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

THIS AGREEMENT, entered into this 21st day, 6/2016 2016, is between Energy Partners II, LLC ("Seller") and Portland General Electric Company ("PGE") (hereinafter each a "Party" or collectively, "Parties").

## RECITALS

Seller intends to construct, own, operate and maintain a biomass cogeneration facility for the generation of electric power located in Lake County, Oregon at W 123.833 and 45.450 N with a Nameplate Capacity Rating of 10,000 kilowatt ("kW"), as further described in Exhibit B ("Facility"); and

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

Seller shall sell and PGE shall purchase the entire Net Output, as such term is defined in Section 1.19, 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 off-peak 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 Tillamook People's Utility District 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 Price for On-Peak 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) 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: https://www.theice.com/products/OTC/Physical-Energy/Electricity. In the event ICE no longer publishes this index, PGE and the Seller agree to select an alternative successor index representative of the Mid-C trading hub.

1.16. "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.

<u>SECTION 2: TERM; COMMERCIAL OPERATION DATE</u>

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 April 1, 2019 Seller shall begin initial deliveries of Net Output; and

2.2.2. By June 1, 2019 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 May 31, 2034, 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 liability company duly organized under the laws of the state 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 9,200 kW.

3.1.9. Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is 74,393,000 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 87,600,000 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 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 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 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.

4.6. During the Renewable Resource Deficiency Period, Seller shall provide and PGE shall acquire the RPS Attributes for the Contract Years as specified in the Schedule and Seller shall retain ownership of all other Environmental Attributes (if any). During the Renewable Resource Sufficiency Period, and any period within the Term of this Agreement after completion of the first fifteen (15) years after the Commercial Operation Date, Seller shall retain all Environmental Attributes in accordance with the Schedule. The Contract Price includes full payment for the Net Output and any RPS Attributes transferred to PGE under this Agreement. With respect to Environmental Attributes not transferred to PGE under this Agreement ("Seller-Retained Environmental Attributes") Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Seller-Retained Environmental Attributes, and PGE shall not report under such program that such Seller-Retained Environmental Attributes belong to it. With respect to RPS Attributes transferred to PGE under this Agreement ("Transferred RECs"), PGE may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to it any of the Transferred RECs, and Seller shall not report under such program that such Transferred RECs belong to it.

## SECTION 5: OPERATION AND CONTROL

5.1. Seller shall operate and maintain the Facility in a safe manner in accordance with the Generation Interconnection Agreement, and Prudent Electrical Practices. PGE shall have no obligation to purchase Net Output from the Facility to the extent the interconnection of the Facility 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 re-commence 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: | Energy Partners II, LLC<br>Attn: Jason B. Joner<br>2525 West Firestone Lane<br>Vancouver, Washington 98660 |
| with a copy to: | Kenneth E. Kaufmann<br>Attorney at Law<br>1785 Willamette Falls Drive, Suite 5<br>West Linn, Oregon 97068 |
| 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.

/ / /

/ / /

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: **Maria M. Pope**
Title: SRVP Power Supply &
Date: Operations & Resource Strategy
June 21, 2016

| PGE Approved By: | |
|---|---|
| Business Terms | |
| Credit | |
| Legal | |
| Risk Mgt. | JB |

ENERGY PARTNERS II, LLC

By: _______________
Name: JASON B. JONER
Title: MANAGER
Date: JUNE 21, 2016

# 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.

# EXHIBIT B
# DESCRIPTION OF SELLER'S FACILITY

A biomass cogeneration system consisting of a Wellons 125,000 pounds per hour (PPH) wood-fired boiler that will provide steam to a Siemens extraction-condensing turbine-generator with a nominal rating of 10,000 kW. Two feedwater pumps are provided, one for standby. Steam will be extracted for lumber drying, with condensate return to the system. GPS coordinates: 120.356 W, 42.204 N.

# Exhibit B

## LEASE OPTION AGREEMENT

This LEASE OPTION AGREEMENT (this **"Option Agreement"**) is made and entered into effective as of April 29, 2016 (the **"Effective Date"**), and is made by and between COLLINS PINE COMPANY, an Oregon corporation (**"Grantor"**), and ENERGY PARTNERS II, LLC, an Oregon limited liability company (**"Grantee"**). Grantor and Grantee are sometimes individually referred to herein as a **"Party"** and collectively as **"Parties"**.

## RECITALS

WHEREAS, Grantor is the owner of certain real property upon which it operates a sawmill in Lake County, Oregon, and commonly known 1600 Missouri Avenue, Lakeview, Oregon 97630 (the **"Property"**).

WHEREAS, Grantee desires to develop, install and operate an approximately 10 megawatt biomass cogeneration facility on a portion of the Property.

WHEREAS, Grantor desires to grant to Grantee the option to lease a portion of the Property upon the terms and conditions set forth in this Agreement for Grantee's use as a biomass cogeneration facility.

NOW, THEREFORE, in consideration of the foregoing premises and other good and valuable consideration, the receipt and adequacy of which is acknowledged, the Parties agree as follows:

## AGREEMENT

**1. Grant of Option.** Grantor grants to Grantee an option (the **"Option"**) to lease the real property described in **Exhibit A** attached hereto, or similar real property of Grantor's Property by mutual agreement of the Parties, consisting of approximately 52,260 square feet, more or less (the **"Option Land"**).

**2. Option Term.** The term of Option shall run from the Effective Date and shall end on April 29, 2018 (the **"Option Term"**), or until otherwise terminated as set forth in this Option Agreement.

**3. Exercise of Option.** Grantee may, at any time within the Option Term, exercise this Option by giving Grantor sixty (60) days advance written notice of its intent to lease the Option Land. Such notice shall include a proposed lease agreement for the Option Land (the **"Lease Agreement"**). Within the sixty (60) day notice period, Grantor and Grantee will make good faith efforts to negotiate the terms and conditions of the Lease Agreement acceptable to the Parties in each of their sole and absolute discretion.

**4. Termination.** Either Party may terminate this Option Agreement at any time by providing the other Party with thirty (30) days' advance written notice. In the event that this Option Agreement is terminated for any reason, or if the Parties are unable to successfully negotiate the Lease Agreement for any reason, no Party shall be liable to the other Party for any damages or liability, consequential or otherwise, arising out of the termination of this Option Agreement.

**5. Effect of Option.** This Option Agreement is an agreement to enter into a lease, and not a covenant that runs with the land. This Option Agreement does not grant any right to Grantee to enter upon or use the Option Land, or any other rights to Grantee not expressly set forth in this Option Agreement. Grantee shall not record or cause this Option Agreement or a memorandum of this option to be recorded against the Option Land.

**6. Assignability.** This Option Agreement is not assignable by either Party.

**7. Notices.** All notices under this Option Agