174.
- 5. Granting any other such relief as the Commission deems necessary.

Dated this 6th day of April 2018.

Respectfully submitted,

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

Of Attorneys for Falls Creek Hydro

### **CERTIFICATE OF FILING**

I certify that on April 6th, 2018, I filed the foregoing Complaint on behalf of Falls Creek Hydro with the Oregon Public Utility Commission by electronic communication as consistent with OAR 860-001-0170.

Quion Savojon

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

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## **BEFORE THE PUBLIC UTILITY COMMISSION**

#### **OF OREGON**

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Falls Creek Hydro Limited Partnership, Complainant,

v.

Portland General Electric Company, Defendant.

DOCKET NO. <u>UM 1859</u>

FIRST AMENDED COMPLAINT

## I. INTRODUCTION

This is a complaint ("Complaint") filed by Falls Creek H.P., Limited Partnership ("Falls Creek Hydro" or "Complainant") with the Oregon Public Utility Commission (the "Commission" or "OPUC") under Oregon Revised Statute ("ORS") 756.500 and Oregon Administrative Rule ("OAR") 860-001-0170. Portland General Electric Company ("PGE" or the "Company") has not agreed to purchase the net output from Falls Creek Hydro's qualifying facility ("QF") ("Falls Creek Hydro Project") as a mandatory purchase under the Public Utility Regulatory Policies Act of 1978 ("PURPA"). PGE has failed to comply with its own rate Schedule 201, the Commission's rules and policies, the Federal Energy Regulatory Commission's ("FERC") rules and policies, and the Oregon

and federal PURPA statutes. PGE has refused to finalize or execute a power purchase agreement ("PPA") with Falls Creek Hydro.

Falls Creek Hydro has formed a legally enforceable obligation because it has been ready, willing, and able to sign a PPA with PGE since at least July 13, 2017, and has repeatedly and unequivocally committed itself to sell the net output to PGE at the <u>renewable</u> Schedule 201 avoided cost rates and standard PPA terms and conditions that are currently in effect. This includes Falls Creek Hydro obligating itself to provide power or be subject to penalty pursuant to the standard PPA terms and conditions for failing to deliver energy on the scheduled commercial on-line date. PGE should be required to execute a PPA with Falls Creek Hydro because the establishment of a legally enforceable obligation turns on Falls Creek Hydro's commitment, and not PGE's actions.

Falls Creek Hydro has formed a legally enforceable obligation despite PGE's failure to execute a PPA because PGE has violated PURPA, the Commission's and FERC's rules and policies, and its own Schedule 201. PGE's actions that have sought to prevent Falls Creek Hydro from forming a legally enforceable obligation include, but are not limited to: 1) intentionally or inadvertently providing inaccurate information and PPA documents; 2) delaying the PPA negotiation process; 23) seeking an early rate effective date for its post integrated resource plan ("IRP") avoided cost rate update;<sup>1</sup> 34) stating

<sup>&</sup>lt;sup>1</sup> On August 4, 2017, PGE announced in its 2016 IRP proceeding 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").

that it was not willing to provide Falls Creek Hydro with an executable PPA or otherwise execute a PPA; 4and 5) refusing to provide an executable PPA or otherwise execute a PPA that should have been provided no later than July 20, 2017.<sup>2</sup> PGE is required to comply with Commission orders and policies, and cannot unilaterally refuse to comply with the law or prevent Falls Creek Hydro from forming a legally enforceable obligation simply because it has sought<del>, but not yet obtained,</del> an early effective date for its next avoided cost rate decrease.

The Commission cannot revise its own rules or policies to lower the size threshold, impose an ownership cap, or make other changes in a manner that effectively prevents Falls Creek Hydro from committing itself to sell the net output of its project or otherwise creating a legally enforceable obligation. Falls Creek Hydro has relied upon the Commission maintaining a settled and uniform institutional climate for QFs, and upholding its policies regarding eligibility for standard avoided cost rates and contracts, including ensuring that Falls Creek Hydro is able to enter contracts or create legally enforceable obligations based on the policies and rules in effect at the time that the QF makes its request for a PPA.

Given PGE's refusal to execute a PPA and attempt to change Commission policies to prevent Falls Creek Hydro from executing a PPA, Falls Creek Hydro respectfully requests that the Commission confirm: 1) that Falls Creek Hydro has a legally enforceable obligation with PGE based on its commitment to sell its net output under the partially executed PPA; (modified as detailed herein), which is the same as the

<sup>&</sup>lt;sup>2</sup> Falls Creek Hydro would have requested and obtained an executable PPA earlier, if PGE had provided advance notice that it would seek early avoided cost rate effective dates.

Commission's approved contract and rates and the last draft PPA provided by PGE; and

2) require PGE to enter into a PPA with Falls Creek Hydro with the rates, terms, and

conditions under Schedule 201 and the standard renewable PPA currently in effect

between June 1, 2017 and September 18, 2017.

## II. SERVICE

Copies of all pleadings and correspondence should be served on Falls Creek

Hydro's counsel and representatives at the addresses below:

Irion Sanger Sanger Law, PC 1117 SE 53rd Ave. Portland, Oregon 97215 irion@sanger-law.com

Sidney Villanueva Marie P. Barlow Sanger Law, PC 1117 SE 53rd Ave. Portland, Oregon 97215 sidneymarie@sanger-law.com

Gary Marcus Falls Creek H<u>.P.ydro</u>, Limited Partnership PO Box 23508 Eugene, Oregon 97402 GaryMarcus1@aol.com

In support of this Complaint, Falls Creek Hydro alleges as follows:

## **III. IDENTITY OF THE PARTIES**

1. PGE is an investor-owned public utility regulated by the Commission

under ORS Chapter 757. PGE is headquartered at 121 Southwest Salmon Street,

Portland, Oregon 97204.

2. Falls Creek H.P., Limited Partnership, a limited partnership company

organized under the laws of North CarolinaOregon, is the owner of the Falls Creek Hydro

Project and will be the seller of the net output of the Falls Creek Hydro Project. Falls

Creek Hydro's address is Falls Creek H.P., Limited Partnership, PO Box 23508, Eugene, OR <u>9740</u>97402.

#### IV. APPLICABLE STATUTES AND RULES

3. The Oregon statutes expected to be involved in this case include: ORS 756.040-756.068, 756.500-756.558, 756.990, and 758.505-758.575. The Oregon rules expected to be involved in this case include: OAR 860-001, and 860-029.

4. The federal statute expected to be involved in this case is PURPA, 16 United States Code ("USC") 824a-3. The federal rules expected to be involved in this case include: 18 Code of Federal Regulations ("CFR") 292.101-292.602.

#### V. JURISDICTION

5. FERC has adopted regulations and policies governing utility purchases from QFs under PURPA. 18 CFR 292.101-292.602. State regulatory agencies are required to implement FERC's regulations. <u>See</u> 16 USC 824a-3(f); <u>FERC v. Mississippi</u>, 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 23-25 (2016).

6. Oregon law also includes a requirement that a QF has the right to legally obligate itself to sell its net output prior to the delivery of its net output. Specifically, ORS 758.525(2)(b) provides: "At the option of the qualifying facility, exercised before beginning delivery of the energy or energy and capacity, such prices may be based on . . . [t]he projected avoided costs calculated at the time the legal obligation to purchase the

#### PAGE 5—<u>FIRST AMENDED</u> COMPLAINT

energy or energy and capacity is incurred." Thus, the "obligation to purchase power is imposed by law on a utility; it is not voluntarily assumed." <u>Snow Mountain Pine Co. v.</u> <u>Maudlin</u>, 84 Or. App. 590, 598, 734 P.2d 1366 (1987).

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

## VI. FACTUAL BACKGROUND

8. The Falls Creek Hydro Project is a 4.1 megawatt ("MW") nameplate hydroelectric generation facility located in Linn County, Oregon.

9. The Falls Creek Hydro Project is interconnected with PacifiCorp.

10.Falls Creek Hydro first contacted PGE in January 2017 regarding itsdesire to sell power to PGE under Schedule 201 rates, beginning as early as January 2018(see Attachment A).

<u>11.</u> PGE's Senior Vice President of Power Supply, Operations and Resource Strategy and/or other PGE executives changed PGE's business practices to do the minimum required with the purpose of preventing QFs from entering into contracts. 12.PGE's Senior Vice President of Power Supply, Operations and ResourceStrategy and/or other PGE executives explained to PGE's employees that PGE does notfavor QFs.

13. PGE's Senior Vice President of Power Supply, Operations and Resource Strategy and/or other PGE executives directed PGE's employees to revise their business practices to do the minimum required with the purpose of preventing QFs from entering into contracts.

14.PGE's Senior Vice President of Power Supply, Operations and ResourceStrategy and/or other PGE executives have represented that PGE does not favor QFs.

15. PGE retained a new attorney to work alongside the PPA group to make sure they only do what is necessary and the minimum required with the purpose of preventing QFs from entering into contracts.

<u>10.16.</u> Falls Creek Hydro understood that PGE would make its annual avoided cost rate update filing on May 1, 2017, but expected PGE's avoided cost rates to change in the end of June 2017.

**<u>11.17.</u>** Falls Creek Hydro <u>iswas</u> aware that PGE's IRP <u>iswas</u> scheduled for acknowledgement at the end of August 2017, and <u>expectsexpected</u> PGE's avoided cost rates to be revised about two months later, or the end of October 2017.

<u>12.18.</u> On June 6, 2017, Falls Creek Hydro sent PGE a complete copy of all required information in hard copy and electronic form. Falls Creek Hydro informed PGE that it was an off-system <u>PPA interconnected to PacifiCorp.QF interconnected to</u> <u>PacifiCorp and requested a Standard Renewable Off-System Non-Variable Power</u> <u>Purchase Agreement with the Schedule 201 Renewable Fixed Price Option. Falls Creek</u>

## 

Hydro's June 6, 2017 cover pages and cover letter are attached to this First Amended Complaint as Attachment B.

<u>19.</u> Falls Creek Hydro's June 6, 2017 submission to PGE included a notebook, the cover page of which had the title "Application to Portland General Electric For a Standard Renewable Off-System Non-Variable PPA" (see Attachment B).

20. Falls Creek Hydro filled its project-specific information into PGE's Standard Renewable Off-System Non-Variable Power Purchase Agreement and attached this agreement to its June 6, 2017 submission (attached as Attachment C).

21. Falls Creek Hydro also attached to its June 6, 2017 submission, Exhibit A specifying the minimum deliveries of 9,700,000 kWh (see Attachment C) and a graph showing its maximum and minimum production (see Attachment D).

22. Falls Creek Hydro also attached PGE's Schedule 201 Renewable Fixed Price Option for Base Load QF's (table 4a and 4b) to its June 6, 2017 submission indicating that those are the rates requested for the PPA (see Attachment D).

23. Falls Creek Hydro also included a summary of the documents needed for the Standard Renewable Off-System Non-Variable Power Purchase Agreement (attached as Attachment E).

<u>13.24.</u> On June 13, 2017, PGE responded incorrectly stating that PGE received the request on June 9, 2017 and that by June 29, 2017 PGE would send a draft standard PPA or a request for any additional or clarifying information.

14:25. Falls Creek corrected PGE's incorrect date with a copy of the FedEx delivery receipt. Various communications have occurred, including Falls Creek

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resubmitting information in a more recent format requested by PGE, but which was simply a restating of information which PGE already possessed.

<u>15.26.</u> In these early communications, PGE did not inform Falls Creek, that a draft PPA would not be provided unless only specific points of delivery ("POD") were listed.

**16:27.** On June 26, 2017, PGE refused to provide a draft PPA, and instead requested two items that: 1) Falls Creek identify a POD for the project that was not PACW.PGE; and 2) Falls Creek fill out exactly the same electronic form that Falls Creek had already completed. Falls Creek originally listed PAC-PGE as a potential POD; however, final transmission arrangements for Falls Creek had not been finalized, especially over the entire duration of a 15 year PPA.

<u>17.28.</u> On both June 26, 2017 and June 30, 2017, Falls Creek agreed to PGE's request to look into a different POD, and made one change to the electronic form to list the POD as "BPAT.PGE."

29. On June 30, 2017, Falls Creek Hydro submitted a revised Initial Information Request ("IIR") excel spreadsheet to PGE (attached as Attachment F).

<u>30.</u> Falls Creek Hydro's June 30, 2017 IIR contained a minimum net output of 9,700,000 kWh (see Attachment F).

31. Falls Creek Hydro's June 30, 2017 IIR listed the Required Facility Documents including all required agreements to record Renewable Energy Certificates, and Aurora was listed as the Qualified Reporting Entity (see Attachment F).

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<u>18.32.</u> On July 3, 2017, PGE stated that PGE would send Falls Creek Hydro either a draft PPA or a request for any additional or clarifying information that PGE may require by July 24, 2017.

<u>19.33.</u> On July 3, 2017, Falls Creek Hydro informed PGE that it was concerned that PGE was delaying the PPA process so that PGE will not execute a PPA before avoided cost rates change again. Falls Creek Hydro explained that it was aware that PGE's IRP was scheduled for acknowledgement by August 31, 2017, that rates could change about November 1, 2017, that it was concerned that the delays may impact the ability to complete a PPA prior to the rate change, and requested that PGE move expeditiously to finalize the PPA.

<u>20.34.</u> On July 3, 2017, Falls Creek Hydro stated that it was concerned that PGE may request an early effective date of any post-IRP avoided cost rate update, and requested to be informed prior to PGE making an early rate decrease request, if PGE intended to make such a request, so that it can finalize its PPA prior to the rate decrease.

35. On July 7, 2017, PGE provided Falls Creek Hydro with a Draft Standard PPA (PGE's letter is attached as Attachment G, and the Draft PPA as Attachment H).

<u>36.</u> The Draft Standard PPA was a Standard Off-System Non-Variable Power Purchase Agreement instead of the Standard Renewable Off-System Non-Variable Power Purchase Agreement requested by Falls Creek Hydro (see Attachment H).

<u>37. The Draft Standard PPA did not include Falls Creek Hydro's minimum</u> deliveries of 9,700,000 kWh in Exhibit A (see Attachment H).

38.The Draft Standard PPA included detailed information of the Falls CreekHydro project in Exhibit B, Description of the Sellers Facility, which appears to just be

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copied from the IIR form and other documents submitted by Falls Creek Hydro (see Attachment H).

39. The Draft Standard PPA listed "Required Facility Documents" in Exhibit C including "All required agreement to record Renewable Energy Certificates" (see Attachment H).

40. The only reason that the Draft Standard PPA listed "Required Facility Documents" in Exhibit C including "All required agreement to record Renewable Energy Certificates" is that PGE would have ownership of the Renewable Energy Certificates when Falls Creek delivered its net output to PGE.

41. PGE intended to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested.

42. PGE intended to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

43. PGE intended to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested for the purpose of preventing Falls Creek from entering into a PPA with renewable prices.

44.PGE's action to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that

Falls Creek Hydro requested was in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

45. If PGE did not intend to provide Falls Creek Hydro the Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested, then it was a mistake.

46. PGE's listing of the "Required Facility Documents" in Exhibit C including "All required agreement to record Renewable Energy Certificates" demonstrates that PGE intended to provide Standard Renewable Off-System Non-Variable PPA and not the Standard Off-System Non-Variable PPA.

47. PGE's failure to include Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A to the Draft Standard PPA was intentional.

48. PGE intended to leave out Falls Creek Hydro's minimum delivery of 9,700,000 kWh for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

49. PGE intended to leave out Falls Creek Hydro's minimum delivery of 9,700,000 kWh for the purpose of preventing Falls Creek from entering into a PPA with the correct minimum delivery amount.

50. PGE's action to leave out Falls Creek Hydro's minimum delivery of 9,700,000 kWh was in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

51. If PGE did not intend to leave out Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A, then it was a mistake.

52. At that time and at any time prior to filing its Complaint in this matter, Falls Creek Hydro failed to notice that the Draft Standard PPA was not a Renewable Standard PPA as requested or that PGE did not specify its minimum deliveries at 9,700,000 kWh.

53. PGE intended to provide Falls Creek Hydro a Draft Standard PPA that included more than the minimum required information in Exhibit B.

54. PGE intended to provide Falls Creek Hydro a Draft Standard PPA that included more than the minimum required information in Exhibit B for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

55. PGE intended to provide a Draft Standard PPA that included more than the minimum required information in Exhibit B for the purpose of using that information to terminate a PPA upon any slight deviation from that information.

56. If PGE did not provide a Draft Standard PPA that included more than the minimum required information in Exhibit B for the purpose of using that information to terminate a PPA upon any slight deviation from that information, then PGE intended the information in Exhibit B to be informational only.

57. PGE's action to provide a Draft Standard PPA that included more than the minimum required information in Exhibit B was in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

58. If PGE did not intend to provide a Draft Standard PPA that included more than the minimum required information in Exhibit B, then it was a mistake.

21.59. On July 13, 2017, Falls Creek Hydro requested that PGE provide a final executable PPA.

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22.60. Schedule 201 allows a QF to directly request an executable PPA rather than a final PPA.

23.61. On July 13, 2017, Falls Creek Hydro identified two non-substantive changes: 1) to change the county from "Lane" to "Linn"; and 2) change the nameplate of the facility from 4.96 MW to 4.1 MW. Both changes make minor revisions to change information in the draft PPA to information that was originally provided by Falls Creek to PGE. In other words, the revisions were to correct errors inserted by PGE in the draft PPA.

62. PGE intended to provide Falls Creek Hydro a Draft Standard PPA that incorrectly identified the county as Lane instead of Linn.

63. PGE intended to incorrectly identify the county as Lane in the Draft Standard PPA for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

64. PGE intended to incorrectly identify the county as Lane in the Draft Standard PPA for the purpose of preventing Falls Creek from entering into a PPA with the correct county.

65. PGE's action to incorrectly identify the county as Lane in the Draft Standard PPA was in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

66. If PGE did not intend to incorrectly identify the county as Lane in the Draft Standard PPA, then it was a mistake.

67. PGE intended to provide Falls Creek Hydro a Draft Standard PPA that incorrectly identified the nameplate capacity as 4.96 MW. 68. PGE intended to incorrectly identify the nameplate capacity in the Draft Standard PPA for the purpose of preventing Falls Creek from entering into a PPA prior to avoided cost rates changing.

69. PGE intended to incorrectly identify the nameplate capacity in the Draft Standard PPA for the purpose of preventing Falls Creek from entering into a PPA with the correct nameplate capacity.

70.PGE's action to incorrectly identify the nameplate capacity in the DraftStandard PPA was in compliance with PGE's revised business practices to prevent QFsfrom entering into contracts.

71. If PGE did not intend to incorrectly identify the nameplate capacity in the Draft Standard PPA, then it was a mistake.

72. If Falls Creek Hydro had noticed at that time that PGE failed to use the Renewable Standard PPA form and failed to include the minimum deliveries, then Falls Creek Hydro would have also identified those as additional non-substantive changes in its July 13, 2017 correspondence.

24:73. On July 13, 2017, Falls Creek Hydro requested that PGE send an executable PPA by July 20, which was five business days from July 13, 2017. Falls Creek Hydro explained that the draft contract should have been sent on June 26, 2017, but was instead sent on July 7, 2017, which was ten business days from after its due date. Thus, Falls Creek Hydro requested that PGE subtract ten business days from PGE next maximum response time.

25:74. On July 13, 2017, Falls Creek Hydro requested that PGE skip the step of providing a final PPA and directly provide an executable PPA because there were no

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substantive changes in the draft PPA and Falls Creek Hydro's only changes were to correct ministerial errors made by PGE. The Commission's policies and rules and PGE's Schedule 201 allow a QF to move directly from draft to executable PPA.

26.75. On July 14, 2017, PGE stated that it intended to continue to follow its "regular" Schedule 201 process, which PGE characterized as responding within fifteen business days (i.e., by August 3, 2017) with either a final PPA (if any changes you request are non-substantive), a new draft PPA (if any changes you request are substantive), or a request for any additional or clarifying information that PGE requires to further process your request for a PPA.

<u>76.</u> PGE has not always followed the Schedule 201 process characterized in paragraph 75.

77. PGE only recently created the Schedule 201 process characterized in paragraph 75 in compliance with PGE's revised business practices to prevent QFs from entering into contracts.

<u>27.78.</u> On July 14, 2017, PGE did not notify Falls Creek Hydro that it intended to make its August Early Rate Effective Date Request, acknowledge that the only changes were to correct ministerial errors made by PGE or that the Commission's rules and policies and Schedule 201 allow a QF to move directly from draft to executable PPA.

28.79. On July 17, 2017, Falls Creek Hydro again requested that PGE sends Falls Creek Hydro a final, executable PPA no later than July 20, 2017 in compliance with the PGE's Commission approved Schedule 201 procedures.

29:80. On July 17, 2017, Falls Creek Hydro stated that PGE had violated Schedule 201 by sending Falls Creek a draft PPA that contained two non-substantive

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errors created by PGE, and which should not result in delaying the delivery of an executable contract to Falls Creek until PGE's QF prices fall.

<u>30.81.</u> On July 17, 2017, Falls Creek Hydro explained that the July 7, 2017 draft PPA incorrectly identified Falls Creek's generator's name plate capacity as 4.96 MW when Falls Creek correctly provided information that the generator has a nameplate capacity of 4.1 MW.

31.82. On July 17, 2017, Falls Creek Hydro explained that the Falls Creek Hydro Project is located in Linn, County, and that PGE had the correct GPS coordinates for the project as 44.396 N, -122.348, and PGE had the physical address of the project located in Cascadia, Oregon 97329, both of which are in Linn County, but the draft PPA misstated the county as Lane instead of Linn.

<u>32.83.</u> On July 17, 2017, Falls Creek Hydro explained that, if PGE had sent Falls Creek Hydro a draft contract that had correctly stated the Falls Creek nameplate and county, then Falls Creek would have approved the draft contract, and PGE would have been required to send Falls Creek an executable contract.

33.84. On July 20, 2017, Falls Creek Hydro again requested that PGE provide an executable PPA.

<u>34.85.</u> On August 3, 2017, PGE provided Falls Creek Hydro a draft final PPA-(PGE's letter is attached as Attachment I and the Final Draft PPA as Attachment J).

86. The Final Draft Standard PPA that PGE provided was a Standard Off-System Non-Variable Power Purchase Agreement instead of the Standard Renewable Off-System Non-Variable Power Purchase Agreement requested by Falls Creek Hydro (see Attachment J).

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87. The Final Draft Standard PPA did not include Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A (see Attachment J).

88. The Final Draft Standard PPA included detailed information of the Falls Creek Hydro project in Exhibit B, Description of the Sellers Facility, which appears to just be copied from the IIR form and other documents submitted by Falls Creek Hydro (see Attachment J).

89. The Final Draft Standard PPA listed "Required Facility Documents" in Exhibit C including "All required agreement to record Renewable Energy Certificates" (see Attachment J).

90. PGE intended to provide Falls Creek Hydro the Final Draft Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested.

91. If PGE did not intend to provide Falls Creek Hydro the Final Draft Standard Off-System Non-Variable PPA instead of the Standard Renewable Off-System Non-Variable PPA that Falls Creek Hydro requested, then it was a mistake.

92. PGE's failure to include Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A to the Final Draft Standard PPA was also intentional.

93. If PGE did not intend to leave out Falls Creek Hydro's minimum deliveries of 9,700,000 kWh in Exhibit A to the Final Draft Standard PPA, then it was a mistake.

94. At that time and at any time prior to filing its Complaint in this matter, Falls Creek Hydro failed to notice that the Final Draft Standard PPA was not a

Renewable Standard PPA as requested or that PGE did not specify its minimum deliveries at 9,700,000 kWh.

<u>35.95.</u> On August 3, 2017, PGE stated that the <u>final draftFinal Draft</u> PPA is a discussion draft, it is not a binding offer and PGE reserved the right to revise any of its variable terms, including the exhibits.

<u>36.96.</u> PGE has a pattern and practice of revising final draft PPAs when it provides the executable PPA, and not informing QFs that it was making the changes.
 <u>37.97.</u> On August 3, 2017, PGE stated that no binding PPA will exist between PGE and Falls Creek Hydro unless and until PGE has provided Falls Creek Hydro with

an executable Standard PPA and both Falls Creek Hydro and PGE have executed the document.

38.98. On August 3, 2017, PGE stated that Falls Creek Hydro could: 1) decide not to pursue a PPA any further; 2) propose in writing substantive changes; or 3) send PGE a written request to prepare an executable PPA without proposing any substantive changes.

<u>39.99.</u> On August 3, 2017, PGE stated that if Falls Creek Hydro requests an executable Standard PPA without proposing substantive changes to the project proposal or the variable terms of the final draft PPA, then within fifteen business days of receiving your written request, PGE will send either an executable PPA or request additional or clarifying information if PGE reasonably determines that additional information is necessary to prepare an executable PPA.

40.100. On August 3, 2017, PGE stated that once Falls Creek Hydro has received an executable PPA, Falls Creek Hydro execute it without alteration and establish a legally

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enforceable obligation, and that Falls Creek Hydro is not entitled to the current avoided cost rates until its executes the executable PPA. Therefore, PGE stated that Falls Creek could not establish a legally enforceable obligation until PGE provides an executable PPA.

41.<u>101.</u> 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.

42.102. On August 4, 2017, PGE confirmed that the usual Commission process is PGE must file to update avoided cost prices within 30 days of the Commission's IRP acknowledgement, and once PGE files, there is a 90-day review period before prices become effective.

43.<u>103.</u> 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 plan will be eligible for current avoided cost rates.

44.<u>104.</u> PGE's IRP iswas likely to be acknowledged prior to when PGE intends to provide Falls Creek Hydro an executable PPA.

45.105. PGE's August 4, 2017 statements in its IRP and its August 4, 2017 statements to Falls Creek mean that PGE intends to prevent Falls Creek Hydro from obtaining a legally enforceable obligation.

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46.106. PGE chose not to inform Falls Creek Hydro that PGE intended to make the August Early Rate Effective Date Request.

47.<u>107.</u> PGE did not inform Falls Creek Hydro that PGE intended to make the August Early Rate Effective Date Request in order to ensure that Falls Creek Hydro would not timely execute a PPA.

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

49.109. PGE's intent and purpose for requesting that QFs that have not entered into a contract or achieve a legally enforceable obligation prior to acknowledgment of the IRP not being eligible for current avoided cost rates is to prevent Falls Creek Hydro and other qualifying facilities from being able to complete and execute a PPA at current rates.

50.110. On August 4, 2017, Falls Creek Hydro stated that it accepted the final draftFinal Draft PPA that included the two ministerial changes that Falls Creek Hydro previously identified to correct PGE's errors, and requested an executable PPA.

51.<u>111.</u> On August 4, 2017, Falls Creek Hydro stated that PGE did not directly inform Falls Creek Hydro that PGE had stated on August 4, 2017 in its 2016 IRP that it would make an August Early Rate Effective Date Request.

112.If Falls Creek Hydro had noticed at that time that PGE failed to use theRenewable Standard PPA form and failed to include the minimum deliveries, then Falls

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<u>Creek Hydro would have identified those as additional non-substantive changes in its</u> <u>August 4, 2017 correspondence.</u>

52.113. Falls Creek Hydro was separately made aware PGE will not provide current rates to QFs that execute a PPA or form a LEO after the Commission acknowledges your IRP, which could occur before PGE provides an executable PPA.

53.114. PGE could have informed Falls Creek Hydro that it was going to make August Early Rate Effective Date Request.

54.<u>115.</u> On August 4, 2017, Falls Creek Hydro requested that PGE immediately: 1) confirm that it will commit to provide Falls Creek Hydro with the current prices; and 2) provide an executable PPA on Monday, August 7, 2017.

55.<u>116.</u> On August 4, 2017, Falls Creek Hydro stated that it was ready, willing, and able to sign a PPA with PGE and is unequivocally committed itself to sell the net output to PGE at the Schedule 201 avoided cost rates and standard PPA terms and conditions that are currently in effect, including Falls Creek Hydro obligating itself to provide power or be subject to penalty pursuant to the PPA terms and conditions for failing to deliver energy on the scheduled commercial on-line date.

56:117. On August 6, 2017, Falls Creek Hydro executed the last draft PPA that PGE provided.

<u>57.118.</u> On August 7, 2017, Falls Creek Hydro informed PGE that it was again committing itself to sell power to PGE under the currently effective Schedule 201 rates, and the terms and conditions of the partially executed PPA, and obligating itself to provide power or be subject to penalty for failing to deliver energy on the scheduled commercial on-line date.

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<u>119.</u> PGE was due to provide Falls Creek Hydro an executable PPA prior to PGE's avoided cost rate change effective September 18, 2017.

120.On September 1, 2017, Falls Creek Hydro submitted written comments tothe Commission Docket No. UM 1728. Re Portland General Electric Company,

Application to Update Schedule 201 Qualifying Facility Information, Docket No. UM

1728, Falls Creek Hydro's Comments (Sept. 1, 2017) (attached as Attachment K).

121. Falls Creek Hydro made oral comments at the September 12, 2018 public hearing in Docket No. UM 1728, PGE's avoided cost rate update. Oregon Public Utility Commission, Public Meeting on Sept. 12, 2017 (starting at 37:42).

122.Falls Creek Hydro's written and oral comments referred to the Falls CreekHydro project as a renewable project (see Attachment K).

<u>123.</u> At all times, Falls Creek Hydro assumed that it was receiving a Renewable Standard PPA, at the renewable rates designated in PGE's Schedule 201 tables 4a and 4b.

<u>124.</u> Based on Falls Creek Hydro's documents, correspondence, and testimony, PGE was aware that Falls Creek Hydro wanted a Renewable Standard Contract.

<u>125.</u> At all times, Falls Creek Hydro assumed that the information it provided to PGE regarding minimum deliveries was included in the PPA.

126.Based on Falls Creek Hydro's documents and correspondence, PGE wasaware that Falls Creek Hydro's minimum deliveries should be specified at 9,700,000kWh.

<u>127.</u> PGE refuses to modify the draft PPA to reflect that Falls Creek Hydro requested and PGE should have provided a Standard Renewable Off-System Non-Variable PPA. 128. PGE refuses to modify the draft PPA to reflect that Falls Creek Hydro's minimum deliveries are 9,700,000 kWh.

129. Falls Creek Hydro is continuing to move forward on its interconnection with PacifiCorp.

130. Under its interconnection agreement, Falls Creek Hydro is due to pay up

to \$1.2 million over the course of the next year.

131. If Falls Creek Hydro is not able to finalize its contract with PGE at the

pre-September 18, 2017 renewable avoided cost rates or enter into a PPA with similar

rates, then the Falls Creek Hydro facility will likely need to be decommissioned.

## VII. LEGAL CLAIMS

## **Complainant's First Claim for Relief**

Falls Creek Hydro is entitled to PGE's standard <u>renewable</u> contract with <u>eurrently</u> <u>effective the</u> Schedule 201 rates <u>effective on June 1, 2017</u> because Falls Creek Hydro legally obligated itself to sell the net output prior to the filing of this Complaint

58.132. Falls Creek Hydro re-alleges all the preceding paragraphs.

59.133. PGE has an obligation to purchase a QF's net output that is directly or

indirectly made available to PGE. 18 CFR 292.303(a)&(d), 292.304(d); ORS

758.525(2)(b), 758.535(2)(a)&3(b); OAR 860-029-0030(1).

60.134. PGE has an obligation to purchase the net output of a QF pursuant to

either a contract or a legally enforceable obligation. 18 CFR 292.304(d); Order No. 69,

FERC Stats. & Regs. ¶ 30,128, 45 Fed. Reg. 12,214 at 12,219-20, 12,224 (1980). A

legally enforceable obligation is broader than a simple contract between an electric utility

and a QF, and may exist without a written, executed contract. FLS Energy, 157 FERC

61,211 at PP 24, 26; Grouse Creek, LLC, 142 FERC ¶ 61,187 at P 38 (2013).

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**61.**<u>135.</u> The establishment of a legally enforceable obligation turns on the QF's commitment to sell its net output to the electric utility. <u>FLS Energy</u>, 157 FERC ¶ 61,211 at P 24; <u>JD Wind 1, LLC</u>, 129 FERC ¶ 61,148, at P 25 (2009). A QF can enter into a legally enforceable obligation by committing itself to sell power to an electric utility. <u>FLS Energy</u>, 157 FERC ¶ 61,211 at P 25; <u>Cedar Creek Wind, LLC</u>, 137 FERC ¶ 61,006 at PP 36, 39 (2011); <u>Snow Mountain</u>, 734 P.2d at 1371.

<u>62-136.</u> A QF can require a utility to purchase its net output, even if the utility has refused to enter into a contract. <u>Id.</u> at 1370-71; <u>FLS Energy</u>, 157 FERC ¶ 61,211 at P 24; <u>Murphy Flat Power</u>, 141 FERC ¶ 61,145 at P 24 (2012); <u>Grouse Creek</u>, 142 FERC ¶ 61,187 at P 38. A utility cannot refuse to sign a contract "so that a later and lower avoided cost is applicable." <u>FLS Energy</u>, 157 FERC ¶ 61,211 at P 25; <u>Cedar Creek</u> Wind, 137 FERC ¶ 61,006 at P 36. Similarly, a QF cannot be required to tender an executed interconnection agreement to form a legally enforceable obligation because that 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.

**63.**<u>137.</u> The Commission has confirmed the process for obtaining a PPA includes: "(1) a QF initiates the process by submitting certain information, the utilities then have 15 days to provide a draft standard contract; (2) the QF may agree to the terms of the draft contract and ask the utility to provide a final executable contract, or suggest changes; (3) the utility provides iterations of the draft standard contract no later than 15 days after each round of comments by the negotiating QF; and (4) when the QF indicates that it agrees to all the terms in the draft contract, the utility has 15 days to forward a final executable contract to the QF." <u>Re Investigation Into QF Contracting and Pricing</u>,

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Docket No. UM 1610, Order No. 16-174 at 24 (May 13, 2016). Thus, when the QF informs PGE that it has agreed to all terms and conditions in the draft PPA, then PGE is required to provide an executable PPA to the QF.

The Commission has determined that a legally enforceable obligation will be established "once a QF signs the final draft of an executable contract provided by a utility to commit itself to sell power to the utility." <u>Re Investigation Into QF Contracting</u> and Pricing, Docket No. UM 1610, Order No. 16-174 at 3, 27-28 (May 13, 2016). However, a legally enforceable obligation "may be established earlier if a QF demonstrates delay or obstruction of progress towards a final draft of an executable contract, such as a failure by a utility to provide a QF with required information or documents on a timely basis." <u>Id.</u>

65.139. 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 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).

<u>66.140.</u> FERC has found that legally enforceable obligations have been created in about one month. <u>Rainbow Ranch Wind</u>, LLC, 139 FERC ¶ 61,077 at PP 2-5, 24 (2012); <u>Grouse Creek Wind Park, LLC</u>, 142 FERC ¶ 61,187, at PP 37-43 (2013).

 141.
 Falls Creek Hydro has the option to select either a renewable or a non 

 renewable avoided cost rate.

**67.142.** Falls Creek Hydro has repeatedly committed itself to sell power to PGE under the currently effective Schedule 201 renewable rates effective on June 1, 2017, and the terms and conditions of the draft  $PPA_{\overline{7}}$  (with the changes noted in paragraph 143).

including to provide power or be subject to penalty for failing to deliver on the scheduled commercial on-line date. These commitments include but are not limited to Falls Creek Hydro's request for an executable PPA on June 13, July 7, July 26, and August 2, 2017, Falls Creek Hydro's demand letter sent on August 2, 2017, and Falls Creek Hydro's execution of the draft PPA on August 6, 2017.

<u>143.</u> The terms and conditions of Falls Creek Hydro's legally enforceable obligation are as designated in the draft PPA, except that Falls Creek Hydro's minimum deliveries should be specified as 9,700,000 kWh in Exhibit A to the PPA, the terms should conform to the terms of the Standard Renewable Off-System Non-Variable Power Purchase Agreement instead of the Standard Off-System Non-Variable Power Purchase Agreement, and Exhibit B should include only the minimum description of seller's facility.

**68.144**. Falls Creek Hydro has continued to commit, and is still committing, itself to sell the net output of the Falls Creek Hydro Project to PGE at the Schedule 201 rates, terms, and conditions in the partially executed final PPA.

 69.145.
 PGE is required to purchase the net output of the Falls Creek Hydro

 Project at the Schedule 201 rates, in tables 4a and 4b, and the terms, and conditions in

 the partially executed final PPA, modified to account for the changes (as indicated in

 paragraph 143), despite PGE's refusal to execute the partially executed final PPA.

 70.146.
 Falls Creek Hydro's execution of the draft PPA, continuing commitment

 to sell the net output of the Falls Creek Hydro Project, and efforts to obtain PGE's

 execution of the partially executed final PPA establish a legally enforceable obligation at

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the currently effective Schedule 201 rates, and all the terms and conditions in the partially executed final PPA.

## **Complainant's Second Claim for Relief**

Falls Creek Hydro is entitled to PGE's standard <u>renewable</u> contract with <u>eurrently</u> <u>effective the</u> Schedule 201 rates <u>effective on June 1, 2017</u> because Falls Creek Hydro 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

71.<u>147.</u> Falls Creek Hydro re-alleges all the preceding paragraphs.

72-148. The Commission has established rules, policies, standard contracts, and rate schedules to facilitate and direct the process by which a QF and an Oregon electric utility enter into a contract. <u>Re Investigation Relating to Electric Utility Purchases from QFs</u>, Docket No. UM 1129, Order No. 05-584 at 6-12, 16 (May 13, 2005). The purpose of the Commission approving standard contacts and schedules for each utility is to pre-establish "rates, terms and conditions that an eligible QF can elect without any negotiation with the purchasing utility" and to "eliminate negotiations . . . ." <u>Id.</u> at 12, 16. 73-149. PGE's PURPA purchase obligation applies to any QF delivering power to PGE, whether the power is delivered directly or indirectly to PGE. 18 CFR 292.303(a)&(d). As FERC has stated, these "regulations require the electric utility's [PURPA] purchase obligation to be applied to both off-system as well as on-system QFs on a comparable basis." <u>PáTu Wind Farm, LLC v. Portland General Electric Co.</u>, 151 FERC ¶ 61,223 at P 46 (2015).

74.150. "A utility is obligated under PURPA to purchase the output of a QF as long as the QF can deliver its power to the utility." <u>Kootenai Elec. Coop., Inc.</u>, 143 FERC ¶ 61,232 at P 33 (2013) <u>reh'g denied</u> 145 FERC 61,229 at P 15 (2013). The QF has the discretion to choose to sell to a more distant utility that it is not interconnected with "as long as the QF can deliver its power to the utility." <u>Id.</u> A QF can sell its net output at the Commission-approved avoided cost rates by delivering such output at the point where its transmission provider and its purchasing utility's transmission systems interconnect. <u>Id.</u>

PGE's failure to abide by the terms of PURPA, the Commission's rules and policies, FERC's rules and policies, and/or Schedule 201 can result in the creation of a legally enforceable obligation. <u>Re Investigation Into QF Contracting and Pricing</u>, Docket No. UM 1610, Order No. 16-174 at 3, 27-28 (May 13, 2016); <u>Snow Mountain</u>, 734 P.2d at 1371; <u>International Paper v. PacifiCorp</u>, Docket No. UM 1449, Order No. 09-439 at 6 (Nov 4, 2009).

76:<u>152.</u> The Commission's polices include that, "when the QF indicates that it agrees to all the terms in the draft contract, the utility has 15 days to forward a final executable contract to the QF." <u>Re Investigation Into QF Contracting and Pricing</u>, Docket No. UM 1610, Order No. 16-174 at 24 (May 13, 2016).

PGE's Schedule 201 includes timelines and requirements that a utility should follow when entering into a PPA with a QF 10 MWs and under. Schedule 201 provides that: "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."

78.<u>154.</u> The Commission's rules and policies prevent a utility from delaying or obstructing "progress towards a final draft of executable contract". <u>Re Investigation Into</u> <u>QF Contracting and Pricing</u>, Docket No. UM 1610, Order No. 16-174 at 27-28 (May 13, 2016).

#### PAGE 29—<u>FIRST AMENDED</u> COMPLAINT

79.155. By no later than July 20, 2017, Falls Creek Hydro and PGE had agreed to all terms and conditions, and Falls Creek Hydro requested executed a final executable version of the PPA.

80.156. PGE did not provide and has not provided a final executable version of the PPA.

PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it refused to provide a draft PPA until Falls Creek Hydro identified "BPAT.PGE" as POD. PGE should have identified any concerns regarding the POD, but it should also have provided a draft PPA. There is no provision in the standard PPA which lists the POD, Schedule 201 requires transmission arrangements to be identified prior to PPA execution and not prior to providing a draft PPA, and there is no reason why a complete draft PPA could not have been provided with PGE's request to identify a different POD.

82.158. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it refused to provide a draft PPA until Falls Creek Hydro identified "BPAT.PGE" as POD. PODs have not historically been listed in PGE's PPAs, and a QF can change its POD over the course of its PPA depending on available transmission.

83.159. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it refused to notify Falls Creek Hydro that it planned to make August Early Rate Effective Date Request with the intention to prevent Falls Creek Hydro from timely executing a PPA, despite Falls Creek Hydro's request that PGE inform it of any such request.

#### PAGE 30—<u>FIRST AMENDED</u> COMPLAINT

PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it stated that no binding PPA will exist between PGE and Falls Creek Hydro unless and until PGE has provided Falls Creek Hydro with an executable PPA.

PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it stated that no binding PPA will exist between PGE and Falls Creek Hydro unless Falls Creek Hydro and PGE both have executed the PPA. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it delayed and obstructed progress toward executing a PPA.

<u>163.</u> PGE delayed and obstructed progress towards an executable PPA by intentionally providing Falls Creek Hydro a Non-Renewable draft Standard PPA instead of the Renewable Standard PPA.

<u>164.</u> PGE delayed and obstructed progress towards an executable PPA by refusing to modify the draft standard PPA to the Renewable Standard PPA terms.

165. PGE delayed and obstructed progress towards an executable PPA by intentionally omitting Falls Creek Hydro's minimum deliveries from the draft PPAs.

166.PGE delayed and obstructed progress towards an executable PPA byrefusing to modify the draft PPA to reflect the fact that Falls Creek Hydro indicated itsminimum deliveries in its PPA request.

<u>167.</u> PGE is not permitted to require additional information in a Standard PPA then what the Commission has approved. <u>168.</u> PGE delayed and obstructed progress towards an executable PPA by including detailed information of the Falls Creek Hydro project in Exhibit B, Description of the Sellers Facility.

169. PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 by including detailed information of the Falls Creek Hydro project in Exhibit B, Description of the Sellers Facility.

<u>170.</u> PGE delayed and obstructed progress towards an executable PPA by incorrectly identifying the county as Lane instead of Linn.

<u>171.</u> PGE delayed and obstructed progress towards an executable PPA by incorrectly identifying the nameplate capacity as 4.96 MW instead of 4.1 MW.

PGE violated the Commission's rules and policies, FERC's rules and policies, and Schedule 201 when it refused to provide an executable PPA or to execute the draft PPA.

<u>173.</u> PGE's violations of the Commission's rules and policies, FERC's rules and policies, and Schedule 201, and Falls Creek Hydro's execution of the final PPA, continuing commitment to sell the net output of the Falls Creek Hydro Project, and efforts to obtain PGE's signature resulted in a legally enforceable obligation at the currently effective Schedule 201 rates, and all the terms and conditions in the partially executed final PPA.

## **Complainant's Third Claim for Relief**

Falls Creek Hydro is entitled to PGE's standard <u>renewable</u> contract with <u>eurrently</u> <u>effective the</u> Schedule 201 rates <u>effective on June 1, 2017</u> because Falls Creek Hydro 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 by attempt to commit regulatory fraud **88.174**. Falls Creek Hydro re-alleges all the preceding paragraphs.

<u>89.175.</u> The elements of fraud include: 1) a representation; 2) its falsity; 3) its materiality; 4) the speaker's knowledge of the representation or ignorance of its truth; 5) intent the representation be acted in a manner reasonably contemplated; 6) the hearer's ignorance of the falsity of the representation; 7) the hearer's reliance upon its truth; 8) the hearer' right to rely on the representation; and 9) damage.

90.176. PGE represented that Falls Creek Hydro could not request an executable PPA unless requested a final PPA.

<u>91.177.</u> PGE represented that PGE might provide an executable PPA to form a legally enforceable obligation.

<u>92.178.</u> PGE represented that no binding PPA will exist between PGE and Falls Creek Hydro unless and until PGE has provided Falls Creek Hydro with an executable Standard PPA and both Falls Creek Hydro and PGE have executed the document.

93.<u>179.</u> PGE represented that it could provide an executable PPA to Falls Creek Hydro, when it fact PGE was intending not to provide an executable PPA to Falls Creek Hydro.

94.180. Each of the representations in paragraphs 91-94176-179 are false.

95.181. Each of the representations in paragraphs 91-94176-179 are material.

96.182. PGE was aware that each of the representations in paragraphs 91-94176-179 were false.

97.183. PGE's intent in making the representations in paragraphs 91-94176-179 were than Falls Creek Hydro would act in reliance upon them.

#### PAGE 33—<u>FIRST AMENDED</u> COMPLAINT

98.184. Falls Creek Hydro was ignorant of the falsity of the representations in paragraphs 91-94176-179 when they were made.

99.185. Falls Creek Hydro would have relied upon the falsity of the

representations in paragraphs <u>91-94176-179</u> if it had not been contacted by counsel.

**100.186**. Falls Creek Hydro has the right to rely upon PGE making truthful representations.

**101.187**. Falls Creek Hydro would have suffered damages if it had not been informed that PGE's representations were false.

PGE's attempt to commit regulatory fraud, and violations of the Commission's rules and policies, FERC's rules and policies, and Schedule 201, and Falls Creek Hydro's execution of the final PPA, continuing commitment to sell the net output of the Falls Creek Hydro Project, and efforts to obtain PGE's signature resulted in a legally enforceable obligation at the currently effective Schedule 201 rates, and all the terms and conditions in the partially executed final PPA.

# **Complainant's Fourth and Alternative Claim for Relief**

Falls Creek Hydro is entitled to PGE's standard renewable contract with the Schedule 201 rates effective on June 1, 2017 and including its minimum deliveries because Falls Creek Hydro legally obligated itself to sell the net output prior to the filing of this Complaint and the errors in drafting the PPA were due to mutual mistake.

189. Falls Creek Hydro re-alleges all the preceding paragraphs.

190. PGE and Falls Creek Hydro intended to negotiate a Standard Renewable

Off-System Non-Variable Power Purchase Agreement.

191. PGE and Falls Creek Hydro intended to include Falls Creek Hydro's

minimum deliveries of 9,700,000 kWh in the PPA.

<u>192.</u> PGE failed to provide a draft, final, or executable PPA in the Standard Renewable Off-System Non-Variable Power Purchase Agreement form.

<u>193.</u> PGE failed to include Falls Creek Hydro's minimum deliveries of <u>9,700,000 kWh in the PPA.</u>

<u>194.</u> Falls Creek Hydro failed to notice and request that PGE correct the errors in paragraphs 192 and 193.

<u>195.</u> PGE and Falls Creek Hydro made a mutual mistake in failing to use the Standard Renewable Off-System Non-Variable Power Purchase Agreement and failing to include the minimum deliveries of 9,700,000 kWh.

196.The PPA should be reformed to include the terms of the StandardRenewable Off-System Non-Variable Power Purchase Agreement and the minimumdeliveries of 9,700,000 kWh.

## VIII. PRAYER FOR RELIEF

WHEREFORE, Falls Creek Hydro respectfully requests the Commission issue an order:

- Finding PGE in violation of: 1) the mandatory purchase obligation of the Oregon PURPA; 2) the mandatory purchase obligation of the federal PURPA; 3) FERC's PURPA regulations, policies, and orders; 4) the Commission's PURPA regulations, policies, and orders; and 5) PGE's Schedule 201;
- 2. Requiring PGE to purchase the net output of the Falls Creek Hydro Project at the currently effective\_Schedule 201 rates effective on June 1, 2017, and all the terms and conditions in the partially executed final PPA\_modified to include Falls Creek

Hydro's minimum deliveries, the terms of the Renewable Standard PPA, and only the minimum required information in Exhibit B;

- Requiring PGE to enter into a PURPA PPA with Falls Creek Hydro at the currently effective Schedule 201 rates effective on June 1, 2017, and all the terms and conditions in the partially executed final PPA modified to include Falls Creek Hydro's minimum deliveries, the terms of the Renewable Standard PPA, and only the minimum required information in Exhibit B;
- Instituting penalties up to \$10,000 pursuant to ORS 756.990 against PGE and paid by PGE's shareholders for each violation of ORS 758.525(2), 758.535(2)(b), 18 CFR 292.303(a), 292.304(d), and Commission Order Nos. 05-584 and 16-174.
- 5. Granting any other such relief as the Commission deems necessary.

Dated this 7th6th day of August, 2017April 2018.

Respectfully submitted,

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

Of Attorneys for Falls Creek Hydro

#### **CERTIFICATE OF FILING**

I certify that on <u>August 7, 2017April 6th, 2018</u>, I filed the foregoing Complaint on behalf of Falls Creek Hydro with the Oregon Public Utility Commission by electronic communication as consistent with OAR 860-001-0170.

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

Attachment A

# Falls Creek Hydro Project, L.P.

January 5, 2017

Shawn P Davis Portland General Electric 121 SW Salmon St. 3WTC0306 Portland, Oregon 97204

RE: PPA with PGE Start date: January 1, 2018 or January 1, 2020 PDF Sent via email and USPS mail

Dear Shawn,

Thank you for talking to me today and explaining the PGE application process for acquiring energy and capacity from a 201 Qualifying Facility.

My name is Gary Marcus and I own the Falls Creek Hydroelectric Project that has been selling its power to PacifiCorp since December 31, 1984. We would like to sell our power in the future to PGE under a PPA beginning as early as January 1, 2018, and no later than January 1, 2020. Here is some information about Falls Creek in tabular form:

| Name:                  | Falls Creek H.P. Limited Partnership                         |
|------------------------|--|
| FERC Exemption Number: | 6661   |
| Location:              | Hwy 20, mile 47, just south of Trout Creek Campground        |
|                        | 20 miles east of Sweet Home, 10 miles east of Cascadia       |
| State, County:         | OR, Linn   |
| USGS Quad:             | Cascadia, OR   |
| Latitude:              | 44.3801  |
| Longitude:             | 122.3511   |
|                        |  |
| Commercial Op. Date:   | December 21, 1984  |
| Contract Ends:         | December 31, 2019  |
| Optional Contract End: | December 31, 2017  |
|                        |  |
| Business Address:      | Gary Marcus or Diane Moore, Falls Creek HP LP, PO Box 23508, |
|                        | Eugene, OR 97401   |
| Phone:                 | 541-683-5200   |
| Mobile                 | 541-953-2725   |
| FAX:                   | 541-935-5122   |
| Emails:                | garymarcus1@aol.com  |
|                        | DMoore@frontier-technology.com                               |
|                        |  |

Mr. Shawn David PGE PPA Request January 5, 2017 Page 2

#### **Plant Characteristics**

| Turbine:<br>Max Installed Capacity:<br>Min Installed Capacity:<br>Average Annual Production:<br>Plant Availability:<br>Transmission Availability: | Pelton Wheel single wheel, dual nozzles<br>4,960 kW<br>150 kW<br>15,500 MWH<br>99.4%<br>98%   |
|---|---|
| Interconnection and Trans   | mission   |
| Interconnection:<br>Wheeling:   | PacifiCorp's 20.8 KV Foster Feeder; distribution line<br>Through PacifiCorp directly to PGE in mid-Willamette Valley  |
| Awards and Attributes   |   |
| Award:<br>LIHI:<br>RECs:  | 1986 Oregon Governor's Energy Award<br>First Oregon Project to obtain Low Impact Hydropower Institute<br>Certification. Fourth project in the USA to be LIHI certified<br>RECs qualify for Oregon and California RPS  |
| Other   |   |
| Cathodic Protection:  | The 8,000 foot steel penstock is wrapped externally, coated internally and has cathodic protection. These protect the penstock from external and internal corrosion. The penstock can last another 75 years.  |
| Maintenance:<br>Spare parts:<br>Permits:<br>Video:<br>Website:  | Meticulously maintained with extensive records<br>Extensive. Including spare turbine runner.<br>All permits are up to date and renewable<br>Construction video available<br>LIHI certification website:<br><u>http://lowimpacthydro.org/lihi-certificate-4-falls-creek-<br/>hydroelectric-project-oregon-ferc-6661/</u> |

Thank you for considering offering the Falls Creek Project a 201 Qualifying Facility PPA with a start date that could be as early as January 1, 2018, and as late as January 1, 2020.

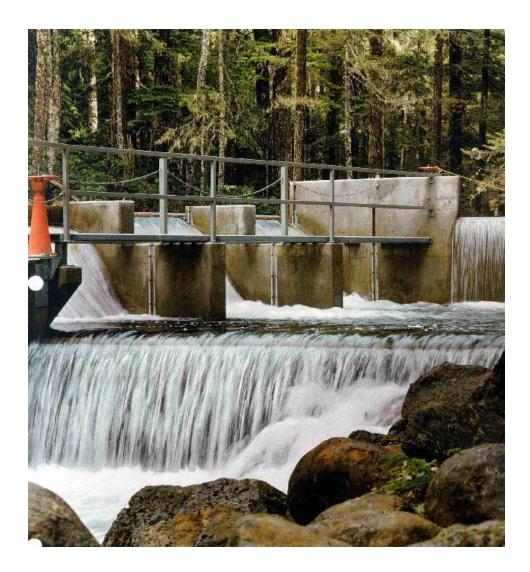
I look forward to working with you and PGE towards a successful interconnection and power

delivery. Best regards

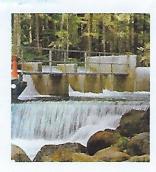
Gary P. Marcus <sup>9</sup> General Partner, Falls Creek HP LP Attachment B

## Falls Creek HP, Limited Partnership Application to Portland General Electric For a

### Standard Renewable Off-System Non-Variable PPA



May 31, 2017



Falls Creek Hydro Application to PGE for a Renewable PPA

Exihibits 1 to 10

| 1  | Introduction and<br>Summary of Exhibits  |
|----|--|
| 2  | 1. Draft Standard Renewable<br>Off-System Non-Variable PPA                     |
| 3  | 2. Status of Incorporation of Falls Creek H P, Limited Partnership             |
| 4  | 3. Financial Statements of<br>Falls Creek H P, LP                              |
| 5  | 4. Site Control<br>Forest Service Special Use Permit<br>Property Tax Statement |
| 6  | 5. FERC Exemption<br>and Recertification                                       |
| 7  | 6. Map of Site<br>7. No Adjoining QF Sites                                     |
| 8  | 8. Monthly Output / Daily<br>Profile of Generation                             |
| 9  | 9. Description of Equipment  |
| 10 | 10. Credit Reports of Seller or<br>Owner                                       |



June 5, 2017

Shawn P Davis Portland General Electric 121 SW Salmon St. 3WTC0306 Portland, Oregon 97204

RE: PPA with PGE Start date: January 1, 2018 or January 1, 2020

Dear Shawn,

The Falls Creek Hydroelectric Project is pleased to offer its power to PGE pursuant to PGE's "Standard Renewable Off-System Non-Variable Power Purchase Agreement" with Schedule 201 Pricing Options for Standard PPA, Renewable Fixed Price Option, effective May 17, 2017.

Thank you for taking the time to talk to me in January and inform me of the data necessary for this application. I have organized the data in the accompanying notebook. I hope this organization will facilitate your reading the material and also help others in your team. Along those lines I have also included a flash drive with electronic copies of everything in the notebook.

The notebook also contains a DVD that I produced about the small hydro industry in 1984. It is 30 minutes long with a 10 minute introduction on the evolution of hydro and PURPA, a ten minute section on the permitting and construction of Falls Creek, and a 10 minute section on what was then the future economics and viability of small hydro. I hope you have an opportunity to watch it, because it will give you a more complete understanding of Falls Creek, and help you process all the information in this notebook.

Section 0.1 of this notebook contains my January 5, 2017 letter to you summarizing the Falls Creek Project, and then summarizes the contents of each exhibit in this notebook. That introductory section is intended to give you an overview of the Falls Creek Project and to serve as a quick reference to specific datum.

I look forward to working with you and your team at PGE. Please email me at <u>carymarces (classicon</u> to let me know you have received this notebook. I am available any time via email or my/cell phone 541-953-2725. Thank you for considering this application.

Sincerely

Garý P. Marcus President, Frontier Technology, Inc. General Partner, Falls Creek H.P. Limited Partnership

CC: Mr. Irion Sanger Sanger Law, PC 382 Valiey River Drive, Suite 290 < Eugene, Orogon 87401-2148 < (541) 683-5200 < Fax (541) 484-1716 Attachment C

#### STANDARD RENEWABLE OFF-SYSTEM NON-VARIABLE POWER PURCHASE

#### AGREEMENT

THIS AGREEMENT is between Falls Creek HP, Limited Partnership

("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 Hydroelectic

 facility for the generation of electric power located in Linn

 County, Oregon
 with a Nameplate Capacity Rating of 4,100

 kilowatt ("kW"), as further described in Exhibit B ("Facility"); and (As bullt 4,900)

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 1.19, below, from the Facility in accordance with the terms and conditions of this Agreement.

#### AGREEMENT

NOW, THEREFORE, the Parties mutually agree as follows:

#### SECTION 1: DEFINITIONS

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

1.1. "As-built Supplement" means the supplement to Exhibit B provided by Seller in accordance with Section 4.4 following completion of construction of the Facility, describing the Facility as actually built.

1.2. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.

1.3. "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.

1.4. "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:

1.4.1. (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 amounts required by this

Agreement and in accordance with all other terms and conditions of this Agreement (certifications required under this Section 1.4 can be provided by one or more LPEs);

1.4.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.29;

1.4.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the operation of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;

1.4.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;

1.4.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;

1.4.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.

1.5. "Contract Price" means the applicable price, including on-peak and offpeak prices, as specified in the Schedule.

1.6. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final contract year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.

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

1.8. "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.

#### 1.9. "Facility" has the meaning set forth in the Recitals.

1.10. "Forward Replacement Price" means the price at which PGE, acting in a commercially reasonable manner, purchases for delivery at the Point of Delivery a replacement for any Net Output that Seller is required to deliver under this Agreement plus (i) costs reasonably incurred by PGE in purchasing such replacement Net Output, and (ii) additional transmission charges, if any, reasonably incurred by PGE in causing replacement energy to be delivered to the Point of Delivery. If PGE elects not to make such a purchase, costs of purchasing replacement Net Output shall be Mid-C Index Price for such energy not delivered, plus any additional cost or expense incurred as a result of Seller's failure to deliver, as determined by PGE in a commercially reasonable manner (but not including any penalties, ratcheted demand or similar charges).

1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with <u>PacifiCorp and PGE</u> electric system.

1.12. "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.

1.13. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.

1.14. "Lost Energy Value" means for a Contract Year: zero plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery, unless the Contract Year's Net Output is less than the Minimum Net Output and the Contract Year's time-weighted average of the Mid-C Index Price for On-Peak and Off-Peak Hours is greater than the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours for that Contract Year, in which case Lost Energy Value equals: (Minimum Net Output - Net Output for the Contract Year) X (the lower of: the time-weighted average of the Contract Year) and Off-Peak Hours; or the time-weighted average of the Mid-C Index Price for On-Peak and Off-Peak Hours – the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours – the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours) minus Transmission Curtailment Replacement Energy Cost, if any, for like period plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery.

1.15. "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.

1.16. "Minimum Net Output" shall have the meaning provided in Section 4.2 of this Agreement.

1.17. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.

1.18. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.

1.19. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.

1.20. "Off-Peak Hours" has the meaning provided in the Schedule.

1.21. "On-Peak Hours" has the meaning provided in the Schedule.

1.22. "Point of Delivery" means the PGE System.

1.23. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.

1.24. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.

1.25. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit C.

1.26. "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.

1.27. "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 E, the terms of which are hereby incorporated by reference.

1.28. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.

1.29. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit D.

1.30. "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.

1.31. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.

1.32. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.

1.33. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.

1.34. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).

1.35. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the difference between Dow Jones Mid C Index Price – Contract Price X curtailed energy for periods of Transmission Curtailment.

1.36. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.

1.37. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of Delivery for a term not less than the Term of this Agreement.

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

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

2.1. This Agreement shall become effective upon execution by both Parties ("Effective Date").

2.2. Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,

2.2.1. By \_\_\_\_\_ [*date to be determined by the Seller*] Seller shall begin initial deliveries of Net Output; and

2.2.2. By \_\_\_\_\_ [*date to be determined by the Seller subject to Section 2.2.3 below*] Seller shall have completed all requirements under Section 1.4 and shall have established the Commercial Operation Date.

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

2.3. This Agreement shall terminate on \_\_\_\_\_, \_\_\_ [*date to be chosen by Seller*], or the date the Agreement is terminated in accordance with Section 8 or 11.2, whichever is earlier ("Termination Date").

#### SECTION 3: REPRESENTATIONS AND WARRANTIES

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

3.1.1. Seller warrants it is a Limited Partnership duly organized under the laws of Oregon

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 4,920 kW.

3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is <u>15,400</u> kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.

3.1.10. Seller will schedule and deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of 20,500 kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.

3.1.11. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.

3.1.12. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.

3.1.13. Seller warrants that the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule and Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Renewable Rates and Standard Renewable PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.

3.1.14. Seller warrants that it will comply with all requirements necessary for all Transferred RECs (as defined in Section 4.6) associated with Net Output to be issued, monitored, accounted for, and transferred by and through the Western Renewable Energy Generation System consistent with the provisions of OAR 330-160-0005 through OAR 330-160-0050. PGE warrants that it will reasonably cooperate in Seller's efforts to meet such requirements, including, for example serving as the qualified reporting entity for the Facility if the Facility is located in PGE's balancing authority.

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

4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output from the Facility. Seller's Net Output shall be scheduled and delivered to PGE at the Point of Delivery in accordance with Section 4.5. PGE shall pay Seller the Contract Price for all scheduled and delivered Net Output.

4.2. Seller shall schedule and deliver to PGE from the Facility for each Contract Year Net Output equal to or greater than the Minimum Net Output (either (a) if Seller does not select the Alternative Minimum Amount as defined in Exhibit A of this Agreement, a minimum of seventy-five percent (75%) of its average annual Net Output or (b) if selected by Seller, the Alternative Minimum Amount), provided that such Minimum Net Output for the final Contract Year shall be reduced pro rata to reflect the Commercial Operation Date, and further provided that such Minimum Net Output shall be reduced on a pro-rata basis for any periods during a Contract Year that the Facility was prevented from generating electricity for reasons of Force Majeure.

4.3. Seller agrees that if Seller does not deliver the Minimum Net Output each Contract Year for reasons other than Transmission Curtailment, PGE will suffer losses equal to the Lost Energy Value. As damages for Seller's failure to deliver the Minimum Net Output (subject to adjustment for reasons of Force Majeure as provided in Section 4.2) in any Contract Year, notwithstanding any other provision of this Agreement the purchase price payable by PGE for future deliveries shall be reduced until Lost Energy Value is recovered. PGE and Seller shall work together in good faith to establish the period, in monthly amounts, of such reduction so as to avoid Seller's default on its commercial or financing agreements necessary for its continued operation of the Facility for QF Facilities sized at 100 kW or smaller, the provisions of this section shall not apply.

4.4. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit B or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.10 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with 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 of the Facility to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.

4.5. Seller shall provide preschedules for all deliveries of energy hereunder, including identification of receiving and generating control areas, by 9:00:00 PPT on the last business day prior to the scheduled date of delivery. All energy shall be scheduled according to the most current North America Energy Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) scheduling rules and practices. The respective representatives shall maintain hourly real-time schedule Parties' 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 customer WECC scheduling practices. Seller shall make commercially reasonable efforts to schedule in any hour an amount equal to its expected Net Output for such hour. Seller shall maintain a minimum of two years records of Net Output and shall agree to allow PGE to have access to such records and to imbalance information kept by the Transmission Provider.

From the start of the Renewable Resource Deficiency Period through the 4.6. remainder of the Term of this Agreement, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

#### SECTION 5: OPERATION AND CONTROL

5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility or transmission to PGE's electric system is curtailed, disconnected, suspended or interrupted, in whole or in part. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason

of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.

5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.

5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance that could affect the generation, scheduling or delivery of energy to PGE, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

#### SECTION 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 ten (10) days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Minimum Net Output / 8760). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

#### SECTION 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.

7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

#### SECTION 8: DEFAULT, REMEDIES AND TERMINATION

8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:

8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.

8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within ten (10) days of notice.

8.1.3. Seller's failure to deliver the Minimum Net Output for two consecutive Contract Years.

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, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party, and, except for damages related to a default pursuant to Section 8.1.3, by a QF sized at 100 kW or smaller, may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. Such termination shall be effective upon the date of delivery of notice, as provided in Section 20.1. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.

8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.

8.5. If this Agreement is terminated as a result of Seller's default, Seller shall pay PGE the positive difference, if any, obtained by subtracting the Contract Price from the sum of the Forward Replacement Price for the Minimum Net Output that Seller was otherwise obligated to provide for a period of twenty-four (24) months from the date of termination plus any cost incurred for transmission purchased by PGE to deliver the replacement power to the Point of Delivery and the estimated administrative cost to the utility to acquire replacement power. Accounts owed by Seller pursuant to this paragraph shall be due within five (5) business days after any invoice from PGE for the same.

8.6. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this

Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.

8.7. Sections 8.1, 8.4, 8.5, 8.6, 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 Sections 4.5 of this Agreement.

9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.5 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

#### SECTION 10: INDEMNIFICATION AND LIABILITY

10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.

10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.

10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this

Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.

10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

#### SECTION 11: INSURANCE

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.

11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified

or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

#### SECTION 12: FORCE MAJEURE

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

12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:

12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and

12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and

12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.

12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.

12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

#### SECTION 13: SEVERAL OBLIGATIONS

Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty,

obligation or liability between the Parties. If Seller includes two or more parties, each such party shall be jointly and severally liable for Seller's obligations under this Agreement.

#### SECTION 14: CHOICE OF LAW

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

#### SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

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

In the event the Public Utility Regulatory Policies Act (PURPA) is repealed, this Agreement shall not terminate prior to the Termination Date, unless such termination is mandated by state of 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:       | Diane Moore - Office Administrator   |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|
|                  | Falls Creek HP, Limited Partnership  |  |  |  |  |  |  |
| Mailing Address  | PO Box 23508   |  |  |  |  |  |  |
|                  | Eugene, OR 97402   |  |  |  |  |  |  |
|                  |  |  |  |  |  |  |  |
| with a copy to:  | Diane Moore - Office Administrator   |  |  |  |  |  |  |
|                  | Falls Creek HP, Limited Partnership  |  |  |  |  |  |  |
| Physical Address | 23858 Butler Road  |  |  |  |  |  |  |
|                  | Elmira, OR 97437   |  |  |  |  |  |  |
| To PGE:          | Contracts Manager<br>QF Contracts, 3WTC0306<br>PGE - 121 SW Salmon St.<br>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.

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| | |

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:  |  |

Falls Creek HP, Limited Partnership (Name Seller)

By: \_\_\_\_\_ Name: \_\_Gary P. Marcus

Title: Frontier Technology, Inc. President, General Partner Date: \_\_\_\_\_

#### EXHIBIT A MINIMUM NET OUTPUT

In this Exhibit, Seller may designate an alternative Minimum Net Output to seventy-five (75%) percent of annual average Net Output specified in Section 3.1.9 of the Agreement ("Alternative Minimum Amount"). Such Alternative Minimum Amount, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of the Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.

See attached graph. Over the years the equipment and our operation have become more efficient.So our average annual output is about 500,000 kWh higher today then when the plant was commissioned in 1984.

The current net average output after 3% line loses is about 15,400,000 kWh. The minimum we have produced with the current equipment configuration was about 9,700,000 in 1992. The maxium was about 19,550,000 in 2012.

#### EXHIBIT B DESCRIPTION OF SELLER'S FACILITY

#### [Seller to Complete]

See Attached Description

#### EXHIBIT C REQUIRED FACILITY DOCUMENTS

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

Sellers Generation Interconnection Agreement with interconnecting utility

Firm Transmission Agreement between Seller and Transmission Provider

See attached list

#### EXHIBIT D START-UP TESTING

#### [Seller identify appropriate tests]

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

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

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

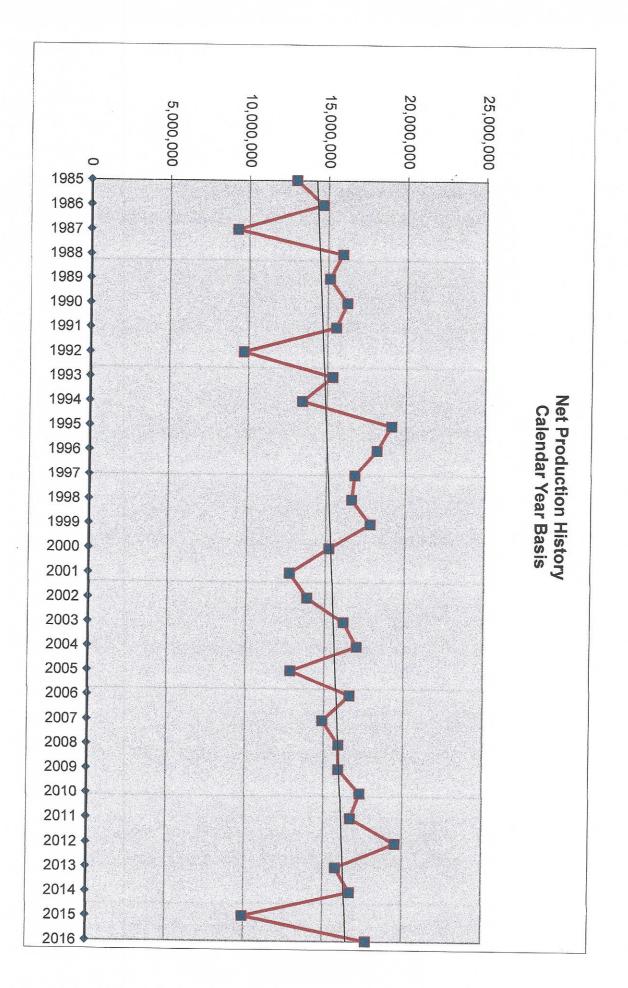
- 1. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 2. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs;
- 3. Brake tests;
- 4. Energization of transformers;
- 5. Synchronizing tests (manual and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

#### EXHIBIT E SCHEDULE

#### [Attach currently in-effect Schedule 201]

See Attached Schedule dated May 17, 2017

Attachment D



#### SCHEDULE 201 (Continued)

#### PRICING OPTIONS FOR STANDARD PPA (Continued)

#### Renewable Fixed Price Option (Continued)

|   | TABLE 4a |        |        |        |        |        |        |        |        |        |        |        |
|---|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Renewable Avoided Costs                       |          |        |        |        |        |        |        |        |        |        |        |        |
| Renewable Fixed Price Option for Base Load QF |          |        |        |        |        |        |        |        |        |        |        |        |
| On-Peak Forecast (\$/MWH)                     |          |        |        |        |        |        |        |        |        |        |        |        |
|   |          |        |        |        |        |        |        |        |        |        |        |        |
| Year  | Jan      | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
| 2017  | 31.96    | 31.36  | 28.35  | 20.22  | 19.46  | 19.46  | 28.41  | 31.65  | 29.07  | 25.89  | 28.79  | 32.21  |
| 2018  | 32.63    | 32.02  | 28.95  | 20.66  | 19.89  | 19.89  | 29.01  | 32.31  | 29.68  | 26.44  | 29.40  | 32.88  |
| 2019  | 35.13    | 34.47  | 31.16  | 22.21  | 21.38  | 21.38  | 31.23  | 34.79  | 31.95  | 28.45  | 31.65  | 35.41  |
| 2020  | 105.59   | 105.58 | 104.91 | 105.31 | 108.12 | 107.33 | 107.05 | 106.95 | 105.82 | 104.97 | 105.70 | 104.81 |
| 2021  | 107.97   | 108.18 | 106.86 | 107.80 | 110.30 | 109.63 | 109.13 | 109.57 | 108.25 | 107.36 | 108.50 | 107.34 |
| 2022  | 110.29   | 110.18 | 108.51 | 110.03 | 112.64 | 111.74 | 111.34 | 111.31 | 110.35 | 109.47 | 110.72 | 109.45 |
| 2023  | 112.83   | 112.45 | 110.71 | 112.53 | 114.68 | 114.03 | 113.73 | 113.41 | 112.67 | 111.65 | 113.16 | 112.19 |
| 2024  | 114.30   | 114.43 | 112.71 | 114.48 | 116.87 | 115.98 | 115.88 | 115.65 | 115.49 | 113.39 | 114.27 | 114.38 |
| 2025  | 116.91   | 117.20 | 115.28 | 117.34 | 120.36 | 119.33 | 118.49 | 118.61 | 117.89 | 115.92 | 116.94 | 116.63 |
| 2026  | 119.80   | 119.51 | 118.23 | 120.15 | 124.05 | 121.00 | 121.00 | 121.36 | 121.11 | 118.42 | 120.03 | 119.20 |
| 2027  | 122.14   | 121.76 | 120.31 | 122.17 | 127.41 | 123.38 | 123.05 | 124.32 | 123.30 | 120.82 | 121.96 | 121.54 |
| 2028  | 124.42   | 123.50 | 121.73 | 124.67 | 129.54 | 125.27 | 125.89 | 125.90 | 125.14 | 123.37 | 124.32 | 123.63 |
| 2029  | 127.02   | 126.81 | 124.48 | 127.44 | 136.23 | 128.72 | 128.78 | 128.78 | 128.83 | 125.88 | 126.59 | 126.49 |
| 2030  | 129.65   | 129.39 | 127.38 | 129.92 | 139.73 | 132.73 | 130.84 | 130.74 | 131.95 | 128.33 | 128.82 | 128.86 |
| 2031  | 132.04   | 131.60 | 130.17 | 133.11 | 142.39 | 136.41 | 133.28 | 134.11 | 134.29 | 130.94 | 131.91 | 131.53 |
| 2032  | 134.05   | 133.61 | 132.16 | 135.15 | 144.58 | 138.50 | 135.32 | 136.16 | 136.35 | 132.94 | 133.93 | 133.54 |
| 2033  | 137.18   | 136.73 | 135.24 | 138.30 | 147.94 | 141.72 | 138.47 | 139.33 | 139.53 | 136.04 | 137.05 | 136.65 |
| 2034  | 139.98   | 139.52 | 138.00 | 141.12 | 150.95 | 144.61 | 141.30 | 142.17 | 142.37 | 138.82 | 139.85 | 139.44 |
| 2035  | 142.53   | 142.06 | 140.51 | 143.69 | 153.71 | 147.25 | 143.87 | 144.76 | 144.97 | 141.35 | 142.39 | 141.98 |
| 2036  | 144.86   | 144.38 | 142.81 | 146.04 | 156.22 | 149.66 | 146.23 | 147.13 | 147.34 | 143.66 | 144.72 | 144.30 |
| 2037  | 148.08   | 147.59 | 145.99 | 149.29 | 159.70 | 152.99 | 149.48 | 150.41 | 150.62 | 146.85 | 147.94 | 147.51 |
| 2038  | 150.94   | 150.44 | 148.81 | 152.17 | 162.78 | 155.94 | 152.36 | 153.31 | 153.52 | 149.69 | 150.80 | 150.36 |
| 2039  | 153.85   | 153.34 | 151.68 | 155.11 | 165.92 | 158.95 | 155.30 | 156.27 | 156.48 | 152.58 | 153.71 | 153.26 |
| 2040  | 156.54   | 156.02 | 154.33 | 157.81 | 168.81 | 161.72 | 158.01 | 158.99 | 159.21 | 155.24 | 156.39 | 155.94 |
| 2041  | 159.85   | 159.32 | 157.59 | 161.15 | 172.39 | 165.14 | 161.36 | 162.36 | 162.58 | 158.52 | 159.70 | 159.24 |
| 2042  | 162.93   | 162.40 | 160.63 | 164.26 | 175.72 | 168.33 | 164.47 | 165.49 | 165.72 | 161.58 | 162.78 | 162.31 |

#### SCHEDULE 201 (Continued)

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

|                         |   |       |       |       | 1     | ABLE 4b | )     |       |       | - Inter 551 |       |       |
|-------------------------|---|-------|-------|-------|-------|---------|-------|-------|-------|-------------|-------|-------|
| Renewable Avoided Costs |   |       |       |       |       |         |       |       |       |             |       |       |
|                         | Renewable Fixed Price Option for Base Load QF |       |       |       |       |         |       |       |       |             |       |       |
|                         | Off-Peak Forecast (\$/MWH)                    |       |       |       |       |         |       |       |       |             |       |       |
|                         |   |       |       |       |       |         |       |       |       |             |       |       |
| Year                    | Jan   | Feb   | Mar   | Apr   | May   | Jun     | Jul   | Aug   | Sep   | Oct         | Nov   | Dec   |
| 2017                    | 25.07   | 26.91 | 24.49 | 15.91 | 12.17 | 10.50   | 17.91 | 24.41 | 24.31 | 22.38       | 24.83 | 26.92 |
| 2018                    | 25.65   | 27.53 | 25.06 | 16.30 | 12.48 | 10.78   | 18.34 | 24.98 | 24.88 | 22.91       | 25.41 | 27.54 |
| 2019                    | 28.18   | 30.25 | 27.52 | 17.84 | 13.62 | 11.73   | 20.10 | 27.43 | 27.32 | 25.14       | 27.91 | 30.27 |
| 2020                    | 55.06   | 55.29 | 56.65 | 55.55 | 52.58 | 52.78   | 53.04 | 54.06 | 54.85 | 55.93       | 55.76 | 56.14 |
| 2021                    | 56.97   | 56.29 | 57.78 | 56.57 | 54.03 | 54.07   | 54.64 | 54.94 | 55.96 | 57.75       | 55.61 | 57.11 |
| 2022                    | 57.78   | 57.49 | 59.46 | 57.46 | 54.79 | 55.12   | 56.44 | 55.58 | 57.03 | 58.82       | 56.52 | 58.16 |
| 2023                    | 58.53   | 58.57 | 60.63 | 59.03 | 55.13 | 56.16   | 57.38 | 56.90 | 58.03 | 60.02       | 57.37 | 59.34 |
| 2024                    | 59.00   | 59.06 | 61.83 | 58.87 | 55.44 | 57.84   | 56.81 | 57.13 | 58.45 | 60.26       | 59.15 | 59.71 |
| 2025                    | 60.20   | 60.19 | 63.12 | 59.74 | 55.43 | 58.15   | 58.02 | 58.89 | 58.99 | 61.58       | 61.14 | 60.59 |
| 2026                    | 60.49   | 61.29 | 63.41 | 60.15 | 56.02 | 58.98   | 58.83 | 59.45 | 58.83 | 62.40       | 61.28 | 61.32 |
| 2027                    | 62.57   | 62.55 | 64.16 | 61.72 | 55.88 | 60.06   | 60.36 | 59.81 | 60.16 | 64.24       | 62.01 | 62.45 |
| 2028                    | 63.42   | 63.96 | 66.16 | 63.26 | 55.35 | 61.40   | 61.55 | 60.38 | 61.59 | 64.74       | 62.71 | 64.41 |
| 2029                    | 63.86   | 64.58 | 67.38 | 64.49 | 51.11 | 61.67   | 62.62 | 61.41 | 62.76 | 65.44       | 64.59 | 65.53 |
| 2030                    | 64.85   | 65.65 | 68.76 | 64.61 | 50.89 | 62.20   | 63.19 | 63.34 | 63.17 | 66.67       | 66.12 | 66.88 |
| 2031                    | 66.26   | 67.30 | 69.67 | 64.93 | 51.92 | 62.00   | 64.53 | 64.67 | 63.31 | 67.77       | 67.62 | 66.96 |
| 2032                    | 67.35   | 68.41 | 70.82 | 66.00 | 52.77 | 63.03   | 65.60 | 65.74 | 64.36 | 68.89       | 68.74 | 68.06 |
| 2033                    | 68.84   | 69.92 | 72.38 | 67.46 | 53.94 | 64.42   | 67.05 | 67.19 | 65.78 | 70.41       | 70.26 | 69.57 |
| 2034                    | 70.17   | 71.27 | 73.78 | 68.76 | 54.98 | 65.66   | 68.34 | 68.49 | 67.05 | 71.77       | 71.61 | 70.91 |
| 2035                    | 71.52   | 72.65 | 75.20 | 70.09 | 56.04 | 66.93   | 69.66 | 69.81 | 68.34 | 73.16       | 73.00 | 72.28 |
| 2036                    | 72.70   | 73.85 | 76.45 | 71.25 | 56.97 | 68.03   | 70.81 | 70.97 | 69.47 | 74.37       | 74.20 | 73.47 |
| 2037                    | 74.31   | 75.48 | 78.13 | 72.82 | 58.22 | 69.54   | 72.37 | 72.53 | 71.01 | 76.01       | 75.84 | 75.10 |
| 2038                    | 75.74   | 76.94 | 79.64 | 74.23 | 59.35 | 70.88   | 73.77 | 73.93 | 72.38 | 77.48       | 77.30 | 76.55 |
| 2039                    | 77.20   | 78.42 | 81.18 | 75.66 | 60.49 | 72.25   | 75.20 | 75.36 | 73.77 | 78.97       | 78.80 | 78.02 |
| 2040                    | 78.48   | 79.72 | 82.52 | 76.91 | 61.49 | 73.44   | 76.44 | 76.61 | 74.99 | 80.27       | 80.10 | 79.31 |
| 2041                    | 80.21   | 81.48 | 84.34 | 78.61 | 62.85 | 75.06   | 78.13 | 78.30 | 76.65 | 82.05       | 81.87 | 81.06 |
| 2042                    | 81.76   | 83.05 | 85.97 | 80.13 | 64.06 | 76.51   | 79.63 | 79.81 | 78.13 | 83.63       | 83.45 | 82.63 |

Attachment E

# Exhibit 1

# All items in the form contract

- a. Form Contract filled for Standard Renewable Off-System Non-Variable Power Purchase Agreement.
- b. Graph of 32 years of energy production at Falls Creek
- c. Includes maximum and minimum production
- d. Schedule 201, Table 4a, 4b, effective May 17, 2017
- e. Note all other exhibits requested for this section, such as permits and licenses for water, fish and wildlife, and Army Crop appear under separate notebook headings.

Attachment F

#### Schedule 201 Initial Information Request - Small Hydro (Version 2)

General Information: Please complete the matrix below to provide PGE with project specific information . DO NOT FILL

#### FORM IN WITH "SEE ATTACHEMENT", doing so will result in Additional Information Requests.

General Information: Please complete the matrix below to provide PGE with project specific information

#### 1. Contract Information

- a. Seller Legal Name: Falls Creek H.P., Limited Partnership
- b. Type of facility (solar, or wind for example): Hydro
- c. County and GPS Coordinate to 3 decimals Latitude: 44.396, Logitude -122.348
- d. State : Oregon
- e. Generator Name Plate Rating in kW: 4100 (As built 4960)
- f. Section 1.11 Electric system to interconnect to and interconnection and its point of delivery:
  - Interconnection; Falls Creek Hydro Project: Point of Delivery, BPAT.
- g. Section 2.2.1 date to be begin delivery January 1, 2020 For contract purposes
- h. Section 2.2.3 date of Commercial Operation Date (December 31, 1984) January 1, 2020 for contract purpose
- i. Section 2.3 Termination Date: December 31, 2034
- j. Corporation type: Limited Partnership
- k. State of organization: Oregon
- I. Net Dependable Capacity in kW: 4910
- m. Estimated average annual Net Output: 15,500,000 kWh
- n. Maximum of kWh: 21,000,000
- o. Notice address line 1: Diane Moore, Administrator
- p. Notice address line 2: Falls Creek H.P., Limited Partnership
- q. Notice address line 3 PO Box 23508
- r. Notice address line 4: Eugene, OR 97402
- s. Copy to address line 1 Gary P. Marcus, General Partner
- t. Copy to address line 2 Falls Creek H.P., Limited Partnership
- u. Copy to address line 3 3980 N. Shasta Loop
- v. Copy to address line 4 Eugene, OR 97405
- w. On a separate sheet include a detailed facility description, including one-line diagram
- 2. Status of Seller's incorporation: Active
- 3. Seller's financial statements:
  - a. Income statement: Attached to Email
  - b. Balance sheet : Attached to Email
- 4. D & B report on seller, of the project sponsor if the seller is not in D & B: Gary Marcus, Trans 797, Equifax 792, Experian 793
- 5. List of all entities with an ownership interest in the facility: Frontier Tecnology, Inc., Gary Marcus
- 6. List all natural persons or persons or any legal entity or entities who:
  - a. Share common ownership with Seller:  ${\bf Gary\,Marcus}$
  - b. Share common management with Seller:  ${\bf Gary\,Marcus}$
  - c. Act jointly or in concert with Seller :  ${\bf Gary\,Marcus}$

- d. Execise influence over the policies or actions of Seller : Gary Marcus
- 7. The legal name of the manager of the Facility, if applicable: Keith Fuller
- 8. Proof of site control (lease, title to land, property tax bill, or other): Tax Bill, Forest Service Special Use Permit
- 9. FERC Form 556 and docket number as proof of submittal and acceptance by FERC: March 20, 2006, FERC Stamp, Self-Cert
- 10. Map adjoining QF sites owned by the same seller at this time, or within the past 12 months: None
- 11. Staffing plan for getting the project online: Project has been online since 1984
- 12. Status of interconnection and transmission agreements: Active now with PAC. new agreement to wheel to PGE in progress
- 13. Does Seller have FERC Market Based Rate Authority? If yes provide docket #. No

#### **Generation information**

- 1. Motive force plan: Divert up to 26.4 CFS from Falls Creek, 7,380ft. Penstock, 2,381 ft head, Pelton wheel, 4.910 MW
- 2. Expected energy delivery start date: Currently generating, Delivery to PGE January 1, 2020
- 3. Expected Availability of generation: 97% Availability during operating season, roughly Nov. 1 to June 30
- 4. Detailed generation modeling information: Model not required. Actual data available.
  - a. Annual MWh (AC) for the first calendar year of commercial operation and an annual degradation factor
  - b. Average 24-hr profile of generation MWh (AC) for each month during the first calendar year
  - c. Maximum 24-hr profile of generation MWh (AC) for each month during the first calendar year
  - d. Maximum annual output (monthly MWh detail) 19,554 MWh, in 2012
  - e. Loss Diagram: We have increased efficiency almost every year of operation, by eliminating friction in in the penstock, in the turbine housing, in the valves, in the tailrace, in the control and operation, in air cooling the generator.

#### Location of facility

- 1. GPS Coordinates (rounded to three degrees) Latitude 44.396 Longitude -122.348
- 2. Facility physical address (if available) 326551 Old Santiam Wagon Road, Cascadia, OR 97329
- 3. Legal description of parcel (proof of site control to be attached) Property Tax bill, Special Use Permit
- 4. Aerial Facility site boundary map: Attached to email

| Schedule 201 Initial | Information Request - | Small Hydro | (Version 2) | ł. |
|----------------------|-----------------------|-------------|-------------|----|
|----------------------|-----------------------|-------------|-------------|----|

| Schedule 201 Initial Information Request - Small Hydro (Version 2)   |   |
|--|---|
|  | Note this information is considered representative design information which is to be updated at the time of project<br>construction and is subject to design finalization |
| 1. Generation  |   |
| a. Output simulation results detail, including but not limited to:   |   |
| i. Annual MWh (AC) for the first calendar year of commercial operation and any annual degradation factor: 15,500 MWh Average                       |   |
| ii. Average 24-hr profile of generation MWh (AC) for each month during the first calendar year: Move cursor to Column D                            |   |
| iii. Maximum annual output (monthly MWh detail) 19,554 MWh in 2012   | Move Cursor Over to See , daily, monthly and yearly averages  |
| b. Loss Diagram : Project has increased capacity and effiency every year of its 33-year life.  |   |
| c. Design Capacity factor: 4100  |   |
| d. Expected Capacity factor: 4910 As built   |   |
| e. Minimum turndown capacity 200 kW  |   |
| f. Start time to full load 3 minutes when water is present (from cold start, need 2 minute to warm up)   |   |
| g. Ramp rate design (kW/min) 4,900 kW / min  |   |
| h. Ramp rate operational   |   |
| i. Ramp rate up and down (kW/min) Up 4,900 kW/min, down 4900 kW / 3 seconds  |   |
| ii. Rough Zone constraints NA  |   |
| i. Operation Model - Run of River, Reservoir Operation, etc.: Run of River   |   |
| 2. Description of Generation facility including:   |   |
| a. Design life of the facility: 75 years because of penstock cathodic protection. Possibly longer.   |   |
| b. Turbine Runner  |   |
| i. Turbine runner Manufacturer: model : Gilkes & Gordon, Ltd. 56240 Turbine Number - each turbine is unique  |   |
| ii. Turbine runner technology type: Horizontal Pelton, 34-inch diameter, Twin-Jet, single bearing, 22 split buckets                                |   |
| iii. Performance curve : 200 kW to 4910 kW (Peltons are 90% to 96% efficient over a wide range)  |   |
| iv. Turbine/Runner Name Plate Rating in kW 4479 (as built 4910)  |   |
| c. Generator   |   |
| i. Manufacturer: model and type Canadian General Electric (CGE), Model EN-139038, ATI Synchronous  |   |
| ii. Design curves and technical specifications   |   |
| d. Upstream / Downstream environmental mitigations   |   |
| . Minimum/maximum flow requirements: 1 CFS minium stream flow. No Maximum  |   |
| ii. Total dissovled gas (TDG) license requirements: None   |   |
| iii. Oxygen measure or other specific downstream environmental limits: None  |   |
| iv. Fish passage or wildlife requirements: None - just 1 cfs minimum stream flow   |   |
| v. Recreational or irrigation encomberments tha would impact facility generation: None   |   |
| e. Scheduled Maintenance (Weeks/Yr.) 16 Weeks/ Yr  |   |
| f. Typical Maintenance Period (Month(s) of year - planned down time) July 10 to November 1 (not enough water to operate)                           |   |
| g. Facility AC rating: 60 Hz, 4160 V, 669 A  |   |
| 3. Description of Facility permitting restrictions and requirements (local, state, or federal) prior to and during operations: 1 CFS min.          |   |
| <ol> <li>Description of transformers / interconnection equipment Step up from 4,160 V to 20,800 V</li> </ol>                                       |   |
| a. #of transformers one  |   |
| b. Model: GEK-45295  |   |
| c. High Voltage Rating: 20,800 V   |   |
| d. Low Voltage Rating 4,160 V  |   |
| e. MVA rating 5.000/6.250  |   |
| f. High voltage connection 20,800 V, Grounded WYE  |   |
| g. Low voltage connection 4,160 V, Delta Aurora Metering, PAC Metering, 24 hr. Dispatch for alarms   |   |
| <ol> <li>Description of metering, communications, and monitoring equipment; Lookout SCADA HMI, through cellular, landline, web based</li> </ol>    |   |
| <ol><li>Description of station service requirements: 1 to 120 kV in shut downs, for computers, lighting. On-site 20 kW propane generator</li></ol> |   |
| 7. Description and timeline of interconnection and transmission plan Aready interconnected to PAC. (*150 KVA Tansformer 208/120 3-phase)           |   |
| a. Interconnection Balancing Authorities: PacifiCorp   |   |
| <li>b. Timeline for completion of system integration and interconnection study: POD, BPAT. July 2017</li>  |   |
| c. Integration planning and WECC reserve obligations and arrangements: Falls Creek integrated for 33 years   |   |
| List of All Regired Facility Documents for Exhibit B   |   |
| 1. Interconnection Agreement : With PaciCorp - attached in this email  |   |
| 2. Transmission Agreement: In progress   |   |
| <ol><li>Permits (including licensing and environmental studies and impacts) OWRD, USFW, OFW, ODEQ</li></ol>  |   |
| 4 Accord Permite: Forest Service Special Lize Permit   |   |

- Access Permits: Forest Service Special Use Permit
- 5. FERC Form 556 and docket number as proof of submittal and acceptance by FERC: March 20, 2006, FERC Stamped, Self-Certified

Description of Start. Up Testing for Exhibit C including: 1. Required factory testing including such checks and tests necessary to determine that the equipment systems and subsystems have been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility. Plant has been running for 33 years. It started up safely.

2. Required start-up tests are those checks and tests necessary to determine that all features and equipment, systems, and subsystems have been properly designed, manufatured, installed and adjusted, function properly, and are capable of operating the Facility in continuous delivery into PGE's electrical system: Falls Creek has over 20 years of annual tests. Please let us know how many years of tests you would like. Some

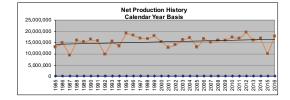
equipment is on three-year test cycles. Equipment is down 1% during operating season. PacifiCorp's distributions lines are down 2% of operating season. Falls Creek Availability is 97%

#### Calculations for PGE and PAC Transmission 32 Year Average Generation: 1986 through 2017 Number Number Average Ave Monthly MWh Max Monthly MW Capacity MW per Hour Davs Hours Jar 31 24 24 2.59 1,930 1,669 4.91 4.91 Jan Feb Mar Apr May Jun Jul 28.25 2.46 1,669 1,898 2,332 2,358 1,422 309 12 2.55 3.24 3.17 4.91 4.91 31 30 24 24 31 30 31 24 24 24 24 24 4.91 4.91 1.00 1.00 3.00 4.91 4.91 1.98 0.42 0.02 Aug 31 Sep Oct 0.05 30 31 24 24 37 257 Nov 30 24 1.78 1,278 2.61 1,945 Dec 24

|             | Year | Net kWh    |         |
|-------------|------|------------|---------|
| Reliable    |      |            |         |
| Year Number | 1984 | 45,840     |         |
|             | 1985 | 12,978,866 |         |
| 1           | 1986 | 14,672,220 |         |
| 2           | 1987 | 9,282,900  | Minimum |
| 3           | 1988 | 15,923,520 |         |
| 4           | 1989 | 15,119,390 |         |
| 5           | 1990 | 16,217,430 |         |
| 6           | 1991 | 15,537,017 |         |
| 7           | 1992 | 9,719,602  |         |
| 8           | 1993 | 15,356,839 |         |
| 9           | 1994 | 13,434,738 |         |
| 10          | 1995 | 19,112,880 | Maximum |
| 11          | 1996 | 18,184,957 |         |
| 12          | 1997 | 16,813,000 |         |
| 13          | 1998 | 16,619,980 |         |
| 14          | 1999 | 17,811,140 |         |
| 15          | 2000 | 15,228,030 |         |
| 16          | 2001 | 12,751,290 |         |
| 17          | 2002 | 13,857,761 |         |
| 18          | 2003 | 16,177,681 |         |
| 19          | 2004 | 17,030,845 |         |
| 20          | 2005 | 12,855,620 |         |
| 21          | 2006 | 16,606,380 |         |
| 22          | 2007 | 14,909,437 |         |
| 23          | 2008 | 15,926,187 |         |
| 24          | 2009 | 15,942,421 |         |
| 25          | 2010 | 17,303,491 |         |
| 26          | 2011 | 16,713,803 |         |
| 27          | 2012 | 19,554,109 | Maximum |
| 28          | 2013 | 15,793,950 |         |
| 29          | 2014 | 16,705,598 |         |
| 30          | 2015 | 9,911,451  |         |
| 31          | 2016 | 17,739,224 |         |

> 15,445,577 Average\*

\*Not including start up years of 1985 and 1986 \*Net kWh are gross kWh reduced by 3%



# Schedule 201 Initial Information Request - Small Hydro (Version 2) EXHIBIT B REQUIRED FACILITY DOCUMENTS Please complete this list, including but not limited to:

| Sellers Generation Interconnection Agreement          | PPL Agreement signed 1983                     |
|---|---|
| All required transmission Agreements                  | Applied for with PacifiCorp                   |
| All required environmental permits                    | OWRD, OFW, NFW, ODEQ, DEQ                     |
| All required agreement to record Renewable Energy Cer | rtificates Aurora                             |
| Required site control documents                       | US Forest Service Special Use Permit (FS SUP) |
| FERC Self-Certification and acceptance                | Form 556, filed and stamped March 20, 2006    |
| Any Conditional Use Permits                           | NA  |
| Any Access Permit                                     | FS SUP  |
| Construction Permits                                  | NA  |
| Water quality permits                                 | OWRD, DEQ                                     |

#### Schedule 201 Initial Information Request - Small Hydro (Version 2)

Exhibit C Required Testing

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

Note: Because the plant has been operating for 33 years, and the energy and capacity are being wheeled to PGE, most of this information is not applicable. We have annual maintenance reports. We have extensive preventative maintenace. The proof is we have always improved efficiency of plant.

- 1. Safety plan during startup and commissioning (including the expected number of individuals covered)
- 2. Review of all QA/QC testing
- 3. Confirm testing and energizing inverters in conformance with manufacturer's recommended

| procedures; note operating voltages; and confirm inverter is performing as expected           | No inverters                   |
|---|--------------------------------|
| 4. Energizing transformers  |                                |
| 5. Under full sun conditions, and after at least 15 minutes of operation, taking and          |                                |
| recording PV Plant operating data—such as but not limited to MWDC, MWAC, VDC,                 | NA                             |
| VAC, IDC, IAC, Solar Radiation, etc.  |                                |
| 6. Testing the system control and monitoring system to verify that it is performing correct   | ly                             |
| 7. Testing the communication system for offsite monitoring and all requirements of the W      | estern Energy Imbalance Market |
| 8. Testing the Plant metering and protective relaying to verify they meet utility requirement | nts                            |

- 9. Documentation of successful startup and commissioning procedure
- 10. Written notification submitted by Contractor to Owner that the completion of Acceptance Testing

and Commissioning has occurred

11. Testing to meet the requirements of Section 1.5.3.

Attachment G



7/7/17

Gary P. Marcus Falls Creek H.P., Limted Partnership 3980 N Shasta Loop Eugene, OR 97405 GaryMarcus1@aol.com

RE: Transmittal of Draft Standard PPA Falls Creek Hydro project, existing 4.9 megawatt hydro QF

Dear Mr. Marcus,

Thank you for your interest in entering into a Standard Power Purchase Agreement (Standard PPA) with Portland General Electric (PGE). We received your written response to PGE's *Schedule 201 Initial Information Form* on 6/14/17. On 6/26/17, 6/28/17, and 6/30/17 PGE sent you a request for additional or clarifying information, and you responded in writing on 6/30/17. PGE has determined that you have provided sufficient information to allow PGE to prepare a draft Standard PPA.

Enclosed please find a draft Standard PPA for your Falls Creek Hydro project, an existing 4.9 megawatt hydro generating facility that was self-certified as a qualifying facility (QF) pursuant to 18 CFR 292.207. PGE understands that Falls Creek H.P., a Limited Partnership formed under the laws of the State of Oregon is the owner of the Falls Creek Hydro project and will be the Seller under the Standard PPA. If any of this information or any of the factual details contained in the enclosed draft Standard PPA are incorrect or change, please inform PGE immediately.

The enclosed draft Standard PPA is a discussion draft; it is not a binding offer and PGE reserves the right to revise any of its variable terms, including exhibits. No binding Standard PPA will exist between PGE and Falls Creek H.P. unless and until PGE has provided Falls Creek H.P. with an executable Standard PPA and both Falls Creek H.P. and PGE have executed the document.

At this stage in the process you have several options: you can decide not to pursue a contract any further; you can propose in writing substantive changes to your project proposal or to the variable terms of the draft Standard PPA; or you can send PGE a written request to prepare a final draft Standard PPA without proposing any substantive changes to your project or the draft contract.

If you propose substantive changes to your project or the variable terms of the draft Standard PPA, PGE will treat your proposal as a new request for a draft Standard PPA. **Falls Creek Hydro 7/7/17** Page 2 of 2

Within 15 business days of receiving your written proposal, PGE with send you either a new draft Standard PPA or PGE will request additional or clarifying information if PGE reasonably determines that it requires more information before it can prepare a new draft Standard PPA in response to your proposal to change contract terms or project details.

If you request a final draft Standard PPA without proposing substantive changes to your project proposal or to the variable terms of the draft Standard PPA, then within 15 business days of receiving your written request, PGE will send you either a final draft Standard PPA or request additional or clarifying information if PGE reasonably determines that additional information is necessary to prepare a final draft Standard PPA.

Once you have received a final draft Standard PPA, you will need to request in writing an executable Standard PPA. Within 15 business days of receiving such a written request, PGE will send you either an executable Standard PPA, a new draft Standard PPA (if you have requested substantive revisions to the final draft Standard PPA as part of your request for an executable Standard PPA), or a request for additional or clarifying information if PGE determines more information is needed to prepare an executable or new draft Standard PPA.

Once you receive an executable Standard PPA, you can execute it without alteration and establish a legally enforceable obligation. Pursuant to PGE's Schedule 201 at Sheet No. 201-3 and OPUC Order No. 16-174 at 3, the power purchase prices you are entitled to receive under your Standard PPA will be based on PGE's Standard Avoided Costs or Renewable Avoided Costs in effect at the time that you execute an executable Standard PPA provided to you by PGE.

This letter summarizes certain aspects of the Standard PPA process; it does not address every detail of the process. Additional details will be provided for each stage in PGE's letters associated with each stage.

Sincerely,

 Ryin Khandoker I Structuring and Origination

 Portland General Electric I 121 SW Salmon Street, 3WTC0306, Portland, Oregon 97204

 2: 503-464-8448 | Discrete: solution: soluti: solution: solution: solution: solution: solution: solution: sol

enclosure: Draft Standard PPA for Falls Creek H.P.'s Falls Creek Hydro Project

Attachment H

#### STANDARD OFF-SYSTEM NON-VARIABLE POWER PURCHASE AGREEMENT

THIS AGREEMENT is between **Falls Creek H.P., Limited Partnership** ("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>hydro</u> facility for the generation of electric power located in (44.396 N -122.348 ) Lane County, Oregon with a Nameplate Capacity Rating of <u>4,960</u> kilowatt ("kW"), as further described in Exhibit B ("Facility"); and

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

Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.19, below, from the Facility in accordance with the terms and conditions of this Agreement.

# AGREEMENT

NOW, THEREFORE, the Parties mutually agree as follows:

# SECTION 1: DEFINITIONS

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

1.1. "As-built Supplement" means the supplement to Exhibit B provided by Seller in accordance with Section 4.4 following completion of construction of the Facility, describing the Facility as actually built.

1.2. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.

1.3. "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.

1.4. "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:

71.4.1. (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 amounts required by this Agreement and in accordance with all other terms and conditions of this Agreement (certifications required under this Section 1.4 can be provided by one or more LPEs);

1.4.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.28;

1.4.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the operation of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;

1.4.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;

1.4.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;

1.4.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.

1.5. "Contract Price" means the applicable price, including on-peak and offpeak prices, as specified in the Schedule.

1.6. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final contract year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.

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

1.8. "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.

#### 1.9. "Facility" has the meaning set forth in the Recitals.

1.10. "Forward Replacement Price" means the price at which PGE, acting in a commercially reasonable manner, purchases for delivery at the Point of Delivery a replacement for any Net Output that Seller is required to deliver under this Agreement plus (i) costs reasonably incurred by PGE in purchasing such replacement Net Output, and (ii) additional transmission charges, if any, reasonably incurred by PGE in causing replacement energy to be delivered to the Point of Delivery. If PGE elects not to make such a purchase, costs of purchasing replacement Net Output shall be at the Mid-C Index Price for such energy not delivered, plus any additional cost or expense incurred as a result of Seller's failure to deliver, as determined by PGE in a commercially reasonable manner (but not including any penalties, ratcheted demand or similar charges).

1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with <u>Pacificorp</u> electric system

1.12. "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.

1.13. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.

1.14. "Lost Energy Value" means for a Contract Year: zero plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery, unless the Contract Year's Net Output is less than the Minimum Net Output and the Contract Year's time-weighted average of the Mid-C Index Price for On-Peak and Off-Peak Hours is greater than the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours for that Contract Year, in which case Lost Energy Value equals: (Minimum Net Output - Net Output for the Contract Year) X (the lower of: the time-weighted average of the Contract Year) X (the lower of: the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours; or the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours – the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours) minus Transmission Curtailment Replacement Energy Cost, if any, for like period plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery

1.15. "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.

1.16. "Minimum Net Output" shall have the meaning specified in Section 4.2 of this Agreement.

1.17. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.

1.18. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.

1.19. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.

1.20. "Off-Peak Hours" has the meaning provided in the Schedule.

1.21. "On-Peak Hours" has the meaning provided in the Schedule.

1.22. "Point of Delivery" means the PGE System.

1.23. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.

1.24. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.

1.25. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit C.

1.26. "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 E, the terms of which are hereby incorporated by reference.

1.27. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.

1.28. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit D.

1.29. "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.

1.30. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.

1.31. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.

1.32. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.

1.33. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).

1.34. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the difference between Mid-C Index Price – Contract Price X curtailed energy for periods of Transmission Curtailment.

1.35. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.

1.36. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of 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 January 1, 2020 Seller shall begin initial deliveries of Net Output; and

2.2.2. By <u>January 1, 2020</u> Seller shall have completed all requirements under Section 1.4 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. Buyer will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.

2.3. This Agreement shall terminate on <u>December 31, 2034</u>, or the date the Agreement is terminated in accordance with Section 8 or 11.2, whichever is earlier ("Termination Date").

# SECTION 3: REPRESENTATIONS AND WARRANTIES

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

3.1.1. Seller warrants it is a <u>Limited Partnership</u> duly organized under the laws of <u>Oregon</u>.

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 <u>4,910</u> kW.

3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is <u>15,500,000</u> kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.

3.1.10. Seller will schedule and deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of  $\frac{21,000,000}{21,000,000}$  kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.

3.1.11. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.

3.1.12. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.

3.1.13. Seller warrants that (i) the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard PPA in PGE's Schedule and (ii) Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.

# SECTION 4: DELIVERY OF POWER AND PRICE

4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output from the Facility. Seller's Net Output shall be scheduled and delivered to PGE at the Point of Delivery in accordance with Section 4.5. PGE shall pay Seller the Contract Price for all scheduled and delivered Net Output.

4.2. Seller shall schedule and deliver to PGE from the Facility for each Contract Year Net Output equal to or greater than the Minimum Net Output (either (a) if Seller does not select the Alternative Minimum Amount as defined in Exhibit A of this Agreement, seventy-five percent (75%) of its average annual Net Output or (b) if

selected by Seller, the Alternative Minimum Amount designated for each Contract Year), provided that such Minimum Net Output shall be reduced on a pro-rata basis for any periods during a Contract Year(s) that the Facility was prevented from generating electricity for reasons of Force Majeure.

4.3. Seller agrees that if Seller does not deliver the Minimum Net Output each Contract Year for reasons other than Transmission Curtailment, PGE will suffer losses equal to the Lost Energy Value. As damages for Seller's failure to deliver the Minimum Net Output (subject to adjustment for reasons of Force Majeure as provided in Section 4.2) in any Contract Year, notwithstanding any other provision of this Agreement the purchase price payable by PGE for future deliveries shall be reduced until Lost Energy Value is recovered. PGE and Seller shall work together in good faith to establish the period, in monthly amounts (not more than 24 months), of such reduction so as to avoid Seller's default on its commercial or financing agreements necessary for its continued operation of the Facility for QF Facilities sized at 100 kW or smaller, the provisions of this section shall not apply.

4.4. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit B or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.10 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with 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 of the required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.

4.5. 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.

4.6. Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Environmental Attributes produced with respect to the Facility, and PGE shall not report under such program that such Environmental Attributes belong to it.

#### SECTION 5: 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 or transmission to PGE's electric system is curtailed, disconnected, suspended or interrupted, in whole or in part. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.

5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.

5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance that could affect the generation, scheduling or delivery of energy to PGE, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

# SECTION 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 ten (10) days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Minimum Net Output / 8760). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

# SECTION 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.

7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

#### SECTION 8: DEFAULT, REMEDIES AND TERMINATION

8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:

8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.

8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within ten (10) days of notice.

8.1.3. Seller's failure to deliver the Minimum Net Output for two consecutive Contract Years.

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, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party, and, except for damages related to a default pursuant to Section 8.1.3, by a QF sized at 100 kW or smaller, may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. Such termination shall be effective upon the date of delivery of notice, as provided in Section 20.1. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.

8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement,

are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.

8.5. If this Agreement is terminated as a result of Seller's default, Seller shall pay PGE the positive difference, if any, obtained by subtracting the Contract Price from the sum of the Forward Replacement Price for the Minimum Net Output that Seller was otherwise obligated to provide for a period of twenty-four (24) months from the date of termination plus any cost incurred for transmission purchased by PGE to deliver the replacement power to the Point of Delivery and the estimated administrative cost to the utility to acquire replacement power. Accounts owed by Seller pursuant to this paragraph shall be due within five (5) business days after any invoice from PGE for the same.

8.6. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.

8.7. Sections 8.1, 8.4, 8.5, 8.6, 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 Sections 4.5 of this Agreement.

9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.5 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

# SECTION 10: INDEMNIFICATION AND LIABILITY

10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent

such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.

10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.

10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.

10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

# SECTION 11: INSURANCE

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against

property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.

11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

# SECTION 12: FORCE MAJEURE

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

12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:

12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and

12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and

12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.

12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.

12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

# SECTION 13: SEVERAL OBLIGATIONS

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

# SECTION 14: CHOICE OF LAW

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

# SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

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

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

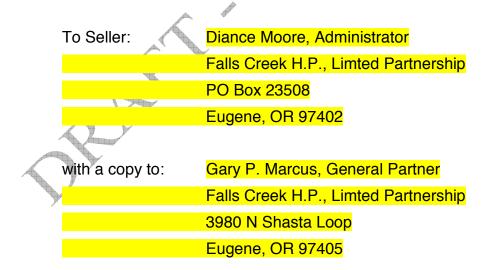
# SECTION 19: ENTIRE AGREEMENT

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 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:                               | 1             |
| Name:                             |               |
| Title:                            |               |
| Date:                             |               |
|                                   |               |
| Falls Creek H.P., Limited Partner | ship          |
|                                   | $\rightarrow$ |
| By:                               |               |
| Name:                             |               |
| Title:                            |               |
| Date:                             |               |
| Pt'                               |               |

#### EXHIBIT A MINIMUM NET OUTPUT

In this Exhibit, Seller may designate an alternative Minimum Net Output to seventy-five (75%) percent of annual average Net Output specified in Section 3.1.9 of the Agreement ("Alternative Minimum Amount"). Such Alternative Minimum Amount, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of the Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.

otforfi

#### EXHIBIT B DESCRIPTION OF SELLER'S FACILITY

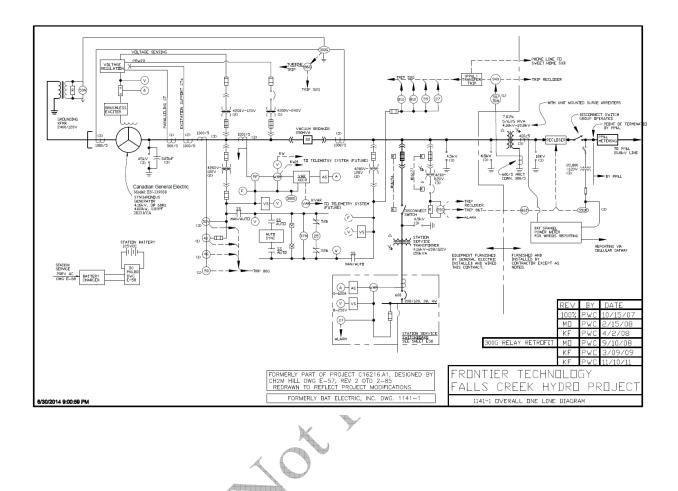
| ntract Information   |                                       |
|--|---------------------------------------|
|  |                                       |
| a. Seller Legal Name: Falls Creek H.P., Limited Partnership  | Falls Creek H.P., Limited Partnership |
| b. Type of facility (solar, or wind for example): Hydro  | hydro                                 |
| c. County and GPS Coordinate to 3 decimals Latitude: 44.396, Logitude -122.348                           | (44.396 N -122.348 ) Lane             |
| d. State : Oregon  | Orego                                 |
| e. Generator Name Plate Rating in kW: 4100 (As built 4960)   | 4100                                  |
| f. Section 1.11 Electric system to interconnect to and interconnection and its point of delivery:        |                                       |
| Interconnection; Falls Creek Hydro Project: Point of Delivery, BPAT.                                     | ВРА                                   |
| g. Section 2.2.1 date to be begin delivery January 1, 2020 For contract purposes                         | 1-Jan-20                              |
| h. Section 2.2.3 date of Commercial Operation Date (December 31, 1984) January 1, 2020 for contract purp | os 1-Jan-2                            |
| i. Section 2.3 Termination Date: December 31, 2034   | 31-Dec-3                              |
| j. Corporation type: Limited Partnership   | Limited Partnershi                    |
| k. State of organization: Oregon   | Orego                                 |
| I. Net Dependable Capacity in kW: 4910   | 491                                   |
| m. Estimated average annual Net Output: 15,500,000 kWh   | 1550000                               |
| n. Maximum of kWh: 21,000,000  | 2100000                               |
| o. Notice address line 1: Diane Moore, Administrator   | Diance Moore, Administrato            |
| p. Notice address line 2: Falls Creek H.P., Limited Partnership  | Falls Creek H.P., Limted Partnershi   |
| q. Notice address line 3 PO Box 23508  | PO Box 2350                           |
| r. Notice address line 4: Eugene, OR 97402   | Eugene, OR 9740                       |
| s. Copy to address line 1 Gary P. Marcus, General Partner  | Gary P. Marcus, General Partne        |
| t. Copy to address line 2 Falls Creek H.P., Limited Partnership  | Falls Creek H.P., Limted Partnershi   |
| u. Copy to address line 3 3980 N. Shasta Loop  | 3980 N Shasta Loop                    |
| v. Copy to address line 4 Eugene, OR 97405   | Eugene, OR 9740                       |
| w. On a separate sheet include a detailed facility description, <u>including one-line diagram</u>        | Lugene, ON 3740.                      |
|  |                                       |

| 1. Generation  |       |
|--|-------|
| a. Output simulation results detail, including but not limited to:   | -     |
| <ul> <li>a. Output simulation results detail, including but not initiate to:</li> <li>i. Annual MWh (AC) for the first calendar year of commercial operation and any annual degradation factor: 15,500 MWh Average</li> </ul>  |       |
| ii. Average 24-hr profile of generation MWh (AC) for each month during the first calendar year: <b>Move cursor to Column D</b>   |       |
| iii. Maximum annual output (monthly MWh detail) 19,554 MWh in 2012   |       |
|  |       |
| b. Loss Diagram : Project has increased capacity and effiency every year of its 33-year life.  |       |
| c. Design Capacity factor: 4100  |       |
| d. Expected Capacity factor: <b>4910 As built</b>  |       |
| e. Minimum turndown capacity <b>200 kW</b>   |       |
| f. Start time to full load 3 minutes when water is present (from cold start, need 2 minute to warm up)   |       |
| g. Ramp rate design (kW/min) 4,900 kW / min  |       |
| h. Ramp rate operational   | A.    |
| i. Ramp rate up and down (kW/min) <b>Up 4,900 kW/min, down 4900 kW / 3 seconds</b>   |       |
| ii. Rough Zone constraints <b>NA</b>   |       |
| i. Operation Model - Run of River, Reservoir Operation, etc.: Run of River   |       |
| 2. Description of Generation facility including:   | • • • |
| a. Design life of the facility: 75 years because of penstock cathodic protection. Possibly longer.   |       |
| b. Turbine Runner  |       |
| i. Turbine runner Manufacturer: model : Gilkes & Gordon, Ltd. 56240 Turbine Number - each turbine is unique  |       |
| ii. Turbine runner technology type: Horizontal Pelton, 34-inch diameter, Twin-Jet, single bearing, 22 split buckets  |       |
| iii. Performance curve : 200 kW to 4910 kW (Peltons are 90% to 96% efficient over a wide range)  |       |
| iv. Turbine/Runner Name Plate Rating in kW 4479 (as built 4910)  |       |
| c. Generator   |       |
| <ul> <li>i. Manufacturer: model and type Canadian General Electric (CGE), Model EN-139038, ATI Synchronous</li> </ul>  |       |
| ii. Design curves and technical specifications   |       |
| d. Upstream / Downstream environmental mitigations   |       |
| i. Minimum/maximum flow requirements: 1 CFS minium stream flow. No Maximum   | 41    |
| ii. Total dissovled gas (TDG) license requirements: None   |       |
| iii. Oxygen measure or other specific downstream environmental limits: None  |       |
| iv. Fish passage or wildlife requirements: None - just 1 cfs minimum stream flow   |       |
|  |       |
| v. Recreational or irrigation encomberments tha would impact facility generation: None   | E.    |
| e. Scheduled Maintenance (Weeks/Yr.) 16 Weeks/ Yr  |       |
| f. Typical Maintenance Period (Month(s) of year - planned down time) July 10 to November 1 (not enough water to operate)   | _     |
| g. Facility AC rating: 60 Hz, 4160 V, 669 A  |       |
| 3. Description of Facility permitting restrictions and requirements (local, state, or federal) prior to and during operations: 1.CFS min.  |       |
| 4. Description of transformers / interconnection equipment Step up from 4,160 V to 20,800 V  |       |
| a. # of transformers one   |       |
| b. Model: GEK-45295  |       |
| c. High Voltage Rating: 20,800 V   |       |
| d. Low Voltage Rating 4,160 V  |       |
| e. MVA rating 5.000/6.250  |       |
| f. High voltage connection 20,800 V, Grounded WYE  |       |
| g. Low voltage connection 4,160 V, Delta Aurora Metering, PAC Metering, 24 hr. Dispatch for alarms   |       |
| 5. Description of metering, communications, and monitoring equipment; Lookout SCADA HMI, through cellular, landline, web based   |       |
| 6. Description of station service requirements: 1 to 120 kV in shut downs, for computers, lighting. On-site 20 kW propane generator  |       |
| 7. Description and timeline of interconnection and transmission plan Already interconnected to PAC. (^150 KVA Tansformer 208/120 3-phase)  |       |
| a. Interconnection Balancing Authorities: PacifiCorp   |       |
| b. Timeline for completion of system integration and interconnection study: POD, BPAT. July 2017   |       |
| c. Integration planning and WECC reserve obligations and arrangements: Falls Creek integrated for 33 years   |       |
|  |       |
| List of All Regired Facility Documents for Exhibit B   |       |
| 1. Interconnection Agreement : With PaciCorp - attached in this email  |       |
| 2. Transmission Agreement: In progress   |       |
| 3. Permits (including licensing and environmental studies and impacts) OWRD, USFW, OFW, ODEQ   |       |
| 4. Access Permits: Forest Service Special Use Permit   | Ī     |
| 5. FERC Form 556 and docket number as proof of submittal and acceptance by FERC: March 20, 2006, FERC Stamped, Self-Certified  |       |
| Description of Start Up Testing for Exhibit C including:   |       |
| <ol> <li>Required factory testing including such checks and tests necessary to determine that the equipment systems and subsystems have</li> </ol>   |       |
| been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility.   |       |
| Plant has been running for 33 years. It started up safely.   |       |
|  |       |
| <ol> <li>Required start-up tests are those checks and tests necessary to determine that all features and equipment, systems, and subsystems<br/>have been properly designed, manufatured, installed and adjusted, function properly, and are capable of operating the Facility in<br/>control on delivera into Operating the Cache has a work 20 work 20 energies and the capability the provided the<br/>provided on the capability of the cache has a work 20 work 20 energies and the capability the cache has a work of the<br/>second on the cache has a work of the cache has a work 20 work of a particulated.</li> </ol> |       |

have been properly designed, manufatured, installed and adjusted, function properly, and are capable of operating the Facility in continuous delivery into PGE's electrical system: Falls Creek has over 20 years of annual tests. Please let us know how many years of tests you would like. Some equipment is on three-year test cycles. Equipment is down 1% during operating season. PacifiCorp's distributions lines are down 2% of operating season. Falls Creek Availability is 97%

#### Monthly Output/Daily Profile of Generation

| MON        |          | ut/Dally F | Profile of Gene | ration           | A 4         |
|------------|----------|------------|-----------------|------------------|-------------|
|            | Ca       | lculations | for PGE and PA  | C Transmission   |             |
|            | 32 Ye    | ear Averag | e Generation: 1 | 986 through 2017 |             |
|            |          |            |                 |                  |             |
|            | Number   | Number     | Average         | Ave Monthly      | Max Monthly |
|            | Days     | Hours      | MW per Hour     | MWh              | MW Capacity |
|            |          |            |                 |                  |             |
| Jan        | 31       | 24         | 2.59            | 1,930            |             |
| Feb        | 28.25    | 24         | 2.46            | 1,669            |             |
| Mar        | 31       | 24         | 2.55            | 1,898            |             |
| Apr        | 30       | 24         | 3.24            | 2,332            |             |
| May        | 31       | 24         | 3.17            | 2,358            |             |
| Jun        | 30       | 24         | 1.98            | 1,422            |             |
| Jul        | 31       | 24         | 0.42            | 309              |             |
| Aug        | 31       | 24         | 0.02            | 12               |             |
| Sep        | 30       | 24         | 0.05            | 37               |             |
| Oct        | 31       | 24         | 0.35            | 257              |             |
|            |          |            |                 |                  |             |
| Dec        | 31       | 24         | 2.61            | 1,945            | 4.91        |
| Nov<br>Dec | 30<br>31 | 24<br>24   | 1.78<br>2.61    | 1,278<br>1,945   |             |



RAF

#### EXHIBIT C REQUIRED FACILITY DOCUMENTS

Sellers Generation Interconnection Agreement PPL Agreement signed 1983 All required transmission Agreements Applied for with PacifiCorp All required environmental permits OWRD, OFW, NFW, ODEQ, DEQ All required agreement to record Renewable Energy Certificates Aurora US Forest Service Special Use Permit (FS Required site control documents SUP) Form 556, filed and stamped March 20, FERC Self-Certification and acceptance 2006 Any Conditional Use Permits NA Any Access Permit FS SUP **Construction Permits** NA Water quality permits OWRD, DEC ortor

#### EXHIBIT D START-UP TESTING

# Schedule 201 Initial Information Request - Small Hydro (Version 2)

Exhibit C Required Testing

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

Note: Because the plant has been operating for 33 years, and the energy and capacity are being wheeled to PGE, most of this information is not applicable. We have annual maintenance reports. We have extensive preventative maintenace. The proof is we have always improved efficiency of plant.

1. Safety plan during startup and commissioning (including the expected number of individuals covered)

2. Review of all QA/QC testing

3. Confirm testing and energizing inverters in conformance with manufacturer's recommended procedures; note operating voltages; and confirm inverter is performing as expected

4. Energizing transformers

5. Under full sun conditions, and after at least 15 minutes of operation, taking and recording PV Plant operating data—such as but not limited to MWDC, MWAC, VDC, NAC, VAC, IDC, IAC, Solar Radiation, etc.

6. Testing the system control and monitoring system to verify that it is performing correctly

7. Testing the communication system for offsite monitoring and all requirements of the Western Energy Imbalance Market

8. Testing the Plant metering and protective relaying to verify they meet utility requirements

9. Documentation of successful startup and commissioning procedure

10. Written notification submitted by Contractor to Owner that the completion of Acceptance Testing and Commissioning has occurred

11. Testing to meet the requirements of Section 1.5.3.

# EXHIBIT E

white Address and the address of the

#### 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.

|      |        |        |        |          | Т         | ABLE 1a  |          |         |        |        |        |        |
|------|--------|--------|--------|----------|-----------|----------|----------|---------|--------|--------|--------|--------|
|      |        |        |        |          | Avo       | ided Cos | ts       |         |        |        |        |        |
|      |        |        | St     | andard F | ixed Pric | e Option | for Base | Load QF | •      |        |        |        |
|      |        |        |        | 0        | n-Peak F  | orecast  | \$/MWH)  |         |        |        |        |        |
|      |        |        |        |          |           |          |          |         |        |        |        |        |
| Year | Jan    | Feb    | Mar    | Apr      | May       | Jun      | Jul      | Aug     | Sep    | Oct    | Nov    | Dec    |
| 2017 | 42.81  | 30.21  | 19.11  | 12.56    | 16.71     | 18.71    | 29.71    | 33.71   | 30.21  | 27.21  | 29.21  | 35.71  |
| 2018 | 31.71  | 31.11  | 28.10  | 19.97    | 19.21     | 19.21    | 28.16    | 31.40   | 28.82  | 25.64  | 28.54  | 31.96  |
| 2019 | 32.37  | 31.76  | 28.69  | 20.40    | 19.63     | 19.63    | 28.75    | 32.05   | 29.42  | 26.18  | 29.14  | 32.62  |
| 2020 | 34.85  | 34.19  | 30.88  | 21.93    | 21.10     | 21.10    | 30.95    | 34.51   | 31.67  | 28.17  | 31.37  | 35.13  |
| 2021 | 62.41  | 62.19  | 61.99  | 60.93    | 60.73     | 60.74    | 60.79    | 60.84   | 60.93  | 61.16  | 61.76  | 62.44  |
| 2022 | 64.10  | 64.19  | 64.27  | 63.87    | 63.84     | 63.93    | 64.00    | 64.10   | 64.20  | 64.30  | 65.26  | 65.35  |
| 2023 | 67.48  | 67.59  | 67.69  | 67.06    | 67.11     | 67.22    | 67.31    | 67.40   | 67.52  | 67.62  | 68.68  | 68.79  |
| 2024 | 69.99  | 70.11  | 70.22  | 69.82    | 69.50     | 69.62    | 69.72    | 69.83   | 69.95  | 70.62  | 70.85  | 70.98  |
| 2025 | 72.67  | 72.80  | 72.93  | 72.99    | 72.19     | 72.23    | 72.34    | 72.47   | 72.59  | 72.71  | 73.55  | 73.69  |
| 2026 | 75.30  | 75.45  | 75.57  | 74.87    | 74.74     | 74.85    | 74.96    | 75.09   | 75.22  | 75.35  | 76.40  | 76.54  |
| 2027 | 78.22  | 78.36  | 78.50  | 77.76    | 77.61     | 77.68    | 77.81    | 77.94   | 78.10  | 78.23  | 79.36  | 79.50  |
| 2028 | 81.14  | 81.30  | 81.45  | 80.70    | 80.63     | 80.69    | 80.83    | 80.97   | 81.15  | 81.28  | 82.65  | 82.83  |
| 2029 | 84.83  | 85.00  | 85.16  | 84.37    | 84.30     | 84.37    | 84.48    | 84.64   | 84.22  | 84.37  | 85.47  | 85.64  |
| 2030 | 87.51  | 87.70  | 87.57  | 86.46    | 86.68     | 85.53    | 85.69    | 85.84   | 86.03  | 86.19  | 87.36  | 87.55  |
| 2031 | 89.53  | 89.73  | 89.77  | 88.64    | 88.86     | 88.39    | 88.54    | 88.71   | 88.91  | 89.07  | 90.39  | 90.59  |
| 2032 | 92.27  | 92.47  | 92.59  | 91.42    | 91.60     | 91.64    | 91.81    | 91.99   | 92.20  | 92.38  | 93.65  | 93.87  |
| 2033 | 96.34  | 96.55  | 96.65  | 95.42    | 95.65     | 94.02    | 94.19    | 94.39   | 94.59  | 94.77  | 96.09  | 96.31  |
| 2034 | 98.49  | 98.72  | 97.24  | 96.01    | 96.24     | 95.79    | 95.98    | 96.17   | 96.38  | 96.57  | 98.03  | 98.25  |
| 2035 | 100.40 | 100.63 | 100.56 | 99.28    | 99.52     | 98.82    | 99.00    | 99.19   | 99.43  | 99.62  | 101.11 | 101.34 |
| 2036 | 102.77 | 103.00 | 102.93 | 101.62   | 101.89    | 101.16   | 101.36   | 101.55  | 101.79 | 101.99 | 103.52 | 103.73 |
| 2037 | 105.59 | 105.82 | 105.75 | 104.40   | 104.68    | 103.94   | 104.13   | 104.34  | 104.57 | 104.78 | 106.33 | 106.56 |
| 2038 | 108.31 | 108.55 | 108.46 | 107.11   | 107.39    | 106.62   | 106.83   | 107.04  | 107.27 | 107.49 | 109.07 | 109.30 |
| 2039 | 110.86 | 111.12 | 111.03 | 109.65   | 109.93    | 109.15   | 109.36   | 109.56  | 109.83 | 110.04 | 111.63 | 111.89 |
| 2040 | 113.79 | 114.03 | 113.96 | 112.54   | 112.81    | 112.04   | 112.24   | 112.45  | 112.71 | 112.93 | 114.58 | 114.82 |
| 2041 | 116.46 | 116.72 | 116.63 | 115.20   | 115.47    | 114.67   | 114.89   | 115.10  | 115.37 | 115.58 | 117.26 | 117.52 |

|      |       |       |       |          | T          | ABLE 1b   |          |         |       |       |       |       |
|------|-------|-------|-------|----------|------------|-----------|----------|---------|-------|-------|-------|-------|
|      |       |       |       |          | Avoi       | ded Cost  | ts       |         |       |       |       |       |
|      |       |       | Sta   | andard F | ixed Price | e Option  | for Base | Load QF |       |       |       |       |
|      |       |       |       | 0        | ff-Peak F  | orecast ( | \$/MWH)  |         |       |       |       |       |
|      |       |       |       |          |            |           |          |         |       |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr      | May        | Jun       | Jul      | Aug     | Sep   | Oct   | Nov   | Dec   |
| 2017 | 30.96 | 25.46 | 12.96 | 4.46     | 7.71       | 9.21      | 17.71    | 24.96   | 25.21 | 23.71 | 24.96 | 29.71 |
| 2018 | 24.82 | 26.66 | 24.24 | 15.66    | 11.92      | 10.25     | 17.66    | 24.16   | 24.06 | 22.13 | 24.58 | 26.67 |
| 2019 | 25.39 | 27.27 | 24.80 | 16.04    | 12.22      | 10.52     | 18.08    | 24.72   | 24.62 | 22.65 | 25.15 | 27.28 |
| 2020 | 27.90 | 29.97 | 27.24 | 17.56    | 13.34      | 11.45     | 19.82    | 27.15   | 27.04 | 24.86 | 27.63 | 29.99 |
| 2021 | 23.86 | 23.65 | 23.45 | 22.38    | 22.19      | 22.20     | 22.25    | 22.30   | 22.38 | 22.62 | 23.21 | 23.90 |
| 2022 | 24.81 | 24.90 | 24.99 | 24.59    | 24.55      | 24.64     | 24.71    | 24.81   | 24.91 | 25.01 | 25.97 | 26.07 |
| 2023 | 27.30 | 27.42 | 27.52 | 26.88    | 26.94      | 27.04     | 27.14    | 27.23   | 27.35 | 27.44 | 28.51 | 28.62 |
| 2024 | 29.30 | 29.42 | 29.53 | 29.13    | 28.81      | 28.94     | 29.03    | 29.14   | 29.26 | 29.94 | 30.17 | 30.29 |
| 2025 | 31.06 | 31.20 | 31.32 | 31.39    | 30.58      | 30.63     | 30.74    | 30.86   | 30.98 | 31.11 | 31.95 | 32.08 |
| 2026 | 32.90 | 33.04 | 33.16 | 32.46    | 32.33      | 32.44     | 32.55    | 32.68   | 32.82 | 32.94 | 33.99 | 34.13 |
| 2027 | 34.99 | 35.13 | 35.27 | 34.54    | 34.38      | 34.45     | 34.58    | 34.71   | 34.87 | 35.00 | 36.13 | 36.27 |
| 2028 | 37.08 | 37.23 | 37.39 | 36.64    | 36.57      | 36.63     | 36.77    | 36.91   | 37.09 | 37.22 | 38.59 | 38.77 |
| 2029 | 39.92 | 40.09 | 40.25 | 39.46    | 39.39      | 39.46     | 39.57    | 39.72   | 39.31 | 39.46 | 40.56 | 40.73 |
| 2030 | 41.73 | 41.92 | 41.80 | 40.68    | 40.90      | 39.75     | 39.91    | 40.06   | 40.25 | 40.41 | 41.59 | 41.77 |
| 2031 | 42.86 | 43.07 | 43.10 | 41.98    | 42.20      | 41.73     | 41.88    | 42.04   | 42.25 | 42.41 | 43.72 | 43.93 |
| 2032 | 45.01 | 45.20 | 45.33 | 44.16    | 44.34      | 44.38     | 44.55    | 44.73   | 44.93 | 45.11 | 46.39 | 46.61 |
| 2033 | 47.85 | 48.06 | 48.17 | 46.94    | 47.17      | 45.54     | 45.71    | 45.91   | 46.11 | 46.29 | 47.61 | 47.83 |
| 2034 | 48.91 | 49.14 | 47.67 | 46.43    | 46.66      | 46.22     | 46.41    | 46.59   | 46.81 | 47.00 | 48.46 | 48.67 |
| 2035 | 50.03 | 50.26 | 50.19 | 48.91    | 49.15      | 48.45     | 48.63    | 48.82   | 49.06 | 49.25 | 50.74 | 50.97 |
| 2036 | 51.59 | 51.83 | 51.76 | 50.44    | 50.71      | 49.98     | 50.18    | 50.38   | 50.61 | 50.81 | 52.34 | 52.55 |
| 2037 | 53.26 | 53.48 | 53.41 | 52.06    | 52.35      | 51.61     | 51.79    | 52.01   | 52.23 | 52.45 | 54.00 | 54.22 |
| 2038 | 54.97 | 55.20 | 55.12 | 53.77    | 54.04      | 53.27     | 53.49    | 53.69   | 53.93 | 54.14 | 55.73 | 55.96 |
| 2039 | 56.49 | 56.74 | 56.65 | 55.28    | 55.56      | 54.78     | 54.98    | 55.19   | 55.46 | 55.66 | 57.26 | 57.51 |
| 2040 | 58.37 | 58.61 | 58.54 | 57.12    | 57.39      | 56.62     | 56.82    | 57.03   | 57.28 | 57.51 | 59.15 | 59.40 |
| 2041 | 59.97 | 60.23 | 60.14 | 58.70    | 58.98      | 58.18     | 58.40    | 58.61   | 58.87 | 59.09 | 60.77 | 61.03 |

|      |       |       |       |         | 1         | TABLE 2a  | 1         |         |       |       |       |       |
|------|-------|-------|-------|---------|-----------|-----------|-----------|---------|-------|-------|-------|-------|
|      |       |       |       |         | Avo       | oided Cos | sts       |         |       |       |       |       |
|      |       |       |       | Standar | d Fixed I | Price Opt | ion for W | /ind QF |       |       |       |       |
|      |       |       |       |         | On-Peak   | Forecast  | (\$/MWH)  |         |       |       |       |       |
|      |       |       |       |         |           |           |           |         |       |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr     | May       | Jun       | Jul       | Aug     | Sep   | Oct   | Nov   | Dec   |
| 2017 | 38.90 | 26.30 | 15.20 | 8.65    | 12.80     | 14.80     | 25.80     | 29.80   | 26.30 | 23.30 | 25.30 | 31.80 |
| 2018 | 27.72 | 27.12 | 24.11 | 15.98   | 15.22     | 15.22     | 24.17     | 27.41   | 24.83 | 21.65 | 24.55 | 27.97 |
| 2019 | 28.30 | 27.69 | 24.62 | 16.33   | 15.56     | 15.56     | 24.68     | 27.98   | 25.35 | 22.11 | 25.07 | 28.55 |
| 2020 | 30.70 | 30.04 | 26.73 | 17.78   | 16.95     | 16.95     | 26.80     | 30.36   | 27.52 | 24.02 | 27.22 | 30.98 |
| 2021 | 25.66 | 25.45 | 25.25 | 24.18   | 23.99     | 24.00     | 24.05     | 24.10   | 24.18 | 24.42 | 25.01 | 25.69 |
| 2022 | 26.64 | 26.74 | 26.82 | 26.42   | 26.39     | 26.47     | 26.55     | 26.64   | 26.75 | 26.84 | 27.81 | 27.90 |
| 2023 | 29.20 | 29.31 | 29.41 | 28.78   | 28.83     | 28.94     | 29.03     | 29.12   | 29.24 | 29.34 | 30.40 | 30.51 |
| 2024 | 31.19 | 31.31 | 31.42 | 31.03   | 30.71     | 30.83     | 30.93     | 31.04   | 31.16 | 31.83 | 32.06 | 32.18 |
| 2025 | 33.01 | 33.15 | 33.27 | 33.34   | 32.53     | 32.57     | 32.69     | 32.81   | 32.93 | 33.06 | 33.90 | 34.03 |
| 2026 | 34.88 | 35.03 | 35.14 | 34.44   | 34.32     | 34.42     | 34.54     | 34.66   | 34.80 | 34.92 | 35.98 | 36.11 |
| 2027 | 37.01 | 37.15 | 37.29 | 36.56   | 36.41     | 36.48     | 36.60     | 36.73   | 36.90 | 37.02 | 38.16 | 38.30 |
| 2028 | 39.14 | 39.30 | 39.45 | 38.70   | 38.63     | 38.69     | 38.83     | 38.97   | 39.15 | 39.28 | 40.65 | 40.83 |
| 2029 | 42.02 | 42.19 | 42.35 | 41.56   | 41.49     | 41.56     | 41.67     | 41.83   | 41.42 | 41.56 | 42.67 | 42.84 |
| 2030 | 43.87 | 44.06 | 43.94 | 42.82   | 43.04     | 41.89     | 42.05     | 42.20   | 42.39 | 42.55 | 43.73 | 43.91 |
| 2031 | 45.04 | 45.24 | 45.28 | 44.16   | 44.37     | 43.91     | 44.06     | 44.22   | 44.42 | 44.59 | 45.90 | 46.10 |
| 2032 | 47.19 | 47.39 | 47.52 | 46.34   | 46.52     | 46.56     | 46.73     | 46.91   | 47.12 | 47.30 | 48.57 | 48.79 |
| 2033 | 50.13 | 50.34 | 50.44 | 49.21   | 49.44     | 47.82     | 47.99     | 48.18   | 48.38 | 48.56 | 49.88 | 50.10 |
| 2034 | 51.25 | 51.47 | 50.00 | 48.77   | 49.00     | 48.55     | 48.74     | 48.93   | 49.14 | 49.33 | 50.79 | 51.01 |
| 2035 | 52.38 | 52.62 | 52.55 | 51.26   | 51.51     | 50.81     | 50.99     | 51.18   | 51.41 | 51.61 | 53.10 | 53.33 |
| 2036 | 53.96 | 54.20 | 54.13 | 52.82   | 53.08     | 52.36     | 52.55     | 52.75   | 52.99 | 53.18 | 54.72 | 54.92 |
| 2037 | 55.70 | 55.93 | 55.86 | 54.51   | 54.79     | 54.05     | 54.24     | 54.45   | 54.68 | 54.89 | 56.44 | 56.67 |
| 2038 | 57.46 | 57.70 | 57.61 | 56.26   | 56.54     | 55.77     | 55.98     | 56.19   | 56.42 | 56.64 | 58.22 | 58.45 |
| 2039 | 59.04 | 59.29 | 59.20 | 57.82   | 58.10     | 57.32     | 57.53     | 57.73   | 58.00 | 58.21 | 59.81 | 60.06 |
| 2040 | 60.96 | 61.20 | 61.12 | 59.71   | 59.98     | 59.21     | 59.40     | 59.62   | 59.87 | 60.10 | 61.74 | 61.98 |
| 2041 | 62.61 | 62.87 | 62.78 | 61.35   | 61.63     | 60.83     | 61.04     | 61.26   | 61.52 | 61.73 | 63.41 | 63.67 |

|      |       |       |       |       | 1          | ABLE 2b  | )        |       |       |       |       |       |
|------|-------|-------|-------|-------|------------|----------|----------|-------|-------|-------|-------|-------|
|      |       |       |       |       | Ave        | oided Co | sts      |       |       |       |       |       |
|      |       |       |       |       | rd Fixed I |          |          |       |       |       |       |       |
|      |       |       |       | (     | Off-Peak   | Forecast | (\$/MWH) | )     |       |       |       |       |
|      | -     |       |       |       |            |          |          | -     |       |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr   | May        | Jun      | Jul      | Aug   | Sep   | Oct   | Nov   | Dec   |
| 2017 | 27.05 | 21.55 | 9.05  | 0.55  | 3.80       | 5.30     | 13.80    | 21.05 | 21.30 | 19.80 | 21.05 | 25.80 |
| 2018 | 20.83 | 22.67 | 20.25 | 11.67 | 7.93       | 6.26     | 13.67    | 20.17 | 20.07 | 18.14 | 20.59 | 22.68 |
| 2019 | 21.32 | 23.20 | 20.73 | 11.97 | 8.15       | 6.45     | 14.01    | 20.65 | 20.55 | 18.58 | 21.08 | 23.21 |
| 2020 | 23.75 | 25.82 | 23.09 | 13.41 | 9.19       | 7.30     | 15.67    | 23.00 | 22.89 | 20.71 | 23.48 | 25.84 |
| 2021 | 19.63 | 19.42 | 19.22 | 18.15 | 17.96      | 17.97    | 18.02    | 18.07 | 18.15 | 18.39 | 18.98 | 19.67 |
| 2022 | 20.50 | 20.59 | 20.68 | 20.28 | 20.24      | 20.33    | 20.40    | 20.50 | 20.60 | 20.70 | 21.66 | 21.76 |
| 2023 | 22.91 | 23.03 | 23.13 | 22.49 | 22.55      | 22.65    | 22.75    | 22.84 | 22.96 | 23.05 | 24.12 | 24.23 |
| 2024 | 24.83 | 24.95 | 25.06 | 24.66 | 24.34      | 24.47    | 24.56    | 24.67 | 24.79 | 25.47 | 25.70 | 25.82 |
| 2025 | 26.50 | 26.64 | 26.76 | 26.83 | 26.02      | 26.07    | 26.18    | 26.30 | 26.42 | 26.55 | 27.39 | 27.52 |
| 2026 | 28.25 | 28.39 | 28.51 | 27.81 | 27.68      | 27.79    | 27.90    | 28.03 | 28.17 | 28.29 | 29.34 | 29.48 |
| 2027 | 30.25 | 30.39 | 30.53 | 29.80 | 29.64      | 29.71    | 29.84    | 29.97 | 30.13 | 30.26 | 31.39 | 31.53 |
| 2028 | 32.25 | 32.40 | 32.56 | 31.81 | 31.74      | 31.80    | 31.94    | 32.08 | 32.26 | 32.39 | 33.76 | 33.94 |
| 2029 | 35.00 | 35.17 | 35.33 | 34.54 | 34.47      | 34.54    | 34.65    | 34.80 | 34.39 | 34.54 | 35.64 | 35.81 |
| 2030 | 36.71 | 36.90 | 36.78 | 35.66 | 35.88      | 34.73    | 34.89    | 35.04 | 35.23 | 35.39 | 36.57 | 36.75 |
| 2031 | 37.74 | 37.95 | 37.98 | 36.86 | 37.08      | 36.61    | 36.76    | 36.92 | 37.13 | 37.29 | 38.60 | 38.81 |
| 2032 | 39.80 | 39.99 | 40.12 | 38.95 | 39.13      | 39.17    | 39.34    | 39.52 | 39.72 | 39.90 | 41.18 | 41.40 |
| 2033 | 42.54 | 42.75 | 42.86 | 41.63 | 41.86      | 40.23    | 40.40    | 40.60 | 40.80 | 40.98 | 42.30 | 42.52 |
| 2034 | 43.49 | 43.72 | 42.25 | 41.01 | 41.24      | 40.80    | 40.99    | 41.17 | 41.39 | 41.58 | 43.04 | 43.25 |
| 2035 | 44.51 | 44.74 | 44.67 | 43.39 | 43.63      | 42.93    | 43.11    | 43.30 | 43.54 | 43.73 | 45.22 | 45.45 |
| 2036 | 45.96 | 46.20 | 46.13 | 44.81 | 45.08      | 44.35    | 44.55    | 44.75 | 44.98 | 45.18 | 46.71 | 46.92 |
| 2037 | 47.52 | 47.74 | 47.67 | 46.32 | 46.61      | 45.87    | 46.05    | 46.27 | 46.49 | 46.71 | 48.26 | 48.48 |
| 2038 | 49.12 | 49.35 | 49.27 | 47.92 | 48.19      | 47.42    | 47.64    | 47.84 | 48.08 | 48.29 | 49.88 | 50.11 |
| 2039 | 50.53 | 50.78 | 50.69 | 49.32 | 49.60      | 48.82    | 49.02    | 49.23 | 49.50 | 49.70 | 51.30 | 51.55 |
| 2040 | 52.29 | 52.53 | 52.46 | 51.04 | 51.31      | 50.54    | 50.74    | 50.95 | 51.20 | 51.43 | 53.07 | 53.32 |
| 2041 | 53.78 | 54.04 | 53.95 | 52.51 | 52.79      | 51.99    | 52.21    | 52.42 | 52.68 | 52.90 | 54.58 | 54.84 |

|      |       |       |       |         | ٦         | TABLE 3a  | I         |         |       |       |       |       |
|------|-------|-------|-------|---------|-----------|-----------|-----------|---------|-------|-------|-------|-------|
|      |       |       |       |         | Ave       | oided Co  | sts       |         |       |       |       |       |
|      |       |       |       | Standar | d Fixed I | Price Opt | ion for S | olar QF |       |       |       |       |
|      |       |       |       | (       | On-Peak   | Forecast  | (\$/MWH)  |         |       |       |       |       |
|      |       |       |       |         |           |           |           |         |       |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr     | Мау       | Jun       | Jul       | Aug     | Sep   | Oct   | Nov   | Dec   |
| 2017 | 42.81 | 30.21 | 19.11 | 12.56   | 16.71     | 18.71     | 29.71     | 33.71   | 30.21 | 27.21 | 29.21 | 35.71 |
| 2018 | 31.71 | 31.11 | 28.10 | 19.97   | 19.21     | 19.21     | 28.16     | 31.40   | 28.82 | 25.64 | 28.54 | 31.96 |
| 2019 | 32.37 | 31.76 | 28.69 | 20.40   | 19.63     | 19.63     | 28.75     | 32.05   | 29.42 | 26.18 | 29.14 | 32.62 |
| 2020 | 34.85 | 34.19 | 30.88 | 21.93   | 21.10     | 21.10     | 30.95     | 34.51   | 31.67 | 28.17 | 31.37 | 35.13 |
| 2021 | 28.96 | 28.74 | 28.54 | 27.48   | 27.28     | 27.29     | 27.34     | 27.39   | 27.48 | 27.71 | 28.31 | 28.99 |
| 2022 | 30.00 | 30.09 | 30.18 | 29.78   | 29.75     | 29.83     | 29.90     | 30.00   | 30.11 | 30.20 | 31.16 | 31.26 |
| 2023 | 32.61 | 32.73 | 32.83 | 32.19   | 32.25     | 32.35     | 32.45     | 32.54   | 32.65 | 32.75 | 33.82 | 33.93 |
| 2024 | 34.67 | 34.80 | 34.91 | 34.51   | 34.19     | 34.31     | 34.41     | 34.52   | 34.64 | 35.31 | 35.54 | 35.66 |
| 2025 | 36.56 | 36.70 | 36.82 | 36.89   | 36.08     | 36.12     | 36.24     | 36.36   | 36.48 | 36.61 | 37.45 | 37.58 |
| 2026 | 38.50 | 38.65 | 38.76 | 38.06   | 37.94     | 38.04     | 38.16     | 38.28   | 38.42 | 38.54 | 39.60 | 39.73 |
| 2027 | 40.70 | 40.84 | 40.98 | 40.25   | 40.10     | 40.17     | 40.29     | 40.42   | 40.59 | 40.71 | 41.85 | 41.99 |
| 2028 | 42.90 | 43.06 | 43.21 | 42.46   | 42.39     | 42.45     | 42.59     | 42.74   | 42.91 | 43.04 | 44.41 | 44.59 |
| 2029 | 45.85 | 46.02 | 46.18 | 45.39   | 45.32     | 45.39     | 45.50     | 45.66   | 45.25 | 45.39 | 46.50 | 46.67 |
| 2030 | 47.78 | 47.97 | 47.84 | 46.73   | 46.95     | 45.80     | 45.96     | 46.11   | 46.30 | 46.46 | 47.63 | 47.82 |
| 2031 | 49.03 | 49.23 | 49.27 | 48.15   | 48.36     | 47.89     | 48.05     | 48.21   | 48.41 | 48.58 | 49.89 | 50.09 |
| 2032 | 51.26 | 51.45 | 51.58 | 50.41   | 50.59     | 50.63     | 50.79     | 50.97   | 51.18 | 51.36 | 52.63 | 52.85 |
| 2033 | 54.26 | 54.47 | 54.58 | 53.34   | 53.58     | 51.95     | 52.12     | 52.32   | 52.51 | 52.70 | 54.01 | 54.23 |
| 2034 | 55.46 | 55.69 | 54.22 | 52.98   | 53.21     | 52.77     | 52.96     | 53.15   | 53.36 | 53.55 | 55.01 | 55.22 |
| 2035 | 56.68 | 56.91 | 56.85 | 55.56   | 55.81     | 55.11     | 55.29     | 55.48   | 55.71 | 55.90 | 57.39 | 57.63 |
| 2036 | 58.35 | 58.59 | 58.52 | 57.21   | 57.47     | 56.75     | 56.94     | 57.14   | 57.38 | 57.57 | 59.10 | 59.31 |
| 2037 | 60.17 | 60.40 | 60.33 | 58.98   | 59.26     | 58.52     | 58.71     | 58.92   | 59.15 | 59.36 | 60.91 | 61.14 |
| 2038 | 62.02 | 62.25 | 62.16 | 60.82   | 61.09     | 60.32     | 60.54     | 60.74   | 60.98 | 61.19 | 62.77 | 63.01 |
| 2039 | 63.68 | 63.93 | 63.84 | 62.46   | 62.74     | 61.96     | 62.17     | 62.37   | 62.64 | 62.85 | 64.45 | 64.70 |
| 2040 | 65.69 | 65.94 | 65.86 | 64.44   | 64.71     | 63.94     | 64.14     | 64.35   | 64.61 | 64.83 | 66.48 | 66.72 |
| 2041 | 67.43 | 67.69 | 67.60 | 66.17   | 66.45     | 65.65     | 65.86     | 66.08   | 66.34 | 66.55 | 68.23 | 68.49 |

|      |       |       |       |         | 1         | ABLE 3b   | )         |         |       |       |       |       |
|------|-------|-------|-------|---------|-----------|-----------|-----------|---------|-------|-------|-------|-------|
|      |       |       |       |         | Ave       | oided Co  | sts       |         |       |       |       |       |
|      |       |       |       | Standar | d Fixed I | Price Opt | ion for S | olar QF |       |       |       |       |
|      |       |       |       | C       | Off-Peak  | Forecast  | (\$/MWH)  |         |       |       |       |       |
|      |       |       |       |         |           |           |           |         |       |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr     | May       | Jun       | Jul       | Aug     | Sep   | Oct   | Nov   | Dec   |
| 2017 | 30.96 | 25.46 | 12.96 | 4.46    | 7.71      | 9.21      | 17.71     | 24.96   | 25.21 | 23.71 | 24.96 | 29.71 |
| 2018 | 24.82 | 26.66 | 24.24 | 15.66   | 11.92     | 10.25     | 17.66     | 24.16   | 24.06 | 22.13 | 24.58 | 26.67 |
| 2019 | 25.39 | 27.27 | 24.80 | 16.04   | 12.22     | 10.52     | 18.08     | 24.72   | 24.62 | 22.65 | 25.15 | 27.28 |
| 2020 | 27.90 | 29.97 | 27.24 | 17.56   | 13.34     | 11.45     | 19.82     | 27.15   | 27.04 | 24.86 | 27.63 | 29.99 |
| 2021 | 23.86 | 23.65 | 23.45 | 22.38   | 22.19     | 22.20     | 22.25     | 22.30   | 22.38 | 22.62 | 23.21 | 23.90 |
| 2022 | 24.81 | 24.90 | 24.99 | 24.59   | 24.55     | 24.64     | 24.71     | 24.81   | 24.91 | 25.01 | 25.97 | 26.07 |
| 2023 | 27.30 | 27.42 | 27.52 | 26.88   | 26.94     | 27.04     | 27.14     | 27.23   | 27.35 | 27.44 | 28.51 | 28.62 |
| 2024 | 29.30 | 29.42 | 29.53 | 29.13   | 28.81     | 28.94     | 29.03     | 29.14   | 29.26 | 29.94 | 30.17 | 30.29 |
| 2025 | 31.06 | 31.20 | 31.32 | 31.39   | 30.58     | 30.63     | 30.74     | 30.86   | 30.98 | 31.11 | 31.95 | 32.08 |
| 2026 | 32.90 | 33.04 | 33.16 | 32.46   | 32.33     | 32.44     | 32.55     | 32.68   | 32.82 | 32.94 | 33.99 | 34.13 |
| 2027 | 34.99 | 35.13 | 35.27 | 34.54   | 34.38     | 34.45     | 34.58     | 34.71   | 34.87 | 35.00 | 36.13 | 36.27 |
| 2028 | 37.08 | 37.23 | 37.39 | 36.64   | 36.57     | 36.63     | 36.77     | 36.91   | 37.09 | 37.22 | 38.59 | 38.77 |
| 2029 | 39.92 | 40.09 | 40.25 | 39.46   | 39.39     | 39.46     | 39.57     | 39.72   | 39.31 | 39.46 | 40.56 | 40.73 |
| 2030 | 41.73 | 41.92 | 41.80 | 40.68   | 40.90     | 39.75     | 39.91     | 40.06   | 40.25 | 40.41 | 41.59 | 41.77 |
| 2031 | 42.86 | 43.07 | 43.10 | 41.98   | 42.20     | 41.73     | 41.88     | 42.04   | 42.25 | 42.41 | 43.72 | 43.93 |
| 2032 | 45.01 | 45.20 | 45.33 | 44.16   | 44.34     | 44.38     | 44.55     | 44.73   | 44.93 | 45.11 | 46.39 | 46.61 |
| 2033 | 47.85 | 48.06 | 48.17 | 46.94   | 47.17     | 45.54     | 45.71     | 45.91   | 46.11 | 46.29 | 47.61 | 47.83 |
| 2034 | 48.91 | 49.14 | 47.67 | 46.43   | 46.66     | 46.22     | 46.41     | 46.59   | 46.81 | 47.00 | 48.46 | 48.67 |
| 2035 | 50.03 | 50.26 | 50.19 | 48.91   | 49.15     | 48.45     | 48.63     | 48.82   | 49.06 | 49.25 | 50.74 | 50.97 |
| 2036 | 51.59 | 51.83 | 51.76 | 50.44   | 50.71     | 49.98     | 50.18     | 50.38   | 50.61 | 50.81 | 52.34 | 52.55 |
| 2037 | 53.26 | 53.48 | 53.41 | 52.06   | 52.35     | 51.61     | 51.79     | 52.01   | 52.23 | 52.45 | 54.00 | 54.22 |
| 2038 | 54.97 | 55.20 | 55.12 | 53.77   | 54.04     | 53.27     | 53.49     | 53.69   | 53.93 | 54.14 | 55.73 | 55.96 |
| 2039 | 56.49 | 56.74 | 56.65 | 55.28   | 55.56     | 54.78     | 54.98     | 55.19   | 55.46 | 55.66 | 57.26 | 57.51 |
| 2040 | 58.37 | 58.61 | 58.54 | 57.12   | 57.39     | 56.62     | 56.82     | 57.03   | 57.28 | 57.51 | 59.15 | 59.40 |
| 2041 | 59.97 | 60.23 | 60.14 | 58.70   | 58.98     | 58.18     | 58.40     | 58.61   | 58.87 | 59.09 | 60.77 | 61.03 |

#### PRICING OPTIONS FOR STANDARD PPA (Continued)

#### 2) Renewable Fixed Price Option

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

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

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

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

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

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

Sellers with PPAs 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)

|      |   |        |        |         | 1         | ABLE 4    | 1         |          |        |        |        |        |  |  |  |
|------|---|--------|--------|---------|-----------|-----------|-----------|----------|--------|--------|--------|--------|--|--|--|
|      |   |        |        |         | Renewab   | le Avoide | d Costs   |          |        |        |        |        |  |  |  |
|      |   |        | Re     | newable | Fixed Pr  | ice Optio | n for Bas | e Load C | ۱F     |        |        |        |  |  |  |
|      |   |        |        | (       | On-Peak I | Forecast  | (\$/MWH)  |          |        |        |        |        |  |  |  |
|      |   |        |        | -       |           | -         |           | -        |        |        |        |        |  |  |  |
| Year | Jan   | Feb    | Mar    | Apr     | May       | Jun       | Jul       | Aug      | Sep    | Oct    | Nov    | Dec    |  |  |  |
| 2017 | 31.96   | 31.36  | 28.35  | 20.22   | 19.46     | 19.46     | 28.41     | 31.65    | 29.07  | 25.89  | 28.79  | 32.21  |  |  |  |
| 2018 | 32.63   | 32.02  | 28.95  | 20.66   | 19.89     | 19.89     | 29.01     | 32.31    | 29.68  | 26.44  | 29.40  | 32.88  |  |  |  |
| 2019 | 35.13   | 34.47  | 31.16  | 22.21   | 21.38     | 21.38     | 31.23     | 34.79    | 31.95  | 28.45  | 31.65  | 35.41  |  |  |  |
| 2020 | 105.59  | 105.58 | 104.91 | 105.31  | 108.12    | 107.33    | 107.05    | 106.95   | 105.82 | 104.97 | 105.70 | 104.81 |  |  |  |
| 2021 | 107.97  | 108.18 | 106.86 | 107.80  | 110.30    | 109.63    | 109.13    | 109.57   | 108.25 | 107.36 | 108.50 | 107.34 |  |  |  |
| 2022 | 110.29  | 110.18 | 108.51 | 110.03  | 112.64    | 111.74    | 111.34    | 111.31   | 110.35 | 109.47 | 110.72 | 109.45 |  |  |  |
| 2023 | 112.83  | 112.45 | 110.71 | 112.53  | 114.68    | 114.03    | 113.73    | 113.41   | 112.67 | 111.65 | 113.16 | 112.19 |  |  |  |
| 2024 | <b>2024</b> 114.30 114.43 112.71 114.48 116.87 115.98 115.88 115.65 115.49 113.39 114.27 114.38 |        |        |         |           |           |           |          |        |        |        |        |  |  |  |
| 2025 | 116.91  | 117.20 | 115.28 | 117.34  | 120.36    | 119.33    | 118.49    | 118.61   | 117.89 | 115.92 | 116.94 | 116.63 |  |  |  |
| 2026 | 119.80  | 119.51 | 118.23 | 120.15  | 124.05    | 121.00    | 121.00    | 121.36   | 121.11 | 118.42 | 120.03 | 119.20 |  |  |  |
| 2027 | 122.14  | 121.76 | 120.31 | 122.17  | 127.41    | 123.38    | 123.05    | 124.32   | 123.30 | 120.82 | 121.96 | 121.54 |  |  |  |
| 2028 | 124.42  | 123.50 | 121.73 | 124.67  | 129.54    | 125.27    | 125.89    | 125.90   | 125.14 | 123.37 | 124.32 | 123.63 |  |  |  |
| 2029 | 127.02  | 126.81 | 124.48 | 127.44  | 136.23    | 128.72    | 128.78    | 128.78   | 128.83 | 125.88 | 126.59 | 126.49 |  |  |  |
| 2030 | 129.65  | 129.39 | 127.38 | 129.92  | 139.73    | 132.73    | 130.84    | 130.74   | 131.95 | 128.33 | 128.82 | 128.86 |  |  |  |
| 2031 | 132.04  | 131.60 | 130.17 | 133.11  | 142.39    | 136.41    | 133.28    | 134.11   | 134.29 | 130.94 | 131.91 | 131.53 |  |  |  |
| 2032 | 134.05  | 133.61 | 132.16 | 135.15  | 144.58    | 138.50    | 135.32    | 136.16   | 136.35 | 132.94 | 133.93 | 133.54 |  |  |  |
| 2033 | 137.18  | 136.73 | 135.24 | 138.30  | 147.94    | 141.72    | 138.47    | 139.33   | 139.53 | 136.04 | 137.05 | 136.65 |  |  |  |
| 2034 | 139.98  | 139.52 | 138.00 | 141.12  | 150.95    | 144.61    | 141.30    | 142.17   | 142.37 | 138.82 | 139.85 | 139.44 |  |  |  |
| 2035 | 142.53  | 142.06 | 140.51 | 143.69  | 153.71    | 147.25    | 143.87    | 144.76   | 144.97 | 141.35 | 142.39 | 141.98 |  |  |  |
| 2036 | 144.86  | 144.38 | 142.81 | 146.04  | 156.22    | 149.66    | 146.23    | 147.13   | 147.34 | 143.66 | 144.72 | 144.30 |  |  |  |
| 2037 | 148.08  | 147.59 | 145.99 | 149.29  | 159.70    | 152.99    | 149.48    | 150.41   | 150.62 | 146.85 | 147.94 | 147.51 |  |  |  |
| 2038 | 150.94  | 150.44 | 148.81 | 152.17  | 162.78    | 155.94    | 152.36    | 153.31   | 153.52 | 149.69 | 150.80 | 150.36 |  |  |  |
| 2039 | 153.85  | 153.34 | 151.68 | 155.11  | 165.92    | 158.95    | 155.30    | 156.27   | 156.48 | 152.58 | 153.71 | 153.26 |  |  |  |
| 2040 | 156.54  | 156.02 | 154.33 | 157.81  | 168.81    | 161.72    | 158.01    | 158.99   | 159.21 | 155.24 | 156.39 | 155.94 |  |  |  |
| 2041 | 159.85  | 159.32 | 157.59 | 161.15  | 172.39    | 165.14    | 161.36    | 162.36   | 162.58 | 158.52 | 159.70 | 159.24 |  |  |  |

|              |                |                |                     |                     | Т              | ABLE 4b             |                |                |                  |              |              |                |
|--------------|----------------|----------------|---------------------|---------------------|----------------|---------------------|----------------|----------------|------------------|--------------|--------------|----------------|
|              |                |                |                     |                     |                | le Avoide           |                |                |                  |              |              |                |
|              |                |                | Re                  |                     |                | ce Optio            |                |                | F                |              |              |                |
|              |                |                |                     | C                   | Off-Peak F     | Forecast            | (\$/MWH)       |                |                  |              |              |                |
| Veer         | lan            | Tab            | Mar                 | A                   | Max            | lum                 | 11             | A              | Sen              | 0.00         | Nev          | Dee            |
| Year<br>2017 | Jan<br>25.07   | Feb<br>26.91   | <b>Mar</b><br>24.49 | <b>Apr</b><br>15.91 | May<br>12.17   | <b>Jun</b><br>10.50 | Jul<br>17.91   | Aug<br>24.41   | <b>Sep</b> 24.31 | Oct<br>22.38 | Nov<br>24.83 | Dec<br>26.92   |
| 2017         | 25.65          | 20.91          | 24.49               | 16.30               | 12.17          | 10.30               | 17.91          | 24.41          | 24.31            | 22.30        | 24.83        | 20.92          |
| 2018         | 28.18          | 30.25          | 25.00               | 17.84               | 12.40          | 11.73               | 20.10          | 24.90          | 24.88            | 25.14        | 27.91        | 30.27          |
|              | 55.06          | 55.29          | 56.65               | 55.55               | 52.58          | 52.78               | 53.04          | 54.06          | 54.85            | 55.93        | 55.76        | 56.14          |
| 2020<br>2021 | 55.08<br>56.97 | 55.29<br>56.29 | 57.78               | 56.57               | 52.58<br>54.03 | 52.78<br>54.07      | 53.04<br>54.64 | 54.00<br>54.94 | 54.85<br>55.96   | 55.95        | 55.61        | 57.11          |
| 2021         | 57.78          | 57.49          | 59.46               | 57.46               | 54.03<br>54.79 | 54.07<br>55.12      |                | 55.58          | 57.03            | 58.82        | 56.52        | 58.16          |
| 2022         | 58.53          | 57.49          | 60.63               | 59.03               | 54.79<br>55.13 | 56.12               | 56.44<br>57.38 | 56.90          | 58.03            | 60.02        | 57.37        | 59.34          |
| 2023         | 59.00          | 59.06          | 61.83               | 59.03               | 55.44          | 57.84               | 56.81          | 57.13          | 58.45            | 60.02        | 59.15        | 59.34<br>59.71 |
| 2024         | 60.20          | 60.19          | 63.12               | 59.74               | 55.43          | 58.15               | 58.02          | 58.89          | 58.99            | 61.58        | 61.14        | 60.59          |
| 2025         | 60.49          | 61.29          | 63.41               | 60.15               | 56.02          | 58.98               | 58.83          | 59.45          | 58.83            | 62.40        | 61.28        | 61.32          |
| 2020         | 62.57          | 62.55          | 64.16               | 61.72               | 55.88          | 60.06               | 60.36          | 59.81          | 60.16            | 64.24        | 62.01        | 62.45          |
| 2027         | 63.42          | 63.96          | 66.16               | 63.26               | 55.35          | 61.40               | 61.55          | 60.38          | 61.59            | 64.74        | 62.71        | 64.41          |
| 2020         | 63.86          | 64.58          | 67.38               | 64.49               | 51.11          | 61.67               | 62.62          | 61.41          | 62.76            | 65.44        | 64.59        | 65.53          |
| 2020         | 64.85          | 65.65          | 68.76               | 64.61               | 50.89          | 62.20               | 63.19          | 63.34          | 63.17            | 66.67        | 66.12        | 66.88          |
| 2031         | 66.26          | 67.30          | 69.67               | 64.93               | 51.92          | 62.00               | 64.53          | 64.67          | 63.31            | 67.77        | 67.62        | 66.96          |
| 2032         | 67.35          | 68.41          | 70.82               | 66.00               | 52.77          | 63.03               | 65.60          | 65.74          | 64.36            | 68.89        | 68.74        | 68.06          |
| 2033         | 68.84          | 69.92          | 72.38               | 67.46               | 53.94          | 64.42               | 67.05          | 67.19          | 65.78            | 70.41        | 70.26        | 69.57          |
| 2034         | 70.17          | 71.27          | 73.78               | 68.76               | 54.98          | 65.66               | 68.34          | 68.49          | 67.05            | 71.77        | 71.61        | 70.91          |
| 2035         | 71.52          | 72.65          | 75.20               | 70.09               | 56.04          | 66.93               | 69.66          | 69.81          | 68.34            | 73.16        | 73.00        | 72.28          |
| 2036         | 72.70          | 73.85          | 76.45               | 71.25               | 56.97          | 68.03               | 70.81          | 70.97          | 69.47            | 74.37        | 74.20        | 73.47          |
| 2037         | 74.31          | 75.48          | 78.13               | 72.82               | 58.22          | 69.54               | 72.37          | 72.53          | 71.01            | 76.01        | 75.84        | 75.10          |
| 2038         | 75.74          | 76.94          | 79.64               | 74.23               | 59.35          | 70.88               | 73.77          | 73.93          | 72.38            | 77.48        | 77.30        | 76.55          |
| 2039         | 77.20          | 78.42          | 81.18               | 75.66               | 60.49          | 72.25               | 75.20          | 75.36          | 73.77            | 78.97        | 78.80        | 78.02          |
| 2040         | 78.48          | 79.72          | 82.52               | 76.91               | 61.49          | 73.44               | 76.44          | 76.61          | 74.99            | 80.27        | 80.10        | 79.31          |
| 2041         | 80.21          | 81.48          | 84.34               | 78.61               | 62.85          | 75.06               | 78.13          | 78.30          | 76.65            | 82.05        | 81.87        | 81.06          |

|      |       |       |       |         | T.       | ABLE 5a   |         |        |        |       |       |       |
|------|-------|-------|-------|---------|----------|-----------|---------|--------|--------|-------|-------|-------|
|      |       |       |       | F       | Renewabl | e Avoide  | d Costs |        |        |       |       |       |
|      |       |       | ŀ     | Renewab |          |           |         | ind QF |        |       |       |       |
|      |       |       |       | 0       | n-Peak F | orecast ( | \$/MWH) |        |        |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr     | May      | Jun       | Jul     | Aug    | Sep    | Oct   | Nov   | Dec   |
| 2017 | 28.05 | 27.45 | 24.44 | 16.31   | 15.55    | 15.55     | 24.50   | 27.74  | 25.16  | 21.98 | 24.88 | 28.30 |
| 2018 | 28.64 | 28.03 | 24.96 | 16.67   | 15.90    | 15.90     | 25.02   | 28.32  | 25.69  | 22.45 | 25.41 | 28.89 |
| 2019 | 31.06 | 30.40 | 27.09 | 18.14   | 17.31    | 17.31     | 27.16   | 30.72  | 27.88  | 24.38 | 27.58 | 31.34 |
| 2020 | 65.63 | 65.62 | 64.95 | 65.35   | 68.16    | 67.37     | 67.09   | 66.99  | 65.86  | 65.01 | 65.74 | 64.85 |
| 2021 | 67.13 | 67.33 | 66.01 | 66.95   | 69.45    | 68.79     | 68.28   | 68.73  | 67.40  | 66.52 | 67.66 | 66.49 |
| 2022 | 68.65 | 68.54 | 66.88 | 68.40   | 71.01    | 70.11     | 69.71   | 69.68  | 68.71  | 67.83 | 69.09 | 67.82 |
| 2023 | 70.27 | 69.89 | 68.16 | 69.98   | 72.13    | 71.48     | 71.17   | 70.85  | 70.12  | 69.10 | 70.60 | 69.63 |
| 2024 | 71.17 | 71.30 | 69.58 | 71.35   | 73.75    | 72.85     | 72.75   | 72.52  | 72.36  | 70.27 | 71.15 | 71.26 |
| 2025 | 72.83 | 73.12 | 71.19 | 73.26   | 76.28    | 75.24     | 74.41   | 74.52  | 73.80  | 71.83 | 72.86 | 72.55 |
| 2026 | 74.86 | 74.57 | 73.29 | 75.21   | 79.12    | 76.06     | 76.06   | 76.42  | 76.17  | 73.48 | 75.09 | 74.26 |
| 2027 | 76.34 | 75.95 | 74.50 | 76.36   | 81.61    | 77.57     | 77.25   | 78.51  | 77.50  | 75.01 | 76.15 | 75.73 |
| 2028 | 77.73 | 76.81 | 75.04 | 77.98   | 82.85    | 78.58     | 79.21   | 79.22  | 78.45  | 76.68 | 77.63 | 76.94 |
| 2029 | 79.43 | 79.22 | 76.89 | 79.86   | 88.64    | 81.13     | 81.20   | 81.20  | 81.24  | 78.29 | 79.00 | 78.91 |
| 2030 | 81.14 | 80.88 | 78.87 | 81.41   | 91.22    | 84.22     | 82.33   | 82.23  | 83.44  | 79.82 | 80.31 | 80.35 |
| 2031 | 82.59 | 82.15 | 80.72 | 83.66   | 92.94    | 86.96     | 83.83   | 84.66  | 84.84  | 81.49 | 82.46 | 82.08 |
| 2032 | 83.94 | 83.50 | 82.05 | 85.04   | 94.47    | 88.39     | 85.21   | 86.05  | 86.24  | 82.83 | 83.82 | 83.43 |
| 2033 | 85.81 | 85.36 | 83.88 | 86.93   | 96.58    | 90.36     | 87.11   | 87.97  | 88.16  | 84.68 | 85.69 | 85.29 |
| 2034 | 87.46 | 87.00 | 85.49 | 88.60   | 98.43    | 92.09     | 88.78   | 89.66  | 89.85  | 86.30 | 87.33 | 86.93 |
| 2035 | 89.16 | 88.68 | 87.14 | 90.32   | 100.34   | 93.88     | 90.50   | 91.39  | 91.59  | 87.97 | 89.02 | 88.61 |
| 2036 | 90.61 | 90.13 | 88.56 | 91.79   | 101.97   | 95.41     | 91.98   | 92.88  | 93.09  | 89.41 | 90.47 | 90.05 |
| 2037 | 92.63 | 92.14 | 90.53 | 93.83   | 104.24   | 97.53     | 94.02   | 94.95  | 95.16  | 91.40 | 92.49 | 92.06 |
| 2038 | 94.41 | 93.91 | 92.28 | 95.64   | 106.25   | 99.41     | 95.84   | 96.78  | 97.00  | 93.16 | 94.27 | 93.83 |
| 2039 | 96.24 | 95.73 | 94.07 | 97.49   | 108.31   | 101.33    | 97.69   | 98.65  | 98.87  | 94.96 | 96.09 | 95.65 |
| 2040 | 97.81 | 97.29 | 95.60 | 99.08   | 110.08   | 102.99    | 99.28   | 100.26 | 100.48 | 96.51 | 97.66 | 97.21 |
| 2041 | 99.99 | 99.46 | 97.73 | 101.29  | 112.53   | 105.29    | 101.50  | 102.50 | 102.73 | 98.67 | 99.84 | 99.38 |

|      |       |       |       |       | Т         | ABLE 5b   |         |        |       |       |       |       |
|------|-------|-------|-------|-------|-----------|-----------|---------|--------|-------|-------|-------|-------|
|      |       |       |       | R     | Renewable | e Avoide  | d Costs |        |       |       |       |       |
|      |       |       | F     |       | e Fixed F | •         |         | ind QF |       |       |       |       |
|      |       |       |       | 0     | ff-Peak F | orecast ( | \$/MWH) |        |       |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr   | May       | Jun       | Jul     | Aug    | Sep   | Oct   | Nov   | Dec   |
| 2017 | 21.23 | 23.07 | 20.65 | 12.07 | 8.33      | 6.66      | 14.07   | 20.57  | 20.47 | 18.54 | 20.99 | 23.08 |
| 2018 | 21.74 | 23.62 | 21.15 | 12.39 | 8.57      | 6.87      | 14.43   | 21.07  | 20.97 | 19.00 | 21.50 | 23.63 |
| 2019 | 24.19 | 26.26 | 23.53 | 13.85 | 9.63      | 7.74      | 16.11   | 23.44  | 23.33 | 21.15 | 23.92 | 26.28 |
| 2020 | 50.91 | 51.14 | 52.50 | 51.40 | 48.43     | 48.63     | 48.89   | 49.91  | 50.70 | 51.78 | 51.61 | 51.99 |
| 2021 | 52.74 | 52.06 | 53.55 | 52.34 | 49.80     | 49.84     | 50.41   | 50.71  | 51.73 | 53.52 | 51.38 | 52.88 |
| 2022 | 53.47 | 53.18 | 55.15 | 53.15 | 50.48     | 50.81     | 52.13   | 51.27  | 52.72 | 54.51 | 52.21 | 53.85 |
| 2023 | 54.14 | 54.18 | 56.24 | 54.64 | 50.74     | 51.77     | 52.99   | 52.51  | 53.64 | 55.63 | 52.98 | 54.95 |
| 2024 | 54.53 | 54.59 | 57.36 | 54.40 | 50.97     | 53.37     | 52.34   | 52.66  | 53.98 | 55.79 | 54.68 | 55.24 |
| 2025 | 55.64 | 55.63 | 58.56 | 55.18 | 50.87     | 53.59     | 53.46   | 54.33  | 54.43 | 57.02 | 56.58 | 56.03 |
| 2026 | 55.84 | 56.64 | 58.76 | 55.50 | 51.37     | 54.33     | 54.18   | 54.80  | 54.18 | 57.75 | 56.63 | 56.67 |
| 2027 | 57.83 | 57.81 | 59.42 | 56.98 | 51.14     | 55.32     | 55.62   | 55.07  | 55.42 | 59.50 | 57.27 | 57.71 |
| 2028 | 58.59 | 59.13 | 61.33 | 58.43 | 50.52     | 56.57     | 56.72   | 55.55  | 56.76 | 59.91 | 57.88 | 59.58 |
| 2029 | 58.94 | 59.66 | 62.46 | 59.57 | 46.19     | 56.75     | 57.70   | 56.49  | 57.84 | 60.52 | 59.67 | 60.61 |
| 2030 | 59.83 | 60.63 | 63.74 | 59.59 | 45.87     | 57.18     | 58.17   | 58.32  | 58.15 | 61.65 | 61.10 | 61.86 |
| 2031 | 61.14 | 62.18 | 64.55 | 59.81 | 46.80     | 56.88     | 59.41   | 59.55  | 58.19 | 62.65 | 62.50 | 61.84 |
| 2032 | 62.14 | 63.20 | 65.61 | 60.79 | 47.56     | 57.82     | 60.39   | 60.53  | 59.15 | 63.68 | 63.53 | 62.85 |
| 2033 | 63.53 | 64.61 | 67.07 | 62.15 | 48.63     | 59.11     | 61.74   | 61.88  | 60.47 | 65.10 | 64.95 | 64.26 |
| 2034 | 64.75 | 65.85 | 68.36 | 63.34 | 49.56     | 60.24     | 62.92   | 63.07  | 61.63 | 66.35 | 66.19 | 65.49 |
| 2035 | 66.00 | 67.13 | 69.68 | 64.57 | 50.52     | 61.41     | 64.14   | 64.29  | 62.82 | 67.64 | 67.48 | 66.76 |
| 2036 | 67.07 | 68.22 | 70.82 | 65.62 | 51.34     | 62.40     | 65.18   | 65.34  | 63.84 | 68.74 | 68.57 | 67.84 |
| 2037 | 68.57 | 69.74 | 72.39 | 67.08 | 52.48     | 63.80     | 66.63   | 66.79  | 65.27 | 70.27 | 70.10 | 69.36 |
| 2038 | 69.89 | 71.09 | 73.79 | 68.38 | 53.50     | 65.03     | 67.92   | 68.08  | 66.53 | 71.63 | 71.45 | 70.70 |
| 2039 | 71.24 | 72.46 | 75.22 | 69.70 | 54.53     | 66.29     | 69.24   | 69.40  | 67.81 | 73.01 | 72.84 | 72.06 |
| 2040 | 72.40 | 73.64 | 76.44 | 70.83 | 55.41     | 67.36     | 70.36   | 70.53  | 68.91 | 74.19 | 74.02 | 73.23 |
| 2041 | 74.02 | 75.29 | 78.15 | 72.42 | 56.66     | 68.87     | 71.94   | 72.11  | 70.46 | 75.86 | 75.68 | 74.87 |

|         |        |        |        |          | T          | ABLE 6a   |           |         |        |        |        |        |
|---------|--------|--------|--------|----------|------------|-----------|-----------|---------|--------|--------|--------|--------|
|         |        |        |        | F        | Renewabl   | e Avoide  | d Costs   |         |        |        |        |        |
|         |        |        |        | Renewab  | le Fixed I | Price Opt | ion for S | olar QF |        |        |        |        |
|         |        |        |        | 0        | n-Peak F   | orecast   | (\$/MWH)  |         |        |        |        |        |
| . Ye en |        | E . I. |        | <b>A</b> |            |           | 1.1       | A       | 0      | 0.1    | News   | Dea    |
| 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  |
| 2032    | 88.01  | 87.56  | 86.11  | 89.10    | 98.54      | 92.45     | 89.27     | 90.11   | 90.30  | 86.90  | 87.88  | 87.49  |
| 2033    | 89.95  | 89.49  | 88.01  | 91.06    | 100.71     | 94.49     | 91.24     | 92.10   | 92.29  | 88.81  | 89.82  | 89.42  |
| 2034    | 91.68  | 91.22  | 89.70  | 92.82    | 102.65     | 96.31     | 93.00     | 93.87   | 94.07  | 90.52  | 91.55  | 91.14  |
| 2035    | 93.45  | 92.98  | 91.44  | 94.61    | 104.63     | 98.17     | 94.80     | 95.69   | 95.89  | 92.27  | 93.32  | 92.91  |
| 2036    | 95.00  | 94.52  | 92.95  | 96.18    | 106.36     | 99.79     | 96.36     | 97.27   | 97.48  | 93.80  | 94.86  | 94.44  |
| 2037    | 97.10  | 96.61  | 95.00  | 98.30    | 108.71     | 102.00    | 98.49     | 99.42   | 99.63  | 95.87  | 96.96  | 96.53  |
| 2038    | 98.97  | 98.47  | 96.84  | 100.20   | 110.81     | 103.97    | 100.39    | 101.34  | 101.55 | 97.72  | 98.83  | 98.39  |
| 2039    | 100.88 | 100.37 | 98.71  | 102.13   | 112.95     | 105.97    | 102.33    | 103.29  | 103.51 | 99.60  | 100.74 | 100.29 |
| 2040    | 102.54 | 102.02 | 100.33 | 103.82   | 114.81     | 107.72    | 104.02    | 105.00  | 105.22 | 101.25 | 102.40 | 101.94 |
| 2041    | 104.81 | 104.28 | 102.55 | 106.11   | 117.35     | 110.10    | 106.32    | 107.32  | 107.55 | 103.49 | 104.66 | 104.20 |

|      |       |       |       |         | T         | ABLE 6b    |            |         |       |            |       |       |
|------|-------|-------|-------|---------|-----------|------------|------------|---------|-------|------------|-------|-------|
|      |       |       |       | R       | Renewable | e Avoideo  | d Costs    |         |       |            |       |       |
|      |       |       | F     | Renewab | e Fixed F | Price Opti | ion for So | olar QF |       |            |       |       |
|      |       |       |       | 0       | ff-Peak F | orecast (  | \$/MWH)    |         |       |            |       |       |
|      |       |       |       |         |           |            |            |         | -     | <b>0</b> ( |       |       |
| Year | Jan   | Feb   | Mar   | Apr     | May       | Jun        | Jul        | Aug     | Sep   | Oct        | Nov   | Dec   |
| 2017 | 25.07 | 26.91 | 24.49 | 15.91   | 12.17     | 10.50      | 17.91      | 24.41   | 24.31 | 22.38      | 24.83 | 26.92 |
| 2018 | 25.65 | 27.53 | 25.06 | 16.30   | 12.48     | 10.78      | 18.34      | 24.98   | 24.88 | 22.91      | 25.41 | 27.54 |
| 2019 | 28.18 | 30.25 | 27.52 | 17.84   | 13.62     | 11.73      | 20.10      | 27.43   | 27.32 | 25.14      | 27.91 | 30.27 |
| 2020 | 55.06 | 55.29 | 56.65 | 55.55   | 52.58     | 52.78      | 53.04      | 54.06   | 54.85 | 55.93      | 55.76 | 56.14 |
| 2021 | 56.97 | 56.29 | 57.78 | 56.57   | 54.03     | 54.07      | 54.64      | 54.94   | 55.96 | 57.75      | 55.61 | 57.11 |
| 2022 | 57.78 | 57.49 | 59.46 | 57.46   | 54.79     | 55.12      | 56.44      | 55.58   | 57.03 | 58.82      | 56.52 | 58.16 |
| 2023 | 58.53 | 58.57 | 60.63 | 59.03   | 55.13     | 56.16      | 57.38      | 56.90   | 58.03 | 60.02      | 57.37 | 59.34 |
| 2024 | 59.00 | 59.06 | 61.83 | 58.87   | 55.44     | 57.84      | 56.81      | 57.13   | 58.45 | 60.26      | 59.15 | 59.71 |
| 2025 | 60.20 | 60.19 | 63.12 | 59.74   | 55.43     | 58.15      | 58.02      | 58.89   | 58.99 | 61.58      | 61.14 | 60.59 |
| 2026 | 60.49 | 61.29 | 63.41 | 60.15   | 56.02     | 58.98      | 58.83      | 59.45   | 58.83 | 62.40      | 61.28 | 61.32 |
| 2027 | 62.57 | 62.55 | 64.16 | 61.72   | 55.88     | 60.06      | 60.36      | 59.81   | 60.16 | 64.24      | 62.01 | 62.45 |
| 2028 | 63.42 | 63.96 | 66.16 | 63.26   | 55.35     | 61.40      | 61.55      | 60.38   | 61.59 | 64.74      | 62.71 | 64.41 |
| 2029 | 63.86 | 64.58 | 67.38 | 64.49   | 51.11     | 61.67      | 62.62      | 61.41   | 62.76 | 65.44      | 64.59 | 65.53 |
| 2030 | 64.85 | 65.65 | 68.76 | 64.61   | 50.89     | 62.20      | 63.19      | 63.34   | 63.17 | 66.67      | 66.12 | 66.88 |
| 2031 | 66.26 | 67.30 | 69.67 | 64.93   | 51.92     | 62.00      | 64.53      | 64.67   | 63.31 | 67.77      | 67.62 | 66.96 |
| 2032 | 67.35 | 68.41 | 70.82 | 66.00   | 52.77     | 63.03      | 65.60      | 65.74   | 64.36 | 68.89      | 68.74 | 68.06 |
| 2033 | 68.84 | 69.92 | 72.38 | 67.46   | 53.94     | 64.42      | 67.05      | 67.19   | 65.78 | 70.41      | 70.26 | 69.57 |
| 2034 | 70.17 | 71.27 | 73.78 | 68.76   | 54.98     | 65.66      | 68.34      | 68.49   | 67.05 | 71.77      | 71.61 | 70.91 |
| 2035 | 71.52 | 72.65 | 75.20 | 70.09   | 56.04     | 66.93      | 69.66      | 69.81   | 68.34 | 73.16      | 73.00 | 72.28 |
| 2036 | 72.70 | 73.85 | 76.45 | 71.25   | 56.97     | 68.03      | 70.81      | 70.97   | 69.47 | 74.37      | 74.20 | 73.47 |
| 2037 | 74.31 | 75.48 | 78.13 | 72.82   | 58.22     | 69.54      | 72.37      | 72.53   | 71.01 | 76.01      | 75.84 | 75.10 |
| 2038 | 75.74 | 76.94 | 79.64 | 74.23   | 59.35     | 70.88      | 73.77      | 73.93   | 72.38 | 77.48      | 77.30 | 76.55 |
| 2039 | 77.20 | 78.42 | 81.18 | 75.66   | 60.49     | 72.25      | 75.20      | 75.36   | 73.77 | 78.97      | 78.80 | 78.02 |
| 2040 | 78.48 | 79.72 | 82.52 | 76.91   | 61.49     | 73.44      | 76.44      | 76.61   | 74.99 | 80.27      | 80.10 | 79.31 |
| 2041 | 80.21 | 81.48 | 84.34 | 78.61   | 62.85     | 75.06      | 78.13      | 78.30   | 76.65 | 82.05      | 81.87 | 81.06 |

## WIND INTEGRATION

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

#### 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 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.

Attachment I



Via Electronic Mail

## RE: Transmittal of Final Draft Standard PPA Falls Creek Hydro project, a proposed 4.1 megawatt Hydro QF

Mr. Marcus,

Thank you for your interest in entering into a Standard Power Purchase Agreement (Standard PPA) with Portland General Electric (PGE). We received your written request for a final draft Standard PPA on 7/13/17. PGE has determined that you have provided sufficient information to allow PGE to prepare a final draft Standard PPA.

Enclosed please find a final draft Standard PPA for your Falls Creek Hydro project, 4.1 megawatt hydro generating facility that was self-certified as a qualifying facility (QF) pursuant to 18 CFR 292.207. PGE understands that Falls Creek H.P., a limited partnership company formed under the laws of the State of Oregon is the owner of the Falls Creek Hydro project and will be the Seller under the Standard PPA. If any of this information or any of the factual details contained in the enclosed final draft Standard PPA are incorrect or change, please inform PGE immediately.

The enclosed final draft Standard PPA is a discussion draft; it is not a binding offer and PGE reserves the right to revise any of its variable terms, including exhibits. No binding Standard PPA will exist between PGE and Falls Creek H.P. unless and until PGE has provided Falls Creek H.P. with an executable Standard PPA and both Falls Creek H.P. and PGE have executed the document.

At this stage in the process you have several options: you can decide not to pursue a contract any further; you can propose in writing substantive changes to your project proposal or to the variable terms of the final draft Standard PPA; or you can send PGE a written request to prepare an executable Standard PPA without proposing any substantive changes to your project or the final draft contract.

If you propose substantive changes to your project or the variable terms of the final draft Standard PPA, PGE will treat your proposal as a new request for a draft Standard PPA. Within 15 business days of receiving your written proposal, PGE with send you either a new draft Standard PPA or PGE will request additional or clarifying information if PGE reasonably determines that it requires more information before it can prepare a new draft Standard PPA in response to your proposal to change contract terms or project details.

If you request an executable Standard PPA without proposing substantive changes to your project proposal or the variable terms of the final draft Standard PPA, then within 15

Falls Creek Hydro Page 2 of 2

business days of receiving your written request, PGE will send you either an executable Standard PPA or request additional or clarifying information if PGE reasonably determines that additional information is necessary to prepare an executable Standard PPA.

Once you receive an executable Standard PPA, you can execute it without alteration and establish a legally enforceable obligation. Pursuant to PGE's Schedule 201 at Sheet No. 201-3 and OPUC Order No. 16-174 at 3, the power purchase prices you are entitled to receive under your Standard PPA will be based on PGE's Standard Avoided Costs or Renewable Avoided Costs in effect at the time that you execute an executable Standard PPA provided to you by PGE.

This letter summarizes certain aspects of the Standard PPA process; it does not address every detail of the process.

Sincerely,

 Ryin Khandoker | Structuring and Origination

 Portland General Electric | 121 SW Salmon Street, 3WTC0306, Portland, Oregon 97204

 2: 503-464-8448 | 🖂: ryin.khandoker@pgn.com

enclosure: Final Draft Standard PPA for Falls Creek H.P.'s Falls Creek Project

Attachment J

## STANDARD OFF-SYSTEM NON-VARIABLE POWER PURCHASE AGREEMENT

THIS AGREEMENT is between **Falls Creek H.P., Limited Partnership** ("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>hydro</u> facility for the generation of electric power located in (44.396 N -122.348) Linn County, Oregon with a Nameplate Capacity Rating of <u>4,100</u> kilowatt ("kW"), as further described in Exhibit B ("Facility"); and

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

Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.19, below, from the Facility in accordance with the terms and conditions of this Agreement.

## AGREEMENT

NOW, THEREFORE, the Parties mutually agree as follows:

## SECTION 1: DEFINITIONS

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

1.1. "As-built Supplement" means the supplement to Exhibit B provided by Seller in accordance with Section 4.4 following completion of construction of the Facility, describing the Facility as actually built.

1.2. "Billing Period" means from the start of the first day of each calendar month to the end of the last day of each calendar month.

1.3. "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.

1.4. "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:

71.4.1. (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 amounts required by this Agreement and in accordance with all other terms and conditions of this Agreement (certifications required under this Section 1.4 can be provided by one or more LPEs);

1.4.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.28;

1.4.3. (facilities with nameplate under 500 kW exempt from following requirement) After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the operation of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;

1.4.4. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that all required interconnection facilities have been constructed and all required interconnection tests have been completed;

1.4.5. (facilities with nameplate under 500 kW exempt from following requirement) PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;

1.4.6. PGE has received a copy of the executed Generation Interconnection and Transmission Agreements.

1.5. "Contract Price" means the applicable price, including on-peak and offpeak prices, as specified in the Schedule.

1.6. "Contract Year" means each twelve (12) month period commencing upon the Commercial Operation Date or its anniversary during the Term, except the final contract year will be the period from the last anniversary of the Commercial Operation Date during the Term until the end of the Term.

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

1.8. "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.

## 1.9. "Facility" has the meaning set forth in the Recitals.

1.10. "Forward Replacement Price" means the price at which PGE, acting in a commercially reasonable manner, purchases for delivery at the Point of Delivery a replacement for any Net Output that Seller is required to deliver under this Agreement plus (i) costs reasonably incurred by PGE in purchasing such replacement Net Output, and (ii) additional transmission charges, if any, reasonably incurred by PGE in causing replacement energy to be delivered to the Point of Delivery. If PGE elects not to make such a purchase, costs of purchasing replacement Net Output shall be at the Mid-C Index Price for such energy not delivered, plus any additional cost or expense incurred as a result of Seller's failure to deliver, as determined by PGE in a commercially reasonable manner (but not including any penalties, ratcheted demand or similar charges).

1.11. "Generation Interconnection Agreement" means an agreement governing the interconnection of the Facility with <u>Pacificorp</u> electric system

1.12. "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.

1.13. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.

1.14. "Lost Energy Value" means for a Contract Year: zero plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery, unless the Contract Year's Net Output is less than the Minimum Net Output and the Contract Year's time-weighted average of the Mid-C Index Price for On-Peak and Off-Peak Hours is greater than the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours for that Contract Year, in which case Lost Energy Value equals: (Minimum Net Output - Net Output for the Contract Year) X (the lower of: the time-weighted average of the Contract Year) X (the lower of: the time-weighted average of the Mid-C Index Price for On-Peak and Off-Peak Hours; or the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours – the time-weighted average of the Contract Price for On-Peak and Off-Peak Hours) minus Transmission Curtailment Replacement Energy Cost, if any, for like period plus any reasonable costs incurred by PGE to purchase replacement power and/or transmission to deliver the replacement power to the Point of Delivery

1.15. "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.

1.16. "Minimum Net Output" shall have the meaning specified in Section 4.2 of this Agreement.

1.17. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.

1.18. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.

1.19. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses.

1.20. "Off-Peak Hours" has the meaning provided in the Schedule.

1.21. "On-Peak Hours" has the meaning provided in the Schedule.

1.22. "Point of Delivery" means the PGE System.

1.23. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.

1.24. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.

1.25. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit C.

1.26. "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 E, the terms of which are hereby incorporated by reference.

1.27. "Senior Lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.

1.28. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit D.

1.29. "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.

1.30. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.

1.31. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.

1.32. "Transmission Agreement" means an agreement executed by the Seller and the Transmission Provider(s) for Transmission Services.

1.33. "Transmission Curtailment" means a limitation on Seller's ability to deliver any portion of the scheduled energy to PGE due to the unavailability of transmission to the Point of Delivery (for any reason other than Force Majeure).

1.34. "Transmission Curtailment Replacement Energy Cost" means the greater of zero or the difference between Mid-C Index Price – Contract Price X curtailed energy for periods of Transmission Curtailment.

1.35. "Transmission Provider(s)" means the signatory (other than the Seller) to the Transmission Agreement.

1.36. "Transmission Services" means any and all services (including but not limited to ancillary services and control area services) required for the firm transmission and delivery of Energy from the Facility to the Point of 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 January 1, 2020 Seller shall begin initial deliveries of Net Output; and

2.2.2. By <u>January 1, 2020</u> Seller shall have completed all requirements under Section 1.4 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. Buyer will not unreasonably withhold agreement to a Commercial Operation Date that is more than three (3) years from the Effective date if the Seller has demonstrated that a later Commercial Operation Date is reasonable and necessary.

2.3. This Agreement shall terminate on <u>December 31, 2034</u>, or the date the Agreement is terminated in accordance with Section 8 or 11.2, whichever is earlier ("Termination Date").

# SECTION 3: REPRESENTATIONS AND WARRANTIES

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

3.1.1. Seller warrants it is a <u>Limited Partnership</u> duly organized under the laws of <u>Oregon</u>.

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 <u>4,910</u> kW.

3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is <u>15,500,000</u> kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.

3.1.10. Seller will schedule and deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of  $\frac{21,000,000}{21,000,000}$  kWh of Net Output during each Contract Year ("Maximum Net Output"). The cost of delivering energy from the Facility to PGE is the sole responsibility of the Seller.

3.1.11. By the Commercial Operation Date, Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.

3.1.12. PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.

3.1.13. Seller warrants that (i) the Facility satisfies the eligibility requirements specified in the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard PPA in PGE's Schedule and (ii) Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard PPA in PGE's Schedule. Seller will provide, upon request by PGE not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. PGE agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except PGE will provide all such confidential information to the Commission upon the Commission's request.

## SECTION 4: DELIVERY OF POWER AND PRICE

4.1. Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output from the Facility. Seller's Net Output shall be scheduled and delivered to PGE at the Point of Delivery in accordance with Section 4.5. PGE shall pay Seller the Contract Price for all scheduled and delivered Net Output.

4.2. Seller shall schedule and deliver to PGE from the Facility for each Contract Year Net Output equal to or greater than the Minimum Net Output (either (a) if Seller does not select the Alternative Minimum Amount as defined in Exhibit A of this Agreement, seventy-five percent (75%) of its average annual Net Output or (b) if

selected by Seller, the Alternative Minimum Amount designated for each Contract Year), provided that such Minimum Net Output shall be reduced on a pro-rata basis for any periods during a Contract Year(s) that the Facility was prevented from generating electricity for reasons of Force Majeure.

4.3. Seller agrees that if Seller does not deliver the Minimum Net Output each Contract Year for reasons other than Transmission Curtailment, PGE will suffer losses equal to the Lost Energy Value. As damages for Seller's failure to deliver the Minimum Net Output (subject to adjustment for reasons of Force Majeure as provided in Section 4.2) in any Contract Year, notwithstanding any other provision of this Agreement the purchase price payable by PGE for future deliveries shall be reduced until Lost Energy Value is recovered. PGE and Seller shall work together in good faith to establish the period, in monthly amounts (not more than 24 months), of such reduction so as to avoid Seller's default on its commercial or financing agreements necessary for its continued operation of the Facility for QF Facilities sized at 100 kW or smaller, the provisions of this section shall not apply.

4.4. Upon completion of construction of the Facility, Seller shall provide PGE an As-built Supplement to specify the actual Facility as built. Seller shall not increase the Nameplate Capacity Rating above that specified in Exhibit B or increase the ability of the Facility to deliver Net Output in quantities in excess of the Net Dependable Capacity, or the Maximum Net Output as described in Section 3.1.10 above, through any means including, but not limited to, replacement, modification, or addition of existing equipment, except with 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 of the required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000 kW.

4.5. 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.

4.6. Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Environmental Attributes produced with respect to the Facility, and PGE shall not report under such program that such Environmental Attributes belong to it.

# SECTION 5: 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 or transmission to PGE's electric system is curtailed, disconnected, suspended or interrupted, in whole or in part. Seller is solely responsible for the operation and maintenance of the Facility. PGE shall not, by reason of its decision to inspect or not to inspect the Facility, or by any action or inaction taken with respect to any such inspection, assume or be held responsible for any liability or occurrence arising from the operation and maintenance by Seller of the Facility.

5.2. Seller agrees to provide sixty (60) days advance written notice of any scheduled maintenance that would require shut down of the Facility for any period of time.

5.3. If the Facility ceases operation for unscheduled maintenance, Seller immediately shall notify PGE of the necessity of such unscheduled maintenance that could affect the generation, scheduling or delivery of energy to PGE, the time when such maintenance has occurred or will occur, and the anticipated duration of such maintenance. Seller shall take all reasonable measures and exercise its best efforts to avoid unscheduled maintenance, to limit the duration of such unscheduled maintenance, and to perform unscheduled maintenance during Off-Peak hours.

# SECTION 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 ten (10) days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step in Rights, a Cash Escrow or Letter of Credit. The amount of such default security that shall be acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price – Off Peak Price) X (Minimum Net Output / 8760). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

# SECTION 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.

7.2. Any amounts owing after the due date thereof shall bear interest at the Prime Rate plus two percent (2%) from the date due until paid; provided, however, that the interest rate shall at no time exceed the maximum rate allowed by applicable law.

# SECTION 8: DEFAULT, REMEDIES AND TERMINATION

8.1. In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:

8.1.1. Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.

8.1.2. Seller's failure to provide default security, if required by Section 6, prior to delivery of any Net Output to PGE or within ten (10) days of notice.

8.1.3. Seller's failure to deliver the Minimum Net Output for two consecutive Contract Years.

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, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party, and, except for damages related to a default pursuant to Section 8.1.3, by a QF sized at 100 kW or smaller, may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. Such termination shall be effective upon the date of delivery of notice, as provided in Section 20.1. The rights provided in this Section 8 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.

8.4. If this Agreement is terminated as provided in this Section 8, PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement,

are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.

8.5. If this Agreement is terminated as a result of Seller's default, Seller shall pay PGE the positive difference, if any, obtained by subtracting the Contract Price from the sum of the Forward Replacement Price for the Minimum Net Output that Seller was otherwise obligated to provide for a period of twenty-four (24) months from the date of termination plus any cost incurred for transmission purchased by PGE to deliver the replacement power to the Point of Delivery and the estimated administrative cost to the utility to acquire replacement power. Accounts owed by Seller pursuant to this paragraph shall be due within five (5) business days after any invoice from PGE for the same.

8.6. In the event PGE terminates this Agreement pursuant to this Section 8, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.

8.7. Sections 8.1, 8.4, 8.5, 8.6, 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 Sections 4.5 of this Agreement.

9.2. If as the result of a Transmission Curtailment, Seller does not deliver any portion of energy (including real-time adjustments), scheduled pursuant to Section 4.5 of this Agreement, Seller shall pay PGE the Transmission Curtailment Replacement Energy Cost for the number of MWh of energy reasonably determined by PGE as the difference between (i) the scheduled energy that would have been delivered to PGE under this Agreement during the period of Transmission Curtailment and (ii) the actual energy, if any, that was delivered to PGE for the period.

# SECTION 10: INDEMNIFICATION AND LIABILITY

10.1. Seller agrees to defend, indemnify and hold harmless PGE, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with Seller's delivery of electric power to PGE or with the facilities at or prior to the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent

such loss, claim, action or suit may be caused by the negligence of PGE, its directors, officers, employees, agents or representatives.

10.2. PGE agrees to defend, indemnify and hold harmless Seller, its directors, officers, agents, and representatives against and from any and all loss, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with PGE's receipt of electric power from Seller or with the facilities at or after the Point of Delivery, or otherwise arising out of this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to PGE, Seller or others, excepting to the extent such loss, claim, action or suit may be caused by the negligence of Seller, its directors, officers, employees, agents or representatives.

10.3. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of PGE as an independent public utility corporation or Seller as an independent individual or entity.

10.4. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING FROM CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

# SECTION 11: INSURANCE

11.1. Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any insurance or self-insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

11.2. Prior to the connection of the Facility to PGE's electric system, provided such facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, in an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance acceptable to PGE against

property damage or destruction in an amount not less than the cost of replacement of the Facility. Seller promptly shall notify PGE of any loss or damage to the Facility. Unless the Parties agree otherwise, Seller shall repair or replace the damaged or destroyed Facility, or if the facility is destroyed or substantially destroyed, it may terminate this Agreement. Such termination shall be effective upon receipt by PGE of written notice from Seller. Seller shall waive its insurers' rights of subrogation against PGE regarding Facility property losses.

11.3. Prior to the connection of the Facility to PGE's electric system and at all other times such insurance policies are renewed or changed, Seller shall provide PGE with a copy of each insurance policy required under this Section, certified as a true copy by an authorized representative of the issuing insurance company or, at the discretion of PGE, in lieu thereof, a certificate in a form satisfactory to PGE certifying the issuance of such insurance. If Seller fails to provide PGE with copies of such currently effective insurance policies or certificates of insurance, PGE at its sole discretion and without limitation of other remedies, may upon ten (10) days advance written notice by certified or registered mail to Seller either withhold payments due Seller until PGE has received such documents, or purchase the satisfactory insurance and offset the cost of obtaining such insurance from subsequent power purchase payments under this Agreement.

# SECTION 12: FORCE MAJEURE

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

12.2. If either Party is rendered wholly or in part unable to perform its obligation under this Agreement because of an event of Force Majeure, that Party shall be excused from whatever performance is affected by the event of Force Majeure to the extent and for the duration of the Force Majeure, after which such Party shall recommence performance of such obligation, provided that:

12.2.1. the non-performing Party, shall, promptly, but in any case within one (1) week after the occurrence of the Force Majeure, give the other Party written notice describing the particulars of the occurrence; and

12.2.2. the suspension of performance shall be of no greater scope and of no longer duration than is required by the Force Majeure; and

12.2.3. the non-performing Party uses its best efforts to remedy its inability to perform its obligations under this Agreement.

12.3. No obligations of either Party which arose before the Force Majeure causing the suspension of performance shall be excused as a result of the Force Majeure.

12.4. Neither Party shall be required to settle any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to the Party's best interests.

# SECTION 13: SEVERAL OBLIGATIONS

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

# SECTION 14: CHOICE OF LAW

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

# SECTION 15: PARTIAL INVALIDITY AND PURPA REPEAL

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

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

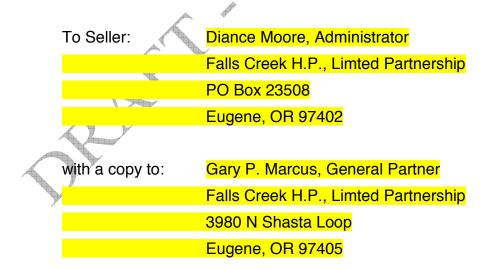
# SECTION 19: ENTIRE AGREEMENT

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 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.

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#### EXHIBIT A MINIMUM NET OUTPUT

In this Exhibit, Seller may designate an alternative Minimum Net Output to seventy-five (75%) percent of annual average Net Output specified in Section 3.1.9 of the Agreement ("Alternative Minimum Amount"). Such Alternative Minimum Amount, if provided, shall exceed zero, and shall be established in accordance with Prudent Electrical Practices and documentation supporting such a determination shall be provided to PGE upon execution of the Agreement. Such documentation shall be commercially reasonable, and may include, but is not limited to, documents used in financing the project, and data on output of similar projects operated by seller, PGE or others.

otforfi

#### EXHIBIT B DESCRIPTION OF SELLER'S FACILITY

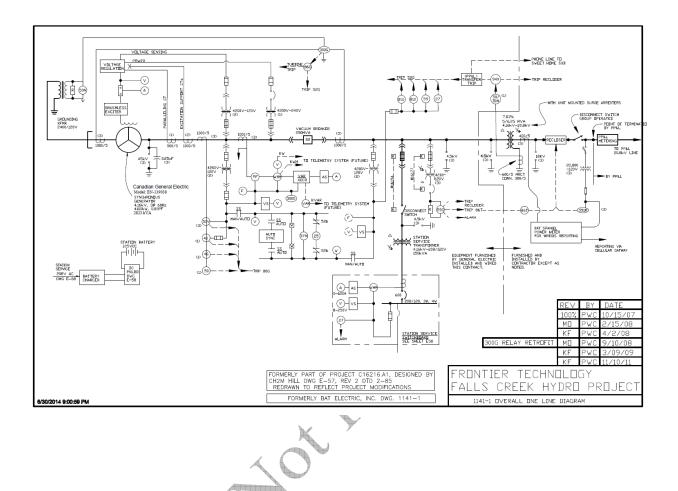
| a. Seller Legal Name: Falls Creek H.P., Limited Partnership<br>b. Type of facility (solar, or wind for example): Hydro<br>c. County and GPS Coordinate to 3 decimals Latitude: 44.396, Logitude -122.348<br>d. State : Oregon<br>e. Generator Name Plate Rating in kW: 4100 (As built 4960)<br>f. Section 1.11 Electric system to interconnect to and interconnection and its point of delivery:<br>Interconnection; Falls Creek Hydro Project: Point of Delivery, BPAT.<br>g. Section 2.2.1 date to be begin delivery January 1, 2020 For contract purposes<br>h. Section 2.2.3 date of Commercial Operation Date (December 31, 1984) January 1, 2020 for contract purp<br>i. Section 2.3 Termination Date: December 31, 2034<br>j. Corporation type: Limited Partnership<br>k. State of organization: Oregon<br>l. Net Dependable Capacity in kW: 4910<br>m. Estimated average annual Net Output: 15,500,000 kWh<br>n. Maximum of kWh: 21,000,000<br>o. Notice address line 1: Diane Moore, Administrator | Falls Creek H.P., Limited Partnership<br>hydro<br>(44.396 N -122.348 ) Lane<br>Oregon<br>4100<br>BPAT<br>1-Jan-20<br>31-Dec-34<br>Limited Partnership<br>Oregon |
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| d. State : Oregon<br>e. Generator Name Plate Rating in kW: 4100 (As built 4960)<br>f. Section 1.11 Electric system to interconnect to and interconnection and its point of delivery:<br>Interconnection; Falls Creek Hydro Project: Point of Delivery, BPAT.<br>g. Section 2.2.1 date to be begin delivery January 1, 2020 For contract purposes<br>h. Section 2.2.3 date of Commercial Operation Date (December 31, 1984) January 1, 2020 for contract purp<br>i. Section 2.3 Termination Date: December 31, 2034<br>j. Corporation type: Limited Partnership<br>k. State of organization: Oregon<br>l. Net Dependable Capacity in kW: 4910<br>m. Estimated average annual Net Output: 15,500,000 kWh<br>n. Maximum of kWh: 21,000,000   | Oregon<br>4100<br>BPA<br>1-Jan-20<br>005<br>1-Jan-20<br>31-Dec-30<br>Limited Partnership  |
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| p. Notice address line 2: Falls Creek H.P., Limited Partnership   | Falls Creek H.P., Limted Partnershi   |
| g. Notice address line 3 PO Box 23508   | PO Box 2350   |
| r. Notice address line 4: Eugene, OR 97402  | Eugene, OR 9740   |
| s. Copy to address line 1 Gary P. Marcus, General Partner   | Gary P. Marcus, General Partne  |
| t. Copy to address line 2 Falls Creek H.P., Limited Partnership   | Falls Creek H.P., Limted Partnershi   |
| u. Copy to address line 3 3980 N. Shasta Loop   | 3980 N Shasta Loo   |
| v. Copy to address line 4 Eugene, OR 97405  | Eugene, OR 9740   |
| w. On a separate sheet include a detailed facility description, including one-line diagram  | Eugene, en s, io  |
|   |   |

| 1. Generation  |   |
|--|---|
| a. Output simulation results detail, including but not limited to:   |   |
| <ul> <li>a. Output simulation results detail, including but not innited to:</li> <li>i. Annual MWh (AC) for the first calendar year of commercial operation and any annual degradation factor: 15,500 MWh Average</li> </ul>   |   |
| ii. Average 24-hr profile of generation MWh (AC) for each month during the first calendar year: <b>Move cursor to Column D</b>   |   |
| iii. Maximum annual output (monthly MWh detail) 19,554 MWh in 2012   |   |
|  |   |
| b. Loss Diagram : Project has increased capacity and effiency every year of its 33-year life.  |   |
| c. Design Capacity factor: 4100  |   |
| d. Expected Capacity factor: <b>4910 As built</b>  |   |
| e. Minimum turndown capacity <b>200 kW</b>   |   |
| f. Start time to full load <b>3 minutes when water is present (from cold start, need 2 minute to warm up)</b>  |   |
| g. Ramp rate design (kW/min) 4,900 kW / min  |   |
| h. Ramp rate operational   | A   |
| i. Ramp rate up and down (kW/min) <b>Up 4,900 kW/min, down 4900 kW / 3 seconds</b>   |   |
| ii. Rough Zone constraints <b>NA</b>   |   |
| i. Operation Model - Run of River, Reservoir Operation, etc.: Run of River   |   |
| 2. Description of Generation facility including:   | • • •   |
| a. Design life of the facility: 75 years because of penstock cathodic protection. Possibly longer.   |   |
| b. Turbine Runner  |   |
| i. Turbine runner Manufacturer: model : Gilkes & Gordon, Ltd. 56240 Turbine Number - each turbine is unique  |   |
| ii. Turbine runner technology type: Horizontal Pelton, 34-inch diameter, Twin-Jet, single bearing, 22 split buckets  |   |
| iii. Performance curve : 200 kW to 4910 kW (Peltons are 90% to 96% efficient over a wide range)  | $\land$   |
| iv. Turbine/Runner Name Plate Rating in kW 4479 (as built 4910)  |   |
| c. Generator   |   |
| <ul> <li>i. Manufacturer: model and type Canadian General Electric (CGE), Model EN-139038, ATI Synchronous</li> </ul>  |   |
| ii. Design curves and technical specifications   |   |
| d. Upstream / Downstream environmental mitigations   |   |
| i. Minimum/maximum flow requirements: 1 CFS minium stream flow. No Maximum   | 1   |
| ii. Total dissovled gas (TDG) license requirements: None   |   |
|  |   |
| iii. Oxygen measure or other specific downstream environmental limits: None  |   |
| iv. Fish passage or wildlife requirements: None - just 1 cfs minimum stream flow   | And the second |
| v. Recreational or irrigation encomberments tha would impact facility generation: None   |   |
| e. Scheduled Maintenance (Weeks/Yr.) 16 Weeks/ Yr  |   |
| f. Typical Maintenance Period (Month(s) of year - planned down time) July 10 to November 1 (not enough water to operate)   |   |
| g. Facility AC rating: 60 Hz, 4160 V, 669 A  |   |
| 3. Description of Facility permitting restrictions and requirements (local, state, or federal) prior to and during operations: 1.CFS min.  |   |
| 4. Description of transformers / interconnection equipment Step up from 4,160 V to 20,800 V  |   |
| a. # of transformers one   |   |
| b. Model: GEK-45295  |   |
| c. High Voltage Rating: 20,800 V   |   |
| d. Low Voltage Rating 4,160 V  |   |
| e. MVA rating 5.000/6.250  |   |
| f. High voltage connection 20,800 V, Grounded WYE  |   |
| g. Low voltage connection 4,160 V, Delta Aurora Metering, PAC Metering, 24 hr. Dispatch for alarms   |   |
| 5. Description of metering, communications, and monitoring equipment; Lookout SCADA HMI, through cellular, landline, web based   |   |
| 6. Description of station service requirements: 1 to 120 kV in shut downs, for computers, lighting. On-site 20 kW propane generator  |   |
| 7. Description and timeline of interconnection and transmission plan Already interconnected to PAC. (^150 KVA Tansformer 208/120 3-phase)  |   |
| a. Interconnection Balancing Authorities: PacifiCorp   |   |
| b. Timeline for completion of system integration and interconnection study: POD, BPAT. July 2017   |   |
| c. Integration planning and WECC reserve obligations and arrangements: Falls Creek integrated for 33 years   |   |
|  |   |
| List of All Regired Facility Documents for Exhibit B   |   |
| 1. Interconnection Agreement : With PaciCorp - attached in this email  |   |
| 2. Transmission Agreement: In progress   |   |
| 3. Permits (including licensing and environmental studies and impacts) OWRD, USFW, OFW, ODEQ   |   |
| 4. Access Permits: Forest Service Special Use Permit   |   |
| 5. FERC Form 556 and docket number as proof of submittal and acceptance by FERC: March 20, 2006, FERC Stamped, Self-Certified  |   |
| Description of Start Up Testing for Exhibit C including:   |   |
| Required factory testing including such checks and tests necessary to determine that the equipment systems and subsystems have   |   |
| been properly manufactured and installed, function properly, and are in a condition to permit safe and efficient start-up of the Facility.   |   |
| Plant has been running for 33 years. It started up safely.   |   |
| same new sector ranning for services in Started up Survey.   |   |
| <ol> <li>Required start-up tests are those checks and tests necessary to determine that all features and equipment, systems, and subsystems<br/>have been properly designed, manufatured, installed and adjusted, function properly, and are capable of operating the Facility in<br/>continuous dividual time of the October and the Coefficient and adjusted and the comparison of the coefficient<br/>protocol and the coefficient of the October and the Coefficient and the Coefficient and the coefficient of the<br/>coefficient of the October and the Coefficient and</li></ol> |   |

have been properly designed, manufatured, installed and adjusted, function properly, and are capable of operating the Facility in continuous delivery into PGE's electrical system: Falls Creek has over 20 years of annual tests. Please let us know how many years of tests you would like. Some equipment is on three-year test cycles. Equipment is down 1% during operating season. PacifiCorp's distributions lines are down 2% of operating season. Falls Creek Availability is 97%

#### Monthly Output/Daily Profile of Generation

| Mont | thly Outpo | ut/Daily F | Profile of Gene | ration           |             |
|------|------------|------------|-----------------|------------------|-------------|
|      | Ca         | lculations | for PGE and PA  | C Transmission   | AV 6.       |
|      | 32 Ye      | ear Averag | e Generation: 1 | 986 through 2017 |             |
|      |            |            |                 |                  |             |
|      | Number     | Number     | Average         | Ave Monthly      | Max Monthly |
|      | Days       | Hours      | MW per Hour     | MWh              | MW Capacity |
|      |            |            |                 |                  |             |
| Jan  | 31         | 24         | 2.59            | 1,930            | 4.91        |
| Feb  | 28.25      | 24         | 2.46            | 1,669            | 4.91        |
| Mar  | 31         | 24         | 2.55            | 1,898            | 4.91        |
| Apr  | 30         | 24         | 3.24            | 2,332            | 4.91        |
| May  | 31         | 24         | 3.17            | 2,358            | 4.91        |
| Jun  | 30         | 24         | 1.98            | 1,422            | 4.91        |
| Jul  | 31         | 24         | 0.42            | 309              | 1.00        |
| Aug  | 31         | 24         | 0.02            | 12               | 1.00        |
| Sep  | 30         | 24         | 0.05            | 37               | 1.00        |
| Oct  | 31         | 24         | 0.35            | 257              | 3.00        |
| Nov  | 30         | 24         | 1.78            | 1,278            | 4.91        |
| 1100 | 31         | 24         | 2.61            | 1,945            | 4.91        |



RAF

#### EXHIBIT C REQUIRED FACILITY DOCUMENTS

Sellers Generation Interconnection Agreement PPL Agreement signed 1983 All required transmission Agreements Applied for with PacifiCorp All required environmental permits OWRD, OFW, NFW, ODEQ, DEQ All required agreement to record Renewable Energy Certificates Aurora US Forest Service Special Use Permit (FS Required site control documents SUP) Form 556, filed and stamped March 20, FERC Self-Certification and acceptance 2006 Any Conditional Use Permits NA Any Access Permit FS SUP **Construction Permits** NA Water quality permits OWRD, DEC ortor

# EXHIBIT D START-UP TESTING

# Schedule 201 Initial Information Request - Small Hydro (Version 2)

Exhibit C Required Testing

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

Note: Because the plant has been operating for 33 years, and the energy and capacity are being wheeled to PGE, most of this information is not applicable. We have annual maintenance reports. We have extensive preventative maintenace. The proof is we have always improved efficiency of plant.

1. Safety plan during startup and commissioning (including the expected number of individuals covered)

2. Review of all QA/QC testing

3. Confirm testing and energizing inverters in conformance with manufacturer's recommended procedures; note operating voltages; and confirm inverter is performing as expected

4. Energizing transformers

5. Under full sun conditions, and after at least 15 minutes of operation, taking and recording PV Plant operating data—such as but not limited to MWDC, MWAC, VDC, NAC, VAC, IDC, IAC, Solar Radiation, etc.

6. Testing the system control and monitoring system to verify that it is performing correctly

7. Testing the communication system for offsite monitoring and all requirements of the Western Energy Imbalance Market

8. Testing the Plant metering and protective relaying to verify they meet utility requirements

9. Documentation of successful startup and commissioning procedure

10. Written notification submitted by Contractor to Owner that the completion of Acceptance Testing and Commissioning has occurred

11. Testing to meet the requirements of Section 1.5.3.

# EXHIBIT E

Ant Adtornation

#### 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.

|      |        |        |        |          | Т         | ABLE 1a  |          |         |        |        |        |        |
|------|--------|--------|--------|----------|-----------|----------|----------|---------|--------|--------|--------|--------|
|      |        |        |        |          | Avo       | ided Cos | ts       |         |        |        |        |        |
|      |        |        | St     | andard F | ixed Pric | e Option | for Base | Load QF | •      |        |        |        |
|      |        |        |        | 0        | n-Peak F  | orecast  | \$/MWH)  |         |        |        |        |        |
|      |        |        |        |          |           |          |          |         |        |        |        |        |
| Year | Jan    | Feb    | Mar    | Apr      | May       | Jun      | Jul      | Aug     | Sep    | Oct    | Nov    | Dec    |
| 2017 | 42.81  | 30.21  | 19.11  | 12.56    | 16.71     | 18.71    | 29.71    | 33.71   | 30.21  | 27.21  | 29.21  | 35.71  |
| 2018 | 31.71  | 31.11  | 28.10  | 19.97    | 19.21     | 19.21    | 28.16    | 31.40   | 28.82  | 25.64  | 28.54  | 31.96  |
| 2019 | 32.37  | 31.76  | 28.69  | 20.40    | 19.63     | 19.63    | 28.75    | 32.05   | 29.42  | 26.18  | 29.14  | 32.62  |
| 2020 | 34.85  | 34.19  | 30.88  | 21.93    | 21.10     | 21.10    | 30.95    | 34.51   | 31.67  | 28.17  | 31.37  | 35.13  |
| 2021 | 62.41  | 62.19  | 61.99  | 60.93    | 60.73     | 60.74    | 60.79    | 60.84   | 60.93  | 61.16  | 61.76  | 62.44  |
| 2022 | 64.10  | 64.19  | 64.27  | 63.87    | 63.84     | 63.93    | 64.00    | 64.10   | 64.20  | 64.30  | 65.26  | 65.35  |
| 2023 | 67.48  | 67.59  | 67.69  | 67.06    | 67.11     | 67.22    | 67.31    | 67.40   | 67.52  | 67.62  | 68.68  | 68.79  |
| 2024 | 69.99  | 70.11  | 70.22  | 69.82    | 69.50     | 69.62    | 69.72    | 69.83   | 69.95  | 70.62  | 70.85  | 70.98  |
| 2025 | 72.67  | 72.80  | 72.93  | 72.99    | 72.19     | 72.23    | 72.34    | 72.47   | 72.59  | 72.71  | 73.55  | 73.69  |
| 2026 | 75.30  | 75.45  | 75.57  | 74.87    | 74.74     | 74.85    | 74.96    | 75.09   | 75.22  | 75.35  | 76.40  | 76.54  |
| 2027 | 78.22  | 78.36  | 78.50  | 77.76    | 77.61     | 77.68    | 77.81    | 77.94   | 78.10  | 78.23  | 79.36  | 79.50  |
| 2028 | 81.14  | 81.30  | 81.45  | 80.70    | 80.63     | 80.69    | 80.83    | 80.97   | 81.15  | 81.28  | 82.65  | 82.83  |
| 2029 | 84.83  | 85.00  | 85.16  | 84.37    | 84.30     | 84.37    | 84.48    | 84.64   | 84.22  | 84.37  | 85.47  | 85.64  |
| 2030 | 87.51  | 87.70  | 87.57  | 86.46    | 86.68     | 85.53    | 85.69    | 85.84   | 86.03  | 86.19  | 87.36  | 87.55  |
| 2031 | 89.53  | 89.73  | 89.77  | 88.64    | 88.86     | 88.39    | 88.54    | 88.71   | 88.91  | 89.07  | 90.39  | 90.59  |
| 2032 | 92.27  | 92.47  | 92.59  | 91.42    | 91.60     | 91.64    | 91.81    | 91.99   | 92.20  | 92.38  | 93.65  | 93.87  |
| 2033 | 96.34  | 96.55  | 96.65  | 95.42    | 95.65     | 94.02    | 94.19    | 94.39   | 94.59  | 94.77  | 96.09  | 96.31  |
| 2034 | 98.49  | 98.72  | 97.24  | 96.01    | 96.24     | 95.79    | 95.98    | 96.17   | 96.38  | 96.57  | 98.03  | 98.25  |
| 2035 | 100.40 | 100.63 | 100.56 | 99.28    | 99.52     | 98.82    | 99.00    | 99.19   | 99.43  | 99.62  | 101.11 | 101.34 |
| 2036 | 102.77 | 103.00 | 102.93 | 101.62   | 101.89    | 101.16   | 101.36   | 101.55  | 101.79 | 101.99 | 103.52 | 103.73 |
| 2037 | 105.59 | 105.82 | 105.75 | 104.40   | 104.68    | 103.94   | 104.13   | 104.34  | 104.57 | 104.78 | 106.33 | 106.56 |
| 2038 | 108.31 | 108.55 | 108.46 | 107.11   | 107.39    | 106.62   | 106.83   | 107.04  | 107.27 | 107.49 | 109.07 | 109.30 |
| 2039 | 110.86 | 111.12 | 111.03 | 109.65   | 109.93    | 109.15   | 109.36   | 109.56  | 109.83 | 110.04 | 111.63 | 111.89 |
| 2040 | 113.79 | 114.03 | 113.96 | 112.54   | 112.81    | 112.04   | 112.24   | 112.45  | 112.71 | 112.93 | 114.58 | 114.82 |
| 2041 | 116.46 | 116.72 | 116.63 | 115.20   | 115.47    | 114.67   | 114.89   | 115.10  | 115.37 | 115.58 | 117.26 | 117.52 |

|      |       |       |       |          | T          | ABLE 1b   |          |         |       |       |       |       |
|------|-------|-------|-------|----------|------------|-----------|----------|---------|-------|-------|-------|-------|
|      |       |       |       |          | Avoi       | ded Cost  | ts       |         |       |       |       |       |
|      |       |       | Sta   | andard F | ixed Price | e Option  | for Base | Load QF |       |       |       |       |
|      |       |       |       | 0        | ff-Peak F  | orecast ( | \$/MWH)  |         |       |       |       |       |
|      |       |       |       |          |            |           |          |         |       |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr      | May        | Jun       | Jul      | Aug     | Sep   | Oct   | Nov   | Dec   |
| 2017 | 30.96 | 25.46 | 12.96 | 4.46     | 7.71       | 9.21      | 17.71    | 24.96   | 25.21 | 23.71 | 24.96 | 29.71 |
| 2018 | 24.82 | 26.66 | 24.24 | 15.66    | 11.92      | 10.25     | 17.66    | 24.16   | 24.06 | 22.13 | 24.58 | 26.67 |
| 2019 | 25.39 | 27.27 | 24.80 | 16.04    | 12.22      | 10.52     | 18.08    | 24.72   | 24.62 | 22.65 | 25.15 | 27.28 |
| 2020 | 27.90 | 29.97 | 27.24 | 17.56    | 13.34      | 11.45     | 19.82    | 27.15   | 27.04 | 24.86 | 27.63 | 29.99 |
| 2021 | 23.86 | 23.65 | 23.45 | 22.38    | 22.19      | 22.20     | 22.25    | 22.30   | 22.38 | 22.62 | 23.21 | 23.90 |
| 2022 | 24.81 | 24.90 | 24.99 | 24.59    | 24.55      | 24.64     | 24.71    | 24.81   | 24.91 | 25.01 | 25.97 | 26.07 |
| 2023 | 27.30 | 27.42 | 27.52 | 26.88    | 26.94      | 27.04     | 27.14    | 27.23   | 27.35 | 27.44 | 28.51 | 28.62 |
| 2024 | 29.30 | 29.42 | 29.53 | 29.13    | 28.81      | 28.94     | 29.03    | 29.14   | 29.26 | 29.94 | 30.17 | 30.29 |
| 2025 | 31.06 | 31.20 | 31.32 | 31.39    | 30.58      | 30.63     | 30.74    | 30.86   | 30.98 | 31.11 | 31.95 | 32.08 |
| 2026 | 32.90 | 33.04 | 33.16 | 32.46    | 32.33      | 32.44     | 32.55    | 32.68   | 32.82 | 32.94 | 33.99 | 34.13 |
| 2027 | 34.99 | 35.13 | 35.27 | 34.54    | 34.38      | 34.45     | 34.58    | 34.71   | 34.87 | 35.00 | 36.13 | 36.27 |
| 2028 | 37.08 | 37.23 | 37.39 | 36.64    | 36.57      | 36.63     | 36.77    | 36.91   | 37.09 | 37.22 | 38.59 | 38.77 |
| 2029 | 39.92 | 40.09 | 40.25 | 39.46    | 39.39      | 39.46     | 39.57    | 39.72   | 39.31 | 39.46 | 40.56 | 40.73 |
| 2030 | 41.73 | 41.92 | 41.80 | 40.68    | 40.90      | 39.75     | 39.91    | 40.06   | 40.25 | 40.41 | 41.59 | 41.77 |
| 2031 | 42.86 | 43.07 | 43.10 | 41.98    | 42.20      | 41.73     | 41.88    | 42.04   | 42.25 | 42.41 | 43.72 | 43.93 |
| 2032 | 45.01 | 45.20 | 45.33 | 44.16    | 44.34      | 44.38     | 44.55    | 44.73   | 44.93 | 45.11 | 46.39 | 46.61 |
| 2033 | 47.85 | 48.06 | 48.17 | 46.94    | 47.17      | 45.54     | 45.71    | 45.91   | 46.11 | 46.29 | 47.61 | 47.83 |
| 2034 | 48.91 | 49.14 | 47.67 | 46.43    | 46.66      | 46.22     | 46.41    | 46.59   | 46.81 | 47.00 | 48.46 | 48.67 |
| 2035 | 50.03 | 50.26 | 50.19 | 48.91    | 49.15      | 48.45     | 48.63    | 48.82   | 49.06 | 49.25 | 50.74 | 50.97 |
| 2036 | 51.59 | 51.83 | 51.76 | 50.44    | 50.71      | 49.98     | 50.18    | 50.38   | 50.61 | 50.81 | 52.34 | 52.55 |
| 2037 | 53.26 | 53.48 | 53.41 | 52.06    | 52.35      | 51.61     | 51.79    | 52.01   | 52.23 | 52.45 | 54.00 | 54.22 |
| 2038 | 54.97 | 55.20 | 55.12 | 53.77    | 54.04      | 53.27     | 53.49    | 53.69   | 53.93 | 54.14 | 55.73 | 55.96 |
| 2039 | 56.49 | 56.74 | 56.65 | 55.28    | 55.56      | 54.78     | 54.98    | 55.19   | 55.46 | 55.66 | 57.26 | 57.51 |
| 2040 | 58.37 | 58.61 | 58.54 | 57.12    | 57.39      | 56.62     | 56.82    | 57.03   | 57.28 | 57.51 | 59.15 | 59.40 |
| 2041 | 59.97 | 60.23 | 60.14 | 58.70    | 58.98      | 58.18     | 58.40    | 58.61   | 58.87 | 59.09 | 60.77 | 61.03 |

|      |       |       |       |         | 1         | TABLE 2a  | 1         |         |       |       |       |       |
|------|-------|-------|-------|---------|-----------|-----------|-----------|---------|-------|-------|-------|-------|
|      |       |       |       |         | Avo       | oided Cos | sts       |         |       |       |       |       |
|      |       |       |       | Standar | d Fixed I | Price Opt | ion for W | /ind QF |       |       |       |       |
|      |       |       |       |         | On-Peak   | Forecast  | (\$/MWH)  |         |       |       |       |       |
|      |       |       |       |         |           |           |           |         |       |       |       |       |
| Year | Jan   | Feb   | Mar   | Apr     | May       | Jun       | Jul       | Aug     | Sep   | Oct   | Nov   | Dec   |
| 2017 | 38.90 | 26.30 | 15.20 | 8.65    | 12.80     | 14.80     | 25.80     | 29.80   | 26.30 | 23.30 | 25.30 | 31.80 |
| 2018 | 27.72 | 27.12 | 24.11 | 15.98   | 15.22     | 15.22     | 24.17     | 27.41   | 24.83 | 21.65 | 24.55 | 27.97 |
| 2019 | 28.30 | 27.69 | 24.62 | 16.33   | 15.56     | 15.56     | 24.68     | 27.98   | 25.35 | 22.11 | 25.07 | 28.55 |
| 2020 | 30.70 | 30.04 | 26.73 | 17.78   | 16.95     | 16.95     | 26.80     | 30.36   | 27.52 | 24.02 | 27.22 | 30.98 |
| 2021 | 25.66 | 25.45 | 25.25 | 24.18   | 23.99     | 24.00     | 24.05     | 24.10   | 24.18 | 24.42 | 25.01 | 25.69 |
| 2022 | 26.64 | 26.74 | 26.82 | 26.42   | 26.39     | 26.47     | 26.55     | 26.64   | 26.75 | 26.84 | 27.81 | 27.90 |
| 2023 | 29.20 | 29.31 | 29.41 | 28.78   | 28.83     | 28.94     | 29.03     | 29.12   | 29.24 | 29.34 | 30.40 | 30.51 |
| 2024 | 31.19 | 31.31 | 31.42 | 31.03   | 30.71     | 30.83     | 30.93     | 31.04   | 31.16 | 31.83 | 32.06 | 32.18 |
| 2025 | 33.01 | 33.15 | 33.27 | 33.34   | 32.53     | 32.57     | 32.69     | 32.81   | 32.93 | 33.06 | 33.90 | 34.03 |
| 2026 | 34.88 | 35.03 | 35.14 | 34.44   | 34.32     | 34.42     | 34.54     | 34.66   | 34.80 | 34.92 | 35.98 | 36.11 |
| 2027 | 37.01 | 37.15 | 37.29 | 36.56   | 36.41     | 36.48     | 36.60     | 36.73   | 36.90 | 37.02 | 38.16 | 38.30 |
| 2028 | 39.14 | 39.30 | 39.45 | 38.70   | 38.63     | 38.69     | 38.83     | 38.97   | 39.15 | 39.28 | 40.65 | 40.83 |
| 2029 | 42.02 | 42.19 | 42.35 | 41.56   | 41.49     | 41.56     | 41.67     | 41.83   | 41.42 | 41.56 | 42.67 | 42.84 |
| 2030 | 43.87 | 44.06 | 43.94 | 42.82   | 43.04     | 41.89     | 42.05     | 42.20   | 42.39 | 42.55 | 43.73 | 43.91 |
| 2031 | 45.04 | 45.24 | 45.28 | 44.16   | 44.37     | 43.91     | 44.06     | 44.22   | 44.42 | 44.59 | 45.90 | 46.10 |
| 2032 | 47.19 | 47.39 | 47.52 | 46.34   | 46.52     | 46.56     | 46.73     | 46.91   | 47.12 | 47.30 | 48.57 | 48.79 |
| 2033 | 50.13 | 50.34 | 50.44 | 49.21   | 49.44     | 47.82     | 47.99     | 48.18   | 48.38 | 48.56 | 49.88 | 50.10 |
| 2034 | 51.25 | 51.47 | 50.00 | 48.77   | 49.00     | 48.55     | 48.74     | 48.93   | 49.14 | 49.33 | 50.79 | 51.01 |
| 2035 | 52.38 | 52.62 | 52.55 | 51.26   | 51.51     | 50.81     | 50.99     | 51.18   | 51.41 | 51.61 | 53.10 | 53.33 |
| 2036 | 53.96 | 54.20 | 54.13 | 52.82   | 53.08     | 52.36     | 52.55     | 52.75   | 52.99 | 53.18 | 54.72 | 54.92 |
| 2037 | 55.70 | 55.93 | 55.86 | 54.51   | 54.79     | 54.05     | 54.24     | 54.45   | 54.68 | 54.89 | 56.44 | 56.67 |
| 2038 | 57.46 | 57.70 | 57.61 | 56.26   | 56.54     | 55.77     | 55.98     | 56.19   | 56.42 | 56.64 | 58.22 | 58.45 |
| 2039 | 59.04 | 59.29 | 59.20 | 57.82   | 58.10     | 57.32     | 57.53     | 57.73   | 58.00 | 58.21 | 59.81 | 60.06 |
| 2040 | 60.96 | 61.20 | 61.12 | 59.71   | 59.98     | 59.21     | 59.40     | 59.62   | 59.87 | 60.10 | 61.74 | 61.98 |
| 2041 | 62.61 | 62.87 | 62.78 | 61.35   | 61.63     | 60.83     | 61.04     | 61.26   | 61.52 | 61.73 | 63.41 | 63.67 |

|      | TABLE 2b |       |       |       |            |          |          |       |       |       |       |       |  |  |
|------|----------|-------|-------|-------|------------|----------|----------|-------|-------|-------|-------|-------|--|--|
|      |          |       |       |       | Ave        | oided Co | sts      |       |       |       |       |       |  |  |
|      |          |       |       |       | rd Fixed I |          |          |       |       |       |       |       |  |  |
|      |          |       |       | (     | Off-Peak   | Forecast | (\$/MWH) | )     |       |       |       |       |  |  |
|      | -        |       |       | -     |            |          |          | -     |       |       |       |       |  |  |
| Year | Jan      | Feb   | Mar   | Apr   | May        | Jun      | Jul      | Aug   | Sep   | Oct   | Nov   | Dec   |  |  |
| 2017 | 27.05    | 21.55 | 9.05  | 0.55  | 3.80       | 5.30     | 13.80    | 21.05 | 21.30 | 19.80 | 21.05 | 25.80 |  |  |
| 2018 | 20.83    | 22.67 | 20.25 | 11.67 | 7.93       | 6.26     | 13.67    | 20.17 | 20.07 | 18.14 | 20.59 | 22.68 |  |  |
| 2019 | 21.32    | 23.20 | 20.73 | 11.97 | 8.15       | 6.45     | 14.01    | 20.65 | 20.55 | 18.58 | 21.08 | 23.21 |  |  |
| 2020 | 23.75    | 25.82 | 23.09 | 13.41 | 9.19       | 7.30     | 15.67    | 23.00 | 22.89 | 20.71 | 23.48 | 25.84 |  |  |
| 2021 | 19.63    | 19.42 | 19.22 | 18.15 | 17.96      | 17.97    | 18.02    | 18.07 | 18.15 | 18.39 | 18.98 | 19.67 |  |  |
| 2022 | 20.50    | 20.59 | 20.68 | 20.28 | 20.24      | 20.33    | 20.40    | 20.50 | 20.60 | 20.70 | 21.66 | 21.76 |  |  |
| 2023 | 22.91    | 23.03 | 23.13 | 22.49 | 22.55      | 22.65    | 22.75    | 22.84 | 22.96 | 23.05 | 24.12 | 24.23 |  |  |
| 2024 | 24.83    | 24.95 | 25.06 | 24.66 | 24.34      | 24.47    | 24.56    | 24.67 | 24.79 | 25.47 | 25.70 | 25.82 |  |  |
| 2025 | 26.50    | 26.64 | 26.76 | 26.83 | 26.02      | 26.07    | 26.18    | 26.30 | 26.42 | 26.55 | 27.39 | 27.52 |  |  |
| 2026 | 28.25    | 28.39 | 28.51 | 27.81 | 27.68      | 27.79    | 27.90    | 28.03 | 28.17 | 28.29 | 29.34 | 29.48 |  |  |
| 2027 | 30.25    | 30.39 | 30.53 | 29.80 | 29.64      | 29.71    | 29.84    | 29.97 | 30.13 | 30.26 | 31.39 | 31.53 |  |  |
| 2028 | 32.25    | 32.40 | 32.56 | 31.81 | 31.74      | 31.80    | 31.94    | 32.08 | 32.26 | 32.39 | 33.76 | 33.94 |  |  |
| 2029 | 35.00    | 35.17 | 35.33 | 34.54 | 34.47      | 34.54    | 34.65    | 34.80 | 34.39 | 34.54 | 35.64 | 35.81 |  |  |
| 2030 | 36.71    | 36.90 | 36.78 | 35.66 | 35.88      | 34.73    | 34.89    | 35.04 | 35.23 | 35.39 | 36.57 | 36.75 |  |  |
| 2031 | 37.74    | 37.95 | 37.98 | 36.86 | 37.08      | 36.61    | 36.76    | 36.92 | 37.13 | 37.29 | 38.60 | 38.81 |  |  |
| 2032 | 39.80    | 39.99 | 40.12 | 38.95 | 39.13      | 39.17    | 39.34    | 39.52 | 39.72 | 39.90 | 41.18 | 41.40 |  |  |
| 2033 | 42.54    | 42.75 | 42.86 | 41.63 | 41.86      | 40.23    | 40.40    | 40.60 | 40.80 | 40.98 | 42.30 | 42.52 |  |  |
| 2034 | 43.49    | 43.72 | 42.25 | 41.01 | 41.24      | 40.80    | 40.99    | 41.17 | 41.39 | 41.58 | 43.04 | 43.25 |  |  |
| 2035 | 44.51    | 44.74 | 44.67 | 43.39 | 43.63      | 42.93    | 43.11    | 43.30 | 43.54 | 43.73 | 45.22 | 45.45 |  |  |
| 2036 | 45.96    | 46.20 | 46.13 | 44.81 | 45.08      | 44.35    | 44.55    | 44.75 | 44.98 | 45.18 | 46.71 | 46.92 |  |  |
| 2037 | 47.52    | 47.74 | 47.67 | 46.32 | 46.61      | 45.87    | 46.05    | 46.27 | 46.49 | 46.71 | 48.26 | 48.48 |  |  |
| 2038 | 49.12    | 49.35 | 49.27 | 47.92 | 48.19      | 47.42    | 47.64    | 47.84 | 48.08 | 48.29 | 49.88 | 50.11 |  |  |
| 2039 | 50.53    | 50.78 | 50.69 | 49.32 | 49.60      | 48.82    | 49.02    | 49.23 | 49.50 | 49.70 | 51.30 | 51.55 |  |  |
| 2040 | 52.29    | 52.53 | 52.46 | 51.04 | 51.31      | 50.54    | 50.74    | 50.95 | 51.20 | 51.43 | 53.07 | 53.32 |  |  |
| 2041 | 53.78    | 54.04 | 53.95 | 52.51 | 52.79      | 51.99    | 52.21    | 52.42 | 52.68 | 52.90 | 54.58 | 54.84 |  |  |

|      | TABLE 3a |       |       |         |           |           |           |         |       |       |       |       |  |  |
|------|----------|-------|-------|---------|-----------|-----------|-----------|---------|-------|-------|-------|-------|--|--|
|      |          |       |       |         | Ave       | oided Co  | sts       |         |       |       |       |       |  |  |
|      |          |       |       | Standar | d Fixed I | Price Opt | ion for S | olar QF |       |       |       |       |  |  |
|      |          |       |       | (       | On-Peak   | Forecast  | (\$/MWH)  |         |       |       |       |       |  |  |
|      |          |       |       |         |           |           |           |         |       |       |       |       |  |  |
| Year | Jan      | Feb   | Mar   | Apr     | Мау       | Jun       | Jul       | Aug     | Sep   | Oct   | Nov   | Dec   |  |  |
| 2017 | 42.81    | 30.21 | 19.11 | 12.56   | 16.71     | 18.71     | 29.71     | 33.71   | 30.21 | 27.21 | 29.21 | 35.71 |  |  |
| 2018 | 31.71    | 31.11 | 28.10 | 19.97   | 19.21     | 19.21     | 28.16     | 31.40   | 28.82 | 25.64 | 28.54 | 31.96 |  |  |
| 2019 | 32.37    | 31.76 | 28.69 | 20.40   | 19.63     | 19.63     | 28.75     | 32.05   | 29.42 | 26.18 | 29.14 | 32.62 |  |  |
| 2020 | 34.85    | 34.19 | 30.88 | 21.93   | 21.10     | 21.10     | 30.95     | 34.51   | 31.67 | 28.17 | 31.37 | 35.13 |  |  |
| 2021 | 28.96    | 28.74 | 28.54 | 27.48   | 27.28     | 27.29     | 27.34     | 27.39   | 27.48 | 27.71 | 28.31 | 28.99 |  |  |
| 2022 | 30.00    | 30.09 | 30.18 | 29.78   | 29.75     | 29.83     | 29.90     | 30.00   | 30.11 | 30.20 | 31.16 | 31.26 |  |  |
| 2023 | 32.61    | 32.73 | 32.83 | 32.19   | 32.25     | 32.35     | 32.45     | 32.54   | 32.65 | 32.75 | 33.82 | 33.93 |  |  |
| 2024 | 34.67    | 34.80 | 34.91 | 34.51   | 34.19     | 34.31     | 34.41     | 34.52   | 34.64 | 35.31 | 35.54 | 35.66 |  |  |
| 2025 | 36.56    | 36.70 | 36.82 | 36.89   | 36.08     | 36.12     | 36.24     | 36.36   | 36.48 | 36.61 | 37.45 | 37.58 |  |  |
| 2026 | 38.50    | 38.65 | 38.76 | 38.06   | 37.94     | 38.04     | 38.16     | 38.28   | 38.42 | 38.54 | 39.60 | 39.73 |  |  |
| 2027 | 40.70    | 40.84 | 40.98 | 40.25   | 40.10     | 40.17     | 40.29     | 40.42   | 40.59 | 40.71 | 41.85 | 41.99 |  |  |
| 2028 | 42.90    | 43.06 | 43.21 | 42.46   | 42.39     | 42.45     | 42.59     | 42.74   | 42.91 | 43.04 | 44.41 | 44.59 |  |  |
| 2029 | 45.85    | 46.02 | 46.18 | 45.39   | 45.32     | 45.39     | 45.50     | 45.66   | 45.25 | 45.39 | 46.50 | 46.67 |  |  |
| 2030 | 47.78    | 47.97 | 47.84 | 46.73   | 46.95     | 45.80     | 45.96     | 46.11   | 46.30 | 46.46 | 47.63 | 47.82 |  |  |
| 2031 | 49.03    | 49.23 | 49.27 | 48.15   | 48.36     | 47.89     | 48.05     | 48.21   | 48.41 | 48.58 | 49.89 | 50.09 |  |  |
| 2032 | 51.26    | 51.45 | 51.58 | 50.41   | 50.59     | 50.63     | 50.79     | 50.97   | 51.18 | 51.36 | 52.63 | 52.85 |  |  |
| 2033 | 54.26    | 54.47 | 54.58 | 53.34   | 53.58     | 51.95     | 52.12     | 52.32   | 52.51 | 52.70 | 54.01 | 54.23 |  |  |
| 2034 | 55.46    | 55.69 | 54.22 | 52.98   | 53.21     | 52.77     | 52.96     | 53.15   | 53.36 | 53.55 | 55.01 | 55.22 |  |  |
| 2035 | 56.68    | 56.91 | 56.85 | 55.56   | 55.81     | 55.11     | 55.29     | 55.48   | 55.71 | 55.90 | 57.39 | 57.63 |  |  |
| 2036 | 58.35    | 58.59 | 58.52 | 57.21   | 57.47     | 56.75     | 56.94     | 57.14   | 57.38 | 57.57 | 59.10 | 59.31 |  |  |
| 2037 | 60.17    | 60.40 | 60.33 | 58.98   | 59.26     | 58.52     | 58.71     | 58.92   | 59.15 | 59.36 | 60.91 | 61.14 |  |  |
| 2038 | 62.02    | 62.25 | 62.16 | 60.82   | 61.09     | 60.32     | 60.54     | 60.74   | 60.98 | 61.19 | 62.77 | 63.01 |  |  |
| 2039 | 63.68    | 63.93 | 63.84 | 62.46   | 62.74     | 61.96     | 62.17     | 62.37   | 62.64 | 62.85 | 64.45 | 64.70 |  |  |
| 2040 | 65.69    | 65.94 | 65.86 | 64.44   | 64.71     | 63.94     | 64.14     | 64.35   | 64.61 | 64.83 | 66.48 | 66.72 |  |  |
| 2041 | 67.43    | 67.69 | 67.60 | 66.17   | 66.45     | 65.65     | 65.86     | 66.08   | 66.34 | 66.55 | 68.23 | 68.49 |  |  |

|      | TABLE 3b |       |       |         |           |           |           |         |       |       |       |       |  |  |
|------|----------|-------|-------|---------|-----------|-----------|-----------|---------|-------|-------|-------|-------|--|--|
|      |          |       |       |         | Ave       | oided Co  | sts       |         |       |       |       |       |  |  |
|      |          |       |       | Standar | d Fixed I | Price Opt | ion for S | olar QF |       |       |       |       |  |  |
|      |          |       |       | C       | Off-Peak  | Forecast  | (\$/MWH)  |         |       |       |       |       |  |  |
|      |          |       |       |         |           |           |           |         |       |       |       |       |  |  |
| Year | Jan      | Feb   | Mar   | Apr     | May       | Jun       | Jul       | Aug     | Sep   | Oct   | Nov   | Dec   |  |  |
| 2017 | 30.96    | 25.46 | 12.96 | 4.46    | 7.71      | 9.21      | 17.71     | 24.96   | 25.21 | 23.71 | 24.96 | 29.71 |  |  |
| 2018 | 24.82    | 26.66 | 24.24 | 15.66   | 11.92     | 10.25     | 17.66     | 24.16   | 24.06 | 22.13 | 24.58 | 26.67 |  |  |
| 2019 | 25.39    | 27.27 | 24.80 | 16.04   | 12.22     | 10.52     | 18.08     | 24.72   | 24.62 | 22.65 | 25.15 | 27.28 |  |  |
| 2020 | 27.90    | 29.97 | 27.24 | 17.56   | 13.34     | 11.45     | 19.82     | 27.15   | 27.04 | 24.86 | 27.63 | 29.99 |  |  |
| 2021 | 23.86    | 23.65 | 23.45 | 22.38   | 22.19     | 22.20     | 22.25     | 22.30   | 22.38 | 22.62 | 23.21 | 23.90 |  |  |
| 2022 | 24.81    | 24.90 | 24.99 | 24.59   | 24.55     | 24.64     | 24.71     | 24.81   | 24.91 | 25.01 | 25.97 | 26.07 |  |  |
| 2023 | 27.30    | 27.42 | 27.52 | 26.88   | 26.94     | 27.04     | 27.14     | 27.23   | 27.35 | 27.44 | 28.51 | 28.62 |  |  |
| 2024 | 29.30    | 29.42 | 29.53 | 29.13   | 28.81     | 28.94     | 29.03     | 29.14   | 29.26 | 29.94 | 30.17 | 30.29 |  |  |
| 2025 | 31.06    | 31.20 | 31.32 | 31.39   | 30.58     | 30.63     | 30.74     | 30.86   | 30.98 | 31.11 | 31.95 | 32.08 |  |  |
| 2026 | 32.90    | 33.04 | 33.16 | 32.46   | 32.33     | 32.44     | 32.55     | 32.68   | 32.82 | 32.94 | 33.99 | 34.13 |  |  |
| 2027 | 34.99    | 35.13 | 35.27 | 34.54   | 34.38     | 34.45     | 34.58     | 34.71   | 34.87 | 35.00 | 36.13 | 36.27 |  |  |
| 2028 | 37.08    | 37.23 | 37.39 | 36.64   | 36.57     | 36.63     | 36.77     | 36.91   | 37.09 | 37.22 | 38.59 | 38.77 |  |  |
| 2029 | 39.92    | 40.09 | 40.25 | 39.46   | 39.39     | 39.46     | 39.57     | 39.72   | 39.31 | 39.46 | 40.56 | 40.73 |  |  |
| 2030 | 41.73    | 41.92 | 41.80 | 40.68   | 40.90     | 39.75     | 39.91     | 40.06   | 40.25 | 40.41 | 41.59 | 41.77 |  |  |
| 2031 | 42.86    | 43.07 | 43.10 | 41.98   | 42.20     | 41.73     | 41.88     | 42.04   | 42.25 | 42.41 | 43.72 | 43.93 |  |  |
| 2032 | 45.01    | 45.20 | 45.33 | 44.16   | 44.34     | 44.38     | 44.55     | 44.73   | 44.93 | 45.11 | 46.39 | 46.61 |  |  |
| 2033 | 47.85    | 48.06 | 48.17 | 46.94   | 47.17     | 45.54     | 45.71     | 45.91   | 46.11 | 46.29 | 47.61 | 47.83 |  |  |
| 2034 | 48.91    | 49.14 | 47.67 | 46.43   | 46.66     | 46.22     | 46.41     | 46.59   | 46.81 | 47.00 | 48.46 | 48.67 |  |  |
| 2035 | 50.03    | 50.26 | 50.19 | 48.91   | 49.15     | 48.45     | 48.63     | 48.82   | 49.06 | 49.25 | 50.74 | 50.97 |  |  |
| 2036 | 51.59    | 51.83 | 51.76 | 50.44   | 50.71     | 49.98     | 50.18     | 50.38   | 50.61 | 50.81 | 52.34 | 52.55 |  |  |
| 2037 | 53.26    | 53.48 | 53.41 | 52.06   | 52.35     | 51.61     | 51.79     | 52.01   | 52.23 | 52.45 | 54.00 | 54.22 |  |  |
| 2038 | 54.97    | 55.20 | 55.12 | 53.77   | 54.04     | 53.27     | 53.49     | 53.69   | 53.93 | 54.14 | 55.73 | 55.96 |  |  |
| 2039 | 56.49    | 56.74 | 56.65 | 55.28   | 55.56     | 54.78     | 54.98     | 55.19   | 55.46 | 55.66 | 57.26 | 57.51 |  |  |
| 2040 | 58.37    | 58.61 | 58.54 | 57.12   | 57.39     | 56.62     | 56.82     | 57.03   | 57.28 | 57.51 | 59.15 | 59.40 |  |  |
| 2041 | 59.97    | 60.23 | 60.14 | 58.70   | 58.98     | 58.18     | 58.40     | 58.61   | 58.87 | 59.09 | 60.77 | 61.03 |  |  |

#### PRICING OPTIONS FOR STANDARD PPA (Continued)

#### 2) Renewable Fixed Price Option

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

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

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

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

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

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

Sellers with PPAs 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  |        |        |         |           |           |           |          |        |        |        |        |  |  |
|------|---|--------|--------|---------|-----------|-----------|-----------|----------|--------|--------|--------|--------|--|--|
|      |   |        |        |         | Renewab   | le Avoide | d Costs   |          |        |        |        |        |  |  |
|      |   |        | Re     | newable | Fixed Pr  | ice Optio | n for Bas | e Load C | ۱F     |        |        |        |  |  |
|      |   |        |        | (       | On-Peak I | Forecast  | (\$/MWH)  |          |        |        |        |        |  |  |
|      | ar lan Eah Mar Anr May lun lul Aug San Oct Nov Da |        |        |         |           |           |           |          |        |        |        |        |  |  |
| Year | Jan   | Feb    | Mar    | Apr     | May       | Jun       | Jul       | Aug      | Sep    | Oct    | Nov    | Dec    |  |  |
| 2017 | 31.96   | 31.36  | 28.35  | 20.22   | 19.46     | 19.46     | 28.41     | 31.65    | 29.07  | 25.89  | 28.79  | 32.21  |  |  |
| 2018 | 32.63   | 32.02  | 28.95  | 20.66   | 19.89     | 19.89     | 29.01     | 32.31    | 29.68  | 26.44  | 29.40  | 32.88  |  |  |
| 2019 | 35.13   | 34.47  | 31.16  | 22.21   | 21.38     | 21.38     | 31.23     | 34.79    | 31.95  | 28.45  | 31.65  | 35.41  |  |  |
| 2020 | 105.59  | 105.58 | 104.91 | 105.31  | 108.12    | 107.33    | 107.05    | 106.95   | 105.82 | 104.97 | 105.70 | 104.81 |  |  |
| 2021 | 107.97  | 108.18 | 106.86 | 107.80  | 110.30    | 109.63    | 109.13    | 109.57   | 108.25 | 107.36 | 108.50 | 107.34 |  |  |
| 2022 | 110.29  | 110.18 | 108.51 | 110.03  | 112.64    | 111.74    | 111.34    | 111.31   | 110.35 | 109.47 | 110.72 | 109.45 |  |  |
| 2023 | 112.83  | 112.45 | 110.71 | 112.53  | 114.68    | 114.03    | 113.73    | 113.41   | 112.67 | 111.65 | 113.16 | 112.19 |  |  |
| 2024 | 114.30  | 114.43 | 112.71 | 114.48  | 116.87    | 115.98    | 115.88    | 115.65   | 115.49 | 113.39 | 114.27 | 114.38 |  |  |
| 2025 | 116.91  | 117.20 | 115.28 | 117.34  | 120.36    | 119.33    | 118.49    | 118.61   | 117.89 | 115.92 | 116.94 | 116.63 |  |  |
| 2026 | 119.80  | 119.51 | 118.23 | 120.15  | 124.05    | 121.00    | 121.00    | 121.36   | 121.11 | 118.42 | 120.03 | 119.20 |  |  |
| 2027 | 122.14  | 121.76 | 120.31 | 122.17  | 127.41    | 123.38    | 123.05    | 124.32   | 123.30 | 120.82 | 121.96 | 121.54 |  |  |
| 2028 | 124.42  | 123.50 | 121.73 | 124.67  | 129.54    | 125.27    | 125.89    | 125.90   | 125.14 | 123.37 | 124.32 | 123.63 |  |  |
| 2029 | 127.02  | 126.81 | 124.48 | 127.44  | 136.23    | 128.72    | 128.78    | 128.78   | 128.83 | 125.88 | 126.59 | 126.49 |  |  |
| 2030 | 129.65  | 129.39 | 127.38 | 129.92  | 139.73    | 132.73    | 130.84    | 130.74   | 131.95 | 128.33 | 128.82 | 128.86 |  |  |
| 2031 | 132.04  | 131.60 | 130.17 | 133.11  | 142.39    | 136.41    | 133.28    | 134.11   | 134.29 | 130.94 | 131.91 | 131.53 |  |  |
| 2032 | 134.05  | 133.61 | 132.16 | 135.15  | 144.58    | 138.50    | 135.32    | 136.16   | 136.35 | 132.94 | 133.93 | 133.54 |  |  |
| 2033 | 137.18  | 136.73 | 135.24 | 138.30  | 147.94    | 141.72    | 138.47    | 139.33   | 139.53 | 136.04 | 137.05 | 136.65 |  |  |
| 2034 | 139.98  | 139.52 | 138.00 | 141.12  | 150.95    | 144.61    | 141.30    | 142.17   | 142.37 | 138.82 | 139.85 | 139.44 |  |  |
| 2035 | 142.53  | 142.06 | 140.51 | 143.69  | 153.71    | 147.25    | 143.87    | 144.76   | 144.97 | 141.35 | 142.39 | 141.98 |  |  |
| 2036 | 144.86  | 144.38 | 142.81 | 146.04  | 156.22    | 149.66    | 146.23    | 147.13   | 147.34 | 143.66 | 144.72 | 144.30 |  |  |
| 2037 | 148.08  | 147.59 | 145.99 | 149.29  | 159.70    | 152.99    | 149.48    | 150.41   | 150.62 | 146.85 | 147.94 | 147.51 |  |  |
| 2038 | 150.94  | 150.44 | 148.81 | 152.17  | 162.78    | 155.94    | 152.36    | 153.31   | 153.52 | 149.69 | 150.80 | 150.36 |  |  |
| 2039 | 153.85  | 153.34 | 151.68 | 155.11  | 165.92    | 158.95    | 155.30    | 156.27   | 156.48 | 152.58 | 153.71 | 153.26 |  |  |
| 2040 | 156.54  | 156.02 | 154.33 | 157.81  | 168.81    | 161.72    | 158.01    | 158.99   | 159.21 | 155.24 | 156.39 | 155.94 |  |  |
| 2041 | 159.85  | 159.32 | 157.59 | 161.15  | 172.39    | 165.14    | 161.36    | 162.36   | 162.58 | 158.52 | 159.70 | 159.24 |  |  |

|              |                |                |                     |                     | Т              | ABLE 4b             |                |                |                     |              |              |                |
|--------------|----------------|----------------|---------------------|---------------------|----------------|---------------------|----------------|----------------|---------------------|--------------|--------------|----------------|
|              |                |                |                     |                     |                | le Avoide           |                |                |                     |              |              |                |
|              |                |                | Re                  |                     |                | ce Optio            |                |                | F                   |              |              |                |
|              |                |                |                     | C                   | Off-Peak F     | Forecast            | (\$/MWH)       |                |                     |              |              |                |
| Veer         | lan            | Tab            | Mar                 | A                   | Max            | lum                 | 11             | A              | Sen                 | Ort          | Nev          | Dee            |
| Year<br>2017 | Jan<br>25.07   | Feb<br>26.91   | <b>Mar</b><br>24.49 | <b>Apr</b><br>15.91 | May<br>12.17   | <b>Jun</b><br>10.50 | Jul<br>17.91   | Aug<br>24.41   | <b>Sep</b><br>24.31 | Oct<br>22.38 | Nov<br>24.83 | Dec<br>26.92   |
| 2017         | 25.65          | 20.91          | 24.49               | 16.30               | 12.17          | 10.30               | 17.91          | 24.41          | 24.31               | 22.30        | 24.83        | 20.92          |
| 2018         | 28.18          | 30.25          | 25.00               | 17.84               | 12.40          | 11.73               | 20.10          | 24.90          | 24.88               | 25.14        | 27.91        | 30.27          |
|              | 55.06          | 55.29          | 56.65               | 55.55               | 52.58          | 52.78               | 53.04          | 54.06          | 54.85               | 55.93        | 55.76        | 56.14          |
| 2020<br>2021 | 55.08<br>56.97 | 55.29<br>56.29 | 57.78               | 56.57               | 52.58<br>54.03 | 52.78<br>54.07      | 53.04<br>54.64 | 54.00<br>54.94 | 54.85<br>55.96      | 55.95        | 55.61        | 57.11          |
| 2021         | 57.78          | 57.49          | 59.46               | 57.46               | 54.03<br>54.79 | 54.07<br>55.12      |                | 55.58          | 57.03               | 58.82        | 56.52        | 58.16          |
| 2022         | 58.53          | 57.49          | 60.63               | 59.03               | 54.79<br>55.13 | 56.12               | 56.44<br>57.38 | 56.90          | 58.03               | 60.02        | 57.37        | 59.34          |
| 2023         | 59.00          | 59.06          | 61.83               | 59.03               | 55.44          | 57.84               | 56.81          | 57.13          | 58.45               | 60.02        | 59.15        | 59.34<br>59.71 |
| 2024         | 60.20          | 60.19          | 63.12               | 59.74               | 55.43          | 58.15               | 58.02          | 58.89          | 58.99               | 61.58        | 61.14        | 60.59          |
| 2025         | 60.49          | 61.29          | 63.41               | 60.15               | 56.02          | 58.98               | 58.83          | 59.45          | 58.83               | 62.40        | 61.28        | 61.32          |
| 2020         | 62.57          | 62.55          | 64.16               | 61.72               | 55.88          | 60.06               | 60.36          | 59.81          | 60.16               | 64.24        | 62.01        | 62.45          |
| 2027         | 63.42          | 63.96          | 66.16               | 63.26               | 55.35          | 61.40               | 61.55          | 60.38          | 61.59               | 64.74        | 62.71        | 64.41          |
| 2020         | 63.86          | 64.58          | 67.38               | 64.49               | 51.11          | 61.67               | 62.62          | 61.41          | 62.76               | 65.44        | 64.59        | 65.53          |
| 2020         | 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          |

|      | TABLE 5a                                 |       |       |        |        |        |        |        |        |       |       |       |
|------|--|-------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
|      | Renewable Avoided Costs                  |       |       |        |        |        |        |        |        |       |       |       |
|      | Renewable Fixed Price Option for Wind QF |       |       |        |        |        |        |        |        |       |       |       |
|      | On-Peak Forecast (\$/MWH)                |       |       |        |        |        |        |        |        |       |       |       |
| Year | Jan                                      | Feb   | Mar   | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct   | Nov   | Dec   |
| 2017 | 28.05                                    | 27.45 | 24.44 | 16.31  | 15.55  | 15.55  | 24.50  | 27.74  | 25.16  | 21.98 | 24.88 | 28.30 |
| 2018 | 28.64                                    | 28.03 | 24.96 | 16.67  | 15.90  | 15.90  | 25.02  | 28.32  | 25.69  | 22.45 | 25.41 | 28.89 |
| 2019 | 31.06                                    | 30.40 | 27.09 | 18.14  | 17.31  | 17.31  | 27.16  | 30.72  | 27.88  | 24.38 | 27.58 | 31.34 |
| 2020 | 65.63                                    | 65.62 | 64.95 | 65.35  | 68.16  | 67.37  | 67.09  | 66.99  | 65.86  | 65.01 | 65.74 | 64.85 |
| 2021 | 67.13                                    | 67.33 | 66.01 | 66.95  | 69.45  | 68.79  | 68.28  | 68.73  | 67.40  | 66.52 | 67.66 | 66.49 |
| 2022 | 68.65                                    | 68.54 | 66.88 | 68.40  | 71.01  | 70.11  | 69.71  | 69.68  | 68.71  | 67.83 | 69.09 | 67.82 |
| 2023 | 70.27                                    | 69.89 | 68.16 | 69.98  | 72.13  | 71.48  | 71.17  | 70.85  | 70.12  | 69.10 | 70.60 | 69.63 |
| 2024 | 71.17                                    | 71.30 | 69.58 | 71.35  | 73.75  | 72.85  | 72.75  | 72.52  | 72.36  | 70.27 | 71.15 | 71.26 |
| 2025 | 72.83                                    | 73.12 | 71.19 | 73.26  | 76.28  | 75.24  | 74.41  | 74.52  | 73.80  | 71.83 | 72.86 | 72.55 |
| 2026 | 74.86                                    | 74.57 | 73.29 | 75.21  | 79.12  | 76.06  | 76.06  | 76.42  | 76.17  | 73.48 | 75.09 | 74.26 |
| 2027 | 76.34                                    | 75.95 | 74.50 | 76.36  | 81.61  | 77.57  | 77.25  | 78.51  | 77.50  | 75.01 | 76.15 | 75.73 |
| 2028 | 77.73                                    | 76.81 | 75.04 | 77.98  | 82.85  | 78.58  | 79.21  | 79.22  | 78.45  | 76.68 | 77.63 | 76.94 |
| 2029 | 79.43                                    | 79.22 | 76.89 | 79.86  | 88.64  | 81.13  | 81.20  | 81.20  | 81.24  | 78.29 | 79.00 | 78.91 |
| 2030 | 81.14                                    | 80.88 | 78.87 | 81.41  | 91.22  | 84.22  | 82.33  | 82.23  | 83.44  | 79.82 | 80.31 | 80.35 |
| 2031 | 82.59                                    | 82.15 | 80.72 | 83.66  | 92.94  | 86.96  | 83.83  | 84.66  | 84.84  | 81.49 | 82.46 | 82.08 |
| 2032 | 83.94                                    | 83.50 | 82.05 | 85.04  | 94.47  | 88.39  | 85.21  | 86.05  | 86.24  | 82.83 | 83.82 | 83.43 |
| 2033 | 85.81                                    | 85.36 | 83.88 | 86.93  | 96.58  | 90.36  | 87.11  | 87.97  | 88.16  | 84.68 | 85.69 | 85.29 |
| 2034 | 87.46                                    | 87.00 | 85.49 | 88.60  | 98.43  | 92.09  | 88.78  | 89.66  | 89.85  | 86.30 | 87.33 | 86.93 |
| 2035 | 89.16                                    | 88.68 | 87.14 | 90.32  | 100.34 | 93.88  | 90.50  | 91.39  | 91.59  | 87.97 | 89.02 | 88.61 |
| 2036 | 90.61                                    | 90.13 | 88.56 | 91.79  | 101.97 | 95.41  | 91.98  | 92.88  | 93.09  | 89.41 | 90.47 | 90.05 |
| 2037 | 92.63                                    | 92.14 | 90.53 | 93.83  | 104.24 | 97.53  | 94.02  | 94.95  | 95.16  | 91.40 | 92.49 | 92.06 |
| 2038 | 94.41                                    | 93.91 | 92.28 | 95.64  | 106.25 | 99.41  | 95.84  | 96.78  | 97.00  | 93.16 | 94.27 | 93.83 |
| 2039 | 96.24                                    | 95.73 | 94.07 | 97.49  | 108.31 | 101.33 | 97.69  | 98.65  | 98.87  | 94.96 | 96.09 | 95.65 |
| 2040 | 97.81                                    | 97.29 | 95.60 | 99.08  | 110.08 | 102.99 | 99.28  | 100.26 | 100.48 | 96.51 | 97.66 | 97.21 |
| 2041 | 99.99                                    | 99.46 | 97.73 | 101.29 | 112.53 | 105.29 | 101.50 | 102.50 | 102.73 | 98.67 | 99.84 | 99.38 |

|      | TABLE 5b                                 |       |       |       |       |       |       |       |       |       |       |       |
|------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      | Renewable Avoided Costs                  |       |       |       |       |       |       |       |       |       |       |       |
|      | Renewable Fixed Price Option for Wind QF |       |       |       |       |       |       |       |       |       |       |       |
|      | Off-Peak Forecast (\$/MWH)               |       |       |       |       |       |       |       |       |       |       |       |
| Year | Jan                                      | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   |
| 2017 | 21.23                                    | 23.07 | 20.65 | 12.07 | 8.33  | 6.66  | 14.07 | 20.57 | 20.47 | 18.54 | 20.99 | 23.08 |
| 2018 | 21.74                                    | 23.62 | 21.15 | 12.39 | 8.57  | 6.87  | 14.43 | 21.07 | 20.97 | 19.00 | 21.50 | 23.63 |
| 2019 | 24.19                                    | 26.26 | 23.53 | 13.85 | 9.63  | 7.74  | 16.11 | 23.44 | 23.33 | 21.15 | 23.92 | 26.28 |
| 2020 | 50.91                                    | 51.14 | 52.50 | 51.40 | 48.43 | 48.63 | 48.89 | 49.91 | 50.70 | 51.78 | 51.61 | 51.99 |
| 2021 | 52.74                                    | 52.06 | 53.55 | 52.34 | 49.80 | 49.84 | 50.41 | 50.71 | 51.73 | 53.52 | 51.38 | 52.88 |
| 2022 | 53.47                                    | 53.18 | 55.15 | 53.15 | 50.48 | 50.81 | 52.13 | 51.27 | 52.72 | 54.51 | 52.21 | 53.85 |
| 2023 | 54.14                                    | 54.18 | 56.24 | 54.64 | 50.74 | 51.77 | 52.99 | 52.51 | 53.64 | 55.63 | 52.98 | 54.95 |
| 2024 | 54.53                                    | 54.59 | 57.36 | 54.40 | 50.97 | 53.37 | 52.34 | 52.66 | 53.98 | 55.79 | 54.68 | 55.24 |
| 2025 | 55.64                                    | 55.63 | 58.56 | 55.18 | 50.87 | 53.59 | 53.46 | 54.33 | 54.43 | 57.02 | 56.58 | 56.03 |
| 2026 | 55.84                                    | 56.64 | 58.76 | 55.50 | 51.37 | 54.33 | 54.18 | 54.80 | 54.18 | 57.75 | 56.63 | 56.67 |
| 2027 | 57.83                                    | 57.81 | 59.42 | 56.98 | 51.14 | 55.32 | 55.62 | 55.07 | 55.42 | 59.50 | 57.27 | 57.71 |
| 2028 | 58.59                                    | 59.13 | 61.33 | 58.43 | 50.52 | 56.57 | 56.72 | 55.55 | 56.76 | 59.91 | 57.88 | 59.58 |
| 2029 | 58.94                                    | 59.66 | 62.46 | 59.57 | 46.19 | 56.75 | 57.70 | 56.49 | 57.84 | 60.52 | 59.67 | 60.61 |
| 2030 | 59.83                                    | 60.63 | 63.74 | 59.59 | 45.87 | 57.18 | 58.17 | 58.32 | 58.15 | 61.65 | 61.10 | 61.86 |
| 2031 | 61.14                                    | 62.18 | 64.55 | 59.81 | 46.80 | 56.88 | 59.41 | 59.55 | 58.19 | 62.65 | 62.50 | 61.84 |
| 2032 | 62.14                                    | 63.20 | 65.61 | 60.79 | 47.56 | 57.82 | 60.39 | 60.53 | 59.15 | 63.68 | 63.53 | 62.85 |
| 2033 | 63.53                                    | 64.61 | 67.07 | 62.15 | 48.63 | 59.11 | 61.74 | 61.88 | 60.47 | 65.10 | 64.95 | 64.26 |
| 2034 | 64.75                                    | 65.85 | 68.36 | 63.34 | 49.56 | 60.24 | 62.92 | 63.07 | 61.63 | 66.35 | 66.19 | 65.49 |
| 2035 | 66.00                                    | 67.13 | 69.68 | 64.57 | 50.52 | 61.41 | 64.14 | 64.29 | 62.82 | 67.64 | 67.48 | 66.76 |
| 2036 | 67.07                                    | 68.22 | 70.82 | 65.62 | 51.34 | 62.40 | 65.18 | 65.34 | 63.84 | 68.74 | 68.57 | 67.84 |
| 2037 | 68.57                                    | 69.74 | 72.39 | 67.08 | 52.48 | 63.80 | 66.63 | 66.79 | 65.27 | 70.27 | 70.10 | 69.36 |
| 2038 | 69.89                                    | 71.09 | 73.79 | 68.38 | 53.50 | 65.03 | 67.92 | 68.08 | 66.53 | 71.63 | 71.45 | 70.70 |
| 2039 | 71.24                                    | 72.46 | 75.22 | 69.70 | 54.53 | 66.29 | 69.24 | 69.40 | 67.81 | 73.01 | 72.84 | 72.06 |
| 2040 | 72.40                                    | 73.64 | 76.44 | 70.83 | 55.41 | 67.36 | 70.36 | 70.53 | 68.91 | 74.19 | 74.02 | 73.23 |
| 2041 | 74.02                                    | 75.29 | 78.15 | 72.42 | 56.66 | 68.87 | 71.94 | 72.11 | 70.46 | 75.86 | 75.68 | 74.87 |

|      | TABLE 6a                                  |        |        |          |        |        |        |        |        |        |        |        |
|------|---|--------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--------|
|      | Renewable Avoided Costs                   |        |        |          |        |        |        |        |        |        |        |        |
|      | Renewable Fixed Price Option for Solar QF |        |        |          |        |        |        |        |        |        |        |        |
|      | On-Peak Forecast (\$/MWH)                 |        |        |          |        |        |        |        |        |        |        |        |
|      | l   | E . I. |        | <b>A</b> |        |        | 1.1    | A      | 0      | 0.1    | News   | Dee    |
| 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  |
| 2032 | 88.01                                     | 87.56  | 86.11  | 89.10    | 98.54  | 92.45  | 89.27  | 90.11  | 90.30  | 86.90  | 87.88  | 87.49  |
| 2033 | 89.95                                     | 89.49  | 88.01  | 91.06    | 100.71 | 94.49  | 91.24  | 92.10  | 92.29  | 88.81  | 89.82  | 89.42  |
| 2034 | 91.68                                     | 91.22  | 89.70  | 92.82    | 102.65 | 96.31  | 93.00  | 93.87  | 94.07  | 90.52  | 91.55  | 91.14  |
| 2035 | 93.45                                     | 92.98  | 91.44  | 94.61    | 104.63 | 98.17  | 94.80  | 95.69  | 95.89  | 92.27  | 93.32  | 92.91  |
| 2036 | 95.00                                     | 94.52  | 92.95  | 96.18    | 106.36 | 99.79  | 96.36  | 97.27  | 97.48  | 93.80  | 94.86  | 94.44  |
| 2037 | 97.10                                     | 96.61  | 95.00  | 98.30    | 108.71 | 102.00 | 98.49  | 99.42  | 99.63  | 95.87  | 96.96  | 96.53  |
| 2038 | 98.97                                     | 98.47  | 96.84  | 100.20   | 110.81 | 103.97 | 100.39 | 101.34 | 101.55 | 97.72  | 98.83  | 98.39  |
| 2039 | 100.88                                    | 100.37 | 98.71  | 102.13   | 112.95 | 105.97 | 102.33 | 103.29 | 103.51 | 99.60  | 100.74 | 100.29 |
| 2040 | 102.54                                    | 102.02 | 100.33 | 103.82   | 114.81 | 107.72 | 104.02 | 105.00 | 105.22 | 101.25 | 102.40 | 101.94 |
| 2041 | 104.81                                    | 104.28 | 102.55 | 106.11   | 117.35 | 110.10 | 106.32 | 107.32 | 107.55 | 103.49 | 104.66 | 104.20 |

|      | TABLE 6b                                  |       |       |       |       |       |       |       |       |            |       |       |
|------|---|-------|-------|-------|-------|-------|-------|-------|-------|------------|-------|-------|
|      | Renewable Avoided Costs                   |       |       |       |       |       |       |       |       |            |       |       |
|      | Renewable Fixed Price Option for Solar QF |       |       |       |       |       |       |       |       |            |       |       |
|      | Off-Peak Forecast (\$/MWH)                |       |       |       |       |       |       |       |       |            |       |       |
|      |   |       |       |       |       |       |       | -     | -     | <b>0</b> ( |       |       |
| Year | Jan                                       | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct        | Nov   | Dec   |
| 2017 | 25.07                                     | 26.91 | 24.49 | 15.91 | 12.17 | 10.50 | 17.91 | 24.41 | 24.31 | 22.38      | 24.83 | 26.92 |
| 2018 | 25.65                                     | 27.53 | 25.06 | 16.30 | 12.48 | 10.78 | 18.34 | 24.98 | 24.88 | 22.91      | 25.41 | 27.54 |
| 2019 | 28.18                                     | 30.25 | 27.52 | 17.84 | 13.62 | 11.73 | 20.10 | 27.43 | 27.32 | 25.14      | 27.91 | 30.27 |
| 2020 | 55.06                                     | 55.29 | 56.65 | 55.55 | 52.58 | 52.78 | 53.04 | 54.06 | 54.85 | 55.93      | 55.76 | 56.14 |
| 2021 | 56.97                                     | 56.29 | 57.78 | 56.57 | 54.03 | 54.07 | 54.64 | 54.94 | 55.96 | 57.75      | 55.61 | 57.11 |
| 2022 | 57.78                                     | 57.49 | 59.46 | 57.46 | 54.79 | 55.12 | 56.44 | 55.58 | 57.03 | 58.82      | 56.52 | 58.16 |
| 2023 | 58.53                                     | 58.57 | 60.63 | 59.03 | 55.13 | 56.16 | 57.38 | 56.90 | 58.03 | 60.02      | 57.37 | 59.34 |
| 2024 | 59.00                                     | 59.06 | 61.83 | 58.87 | 55.44 | 57.84 | 56.81 | 57.13 | 58.45 | 60.26      | 59.15 | 59.71 |
| 2025 | 60.20                                     | 60.19 | 63.12 | 59.74 | 55.43 | 58.15 | 58.02 | 58.89 | 58.99 | 61.58      | 61.14 | 60.59 |
| 2026 | 60.49                                     | 61.29 | 63.41 | 60.15 | 56.02 | 58.98 | 58.83 | 59.45 | 58.83 | 62.40      | 61.28 | 61.32 |
| 2027 | 62.57                                     | 62.55 | 64.16 | 61.72 | 55.88 | 60.06 | 60.36 | 59.81 | 60.16 | 64.24      | 62.01 | 62.45 |
| 2028 | 63.42                                     | 63.96 | 66.16 | 63.26 | 55.35 | 61.40 | 61.55 | 60.38 | 61.59 | 64.74      | 62.71 | 64.41 |
| 2029 | 63.86                                     | 64.58 | 67.38 | 64.49 | 51.11 | 61.67 | 62.62 | 61.41 | 62.76 | 65.44      | 64.59 | 65.53 |
| 2030 | 64.85                                     | 65.65 | 68.76 | 64.61 | 50.89 | 62.20 | 63.19 | 63.34 | 63.17 | 66.67      | 66.12 | 66.88 |
| 2031 | 66.26                                     | 67.30 | 69.67 | 64.93 | 51.92 | 62.00 | 64.53 | 64.67 | 63.31 | 67.77      | 67.62 | 66.96 |
| 2032 | 67.35                                     | 68.41 | 70.82 | 66.00 | 52.77 | 63.03 | 65.60 | 65.74 | 64.36 | 68.89      | 68.74 | 68.06 |
| 2033 | 68.84                                     | 69.92 | 72.38 | 67.46 | 53.94 | 64.42 | 67.05 | 67.19 | 65.78 | 70.41      | 70.26 | 69.57 |
| 2034 | 70.17                                     | 71.27 | 73.78 | 68.76 | 54.98 | 65.66 | 68.34 | 68.49 | 67.05 | 71.77      | 71.61 | 70.91 |
| 2035 | 71.52                                     | 72.65 | 75.20 | 70.09 | 56.04 | 66.93 | 69.66 | 69.81 | 68.34 | 73.16      | 73.00 | 72.28 |
| 2036 | 72.70                                     | 73.85 | 76.45 | 71.25 | 56.97 | 68.03 | 70.81 | 70.97 | 69.47 | 74.37      | 74.20 | 73.47 |
| 2037 | 74.31                                     | 75.48 | 78.13 | 72.82 | 58.22 | 69.54 | 72.37 | 72.53 | 71.01 | 76.01      | 75.84 | 75.10 |
| 2038 | 75.74                                     | 76.94 | 79.64 | 74.23 | 59.35 | 70.88 | 73.77 | 73.93 | 72.38 | 77.48      | 77.30 | 76.55 |
| 2039 | 77.20                                     | 78.42 | 81.18 | 75.66 | 60.49 | 72.25 | 75.20 | 75.36 | 73.77 | 78.97      | 78.80 | 78.02 |
| 2040 | 78.48                                     | 79.72 | 82.52 | 76.91 | 61.49 | 73.44 | 76.44 | 76.61 | 74.99 | 80.27      | 80.10 | 79.31 |
| 2041 | 80.21                                     | 81.48 | 84.34 | 78.61 | 62.85 | 75.06 | 78.13 | 78.30 | 76.65 | 82.05      | 81.87 | 81.06 |

# WIND INTEGRATION

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

#### 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 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.

Attachment K

# Falls Creek Hydro Project, L.P.

September 1, 2017

Chair Lisa Hardie Commissioner Stephen Bloom Commissioner Megan Decker Public Utility Commission of Oregon PO Box 1088 Salem, OR 97308-1088

#### Via email

- RE: Falls Creek Hydro, Limited Partnership vs. Portland General Electric Docket No. UM 1728
- Dear Chair Hardie, Commissioner Bloom, and Commissioner Decker:

Thank you for allowing me to introduce myself and the Falls Creek Hydroelectric project ("Falls Creek Hydro") and present information on why the Public Utility Commission of Oregon ("Commission") should reject Portland General Electric Company's ("PGE") proposal to reduce avoided cost rates retroactive to August 8, 2017. We expected rates to change in October or November, and with that end date in mind, Falls Creek Hydro started the power purchase agreement process back on June 6, 2017 with the intention of obtaining a contract before rates changed following acknowledgement of PGE's integrated resource plan. We would have started sooner if we had been aware that PGE's rates could change in August or September.

Falls Creek Hydro is an existing hydroelectric project which should have been able to complete its contracting process without difficulty. PGE systematically delayed and violated the Commission approved contract process in an effort to deny me a contract. Despite these efforts, according to PGE's own process, an executable contract was due to me on August 25, but PGE has refused to execute a contract due to its request for a rate decrease on August 8.<sup>1</sup> Essentially, PGE is waiting to see what action the Commission will take before executing my contract. I request that the Commission not approve any new rates until after PGE commits to execute contracts with projects like mine, and no later than September 18.

#### Introduction

My name is Gary Marcus and I live in Eugene, Oregon. I graduated from the University of Oregon Law School in 1980, and received an MS in Interdisciplinary Studies of History, Economic and Political Science in 1977. I received a BA from the Evergreen State College in

<sup>&</sup>lt;sup>1</sup> Falls Creek Hydro believes that an executable PPA should have been provided no later than July 20, 2017.

Olympia, Washington in 1975. I am a member of the Oregon State Bar but do not currently practice law.

I am the owner of Falls Creek Hydro in Linn County, Oregon. Falls Creek Hydro is an awardwinning facility that has been generating electricity for 33-years, with a 99% availability factor. Falls Creek began commercial operation in 1984 and is a 4.1megawatt ("MW") nameplate facility with installed capacity of 4.9 MW.

On June 6, 2017, I submitted an application to PGE, to sell the power, capacity, and environmental attributes of Falls Creek under a 15-year standard contract beginning on January 1, 2020.

PGE is required under various PURPA laws and regulations to purchase the output of my facility, and the Schedule 201 process should facilitate that purchase. Falls Creek is precisely the kind of facility that PGE should be proud to purchase from. The contract negotiations should have proceeded quickly and smoothly, since Falls Creek Hydro is up and running, and was ready, willing and able to sign a PPA with PGE the day it filed its application.

Unfortunately, PGE has not negotiated with Falls Creek Hydro in good faith. PGE's actions over the past 3 months suggest that PGE planned to delay the signing of a contract with Falls Creek Hydro until it could lower its avoided cost rates. PGE knew that lower rates would drive Falls Creek out of business, because I told PGE early on in our negotiations that Falls Creek could not operate under rates any lower than those in effect in June, 2017. By delaying my negotiations, I believe PGE was intentionally trying to put Falls Creek Hydro out of business.

Portland General Electric used the following tactics to deceive, delay and defraud Falls Creek.

- Abused the Schedule 201 processes by failing to read material Falls Creek sent to PGE, and then using false, incorrect or fabricated information when responding to Falls Creek Hydro.
- Intentionally made false statements about the law, claiming that Falls Creek had to have a point of delivery settled before PGE could even offer Falls Creek a PPA.
- Failed to respond to Falls Creeks' emails seeking a more open process and transparency from PGE.
- Promised on August 3<sup>rd</sup> that it would offer Falls Creek an executable contract under then existing QF prices by August 25<sup>th</sup>, and then requesting the Commission lower its avoided cost prices on August 4<sup>th</sup>, without prior notice to Falls Creek.

• Refusing to live up to its promise to provide an executable contract.

Falls Creek Hydro has separately filed a complaint that requests that the Commission order PGE to provide Falls Creek Hydro with a PPA with standard avoided cost prices in effect on July 20, 2017, when PGE should have presented Falls Creek with an executable contract. In this proceeding, Falls Creek Hydro requests that the Commission deny PGE's efforts to obtain an early price change, and ensure that projects like mine that should have received executable contracts before the price change will actually get executable contracts.

#### History and Value of Falls Creek

Since the 1970s I have been concerned about environmental degradation and have devoted much of my life to implementing practical solutions that would create a sustainable world while at the same time promoting economic growth. In 1977, I was the Legislative Assistant to then Oregon State Senator George Wingard. My job was to help Senator Wingard pass his bills. Among the 16 bills that Senator Wingard passed that session were those that required wall and ceiling insulation in the construction of all new residential and commercial buildings. Until then there were no insulation requirements for Oregon buildings. That legislation was bitterly opposed by the housing industry and the construction trades who objected to higher short-term costs. Fortunately, those bills passed and for the past 40 years contractors have built more energy efficient buildings in Oregon. As a result, enough energy has been conserved so that Oregon utilities could avoid building at least another 1,000 megawatts of additional generation.

I mention this because it demonstrates that the implementation of environmentally progressive legislation is frequently opposed by entrenched economic interests. But in the long run that environmental legislation pays for itself. In the case of Falls Creek vs. PGE, Falls Creek represent a proven resource that meets the Oregon policy of distributed generation. One of the purposes of distributed generation is to strengthen the electrical infrastructure in rural areas near load. Falls Creek is located in rural western Oregon where energy would otherwise be imported. So Falls Creek not only generates clean power, but strengthens rural electric infrastructure and conserves energy by reducing the line loses of imported power. If PGE wins its appeal before the PUC, then Falls Creek will shut down and the benefits that Falls Creek provides through distributed generation will vanish.

# Falls Creek Provides Multiple Benefits to Rural Linn County

Since 1984 Falls Creek has paid over \$1.2 million in property taxes to Linn County serving the school, roads, fire and police protection of this rural section of Oregon. The staff at Falls Creek conducts annual tour of the project to area elementary school students, and has exposed an entire

generation of students to the benefits of renewable energy and the physics involved in its production. We also give tours to OSU engineering students, many from foreign countries.

In addition, Falls Creek paid for the upgrade (or reconductoring) of 20 miles of electric distribution line along a rural section of highway 20 east of Sweet Home. That upgrade enabled a local lumber company to restart a small lumber mill and operate it for about 10 years. The three-phase distribution line is inherently more robust than a single-phase line and has improved electrical distribution service to all of the residents and commercial interests along those lines. Falls Creek pays for the continuing maintenance of those lines. If Falls Creek went out of business, there is a good chance those 20 miles of three-phase distributions will devolve back into a single-phase line.

Falls Creek assists the Forest Service. Falls Creek is located Forest Service land and pays portions of Forest Service road maintenance, this reduces public costs of maintaining those roads. In addition, the Falls built a pond to pool water and divert it into its penstock. That pond creates fish and riparian habitat and also acts as a source of water in the mountains where helicopters during fire season can dip their buckets and drop the water on fires.

In short, even though Falls Creek is a small company we are an integral part of Sweet Home and the rural community east of Sweet Home. If Falls Creek went out of business 20 miles of rural electric distribution system could devolve, there would be no more elementary school and engineering school field trips to the site, Linn County and its schools, roads, police and fire services would lose property tax money, the Forest Service would lose a maintenance partner. Most importantly, Oregon would lose an average of 15,500 megawatts hours a year from a plant that could last another 60 years, since Falls Creek was built to last 100 years in 1984 and is impeccably maintained.

# Hydropower is More Predicable than Wind or Solar

Unlike wind and solar resources, Falls Creek is a hydroelectric power resource and as such produces continuous power from roughly November 1<sup>st</sup> to July 1<sup>st</sup> each year. This kind of power does not require peaking power back-up that more variable forms of generation such as wind and solar require. In addition, Falls Creek is already built and proven, whereas the other projects that PGE is trying to limit are greenfield projects which still face permitting and construction risk. This translates into planning risks for PGE. Falls Creek does not have those planning risks.

# PGE's Illegal Actions

When Falls Creek sent in its application to PGE on June 6<sup>th</sup>, it expected that PGE would be firm in its negotiations, but it also expected PGE to act honorably. From the beginning PGE seemed

not to care about Falls Creek, or even to read its submittals. PGE's first form letter back to Falls Creek set this pattern. First, PGE stated that Falls Creek was a 10 MW system, even though the Falls Creek Hydro has a 4.1 MW nameplate capacity, suggesting that PGE had not read even the first page of Falls Creek's submittal. Second, PGE stated it received the Falls Creek submittal on June 9, when Federal Express documents proved PGE receive it on June 6. This was PGE's first attempt at delay.

This pattern continued. On June 12, PGE requested that Falls Creek Hydro reformat its information. On June 26, PGE stated that it would not send a draft PPA until Falls Creek Hydro selected an acceptable point of delivery, which requires Falls Creek to pay additional transmission charges. After multiple unnecessary submissions (i.e. not required by Schedule 201) and repeated requests from Falls Creek Hydro, PGE finally sent the first draft PPA on July 7.

The draft PPA provided by PGE, on July 7, contained two mistakes that did not match the information submitted by Falls Creek Hydro. First, PGE stated that the project was in Lane County even though both of the project's address in Cascadia, Oregon and its geographic coordinates are in Linn County. Second, PGE stated that the project has a nameplate 4.9 MW capacity instead of 4.1 WM. Falls Creek Hydro has a maximum installed capacity of 4.9 MW, but its nameplate capacity, which is what PGE requested, is 4.1 MW. These mistakes caused additional delay in the negotiations with Falls Creek Hydro.

Schedule 201 allows a QF to move directly from draft to executable PPA, but PGE has insisted upon providing unnecessary versions, which has added additional 15 business day periods.

The final draft PPA provided by PGE, on August 3, contained PGE's standard language and indicated that in 15 business days, PGE would send an executable contract, and that once Falls Creek Hydro would get the avoided cost prices in effect when it signed its executable draft.

On August 4, only one day later, PGE requested lower prices from the Commission. When Falls Creek became aware of PGE's filing, it executed the final draft PPA, recommitted itself to PGE, and filed its complaint on August 7.

On August 25, PGE informed Falls Creek Hydro that it was "committed" to entering into a PPA with Falls Creek Hydro, however, there are two pending proceedings before the Commission which will determine the applicable rates and process to use in the final executable PPA between PGE and Falls Creek Hydro.

# Conclusion

This is really a story of a small company, Falls Creek Hydro, who follows the rules, against a big company, PGE, who doesn't follow the rules. For 33 years Falls Creek has been an award-

winning generator of clean energy. Falls Creek has been a good neighbor and small, important part of Linn County. We have improved the electric infrastructure, contributed to property taxes, educated its children, and helped the local forest service. As a business, Falls Creek Hydro reflects the values of its owner and its employees: honest people who work with others in our community. We do not have deep pockets and cannot pay for a prolonged and extensive litigation.

On the other hand, PGE, which is one of the largest utilities in Oregon, has published prices and procedures but has chosen not to follow them. Falls Creek has attempted to negotiate in good faith whereas PGE acted in bad faith and never intended to sign a contract with Falls Creek Hydro, even knowing that Falls Creek would go out of business with PGE's lower prices.

Falls Creek therefore requests the Commission require PGE to follow its Schedule 201 process, and sign a PPA with Falls Creek Hydro with avoided cost prices in effect on July 20 when PGE should have presented Falls Creek with an executable contract.

Falls Creek is concerned that PGE is attempting to manipulate the Commission processes to avoid its PURPA obligations. The Commission should insist that PGE maintain ethical negotiations with QFs throughout the Commission processes, and confirm that PGE's attempt to deceive and defraud companies like Falls Creek will not be tolerated by the Commission.

Thank you for considering this request.

Sincerely

Gary P. Marcus President, Frontier Technology, Inc., General Partner Falls Creek H.P., Limited Partnership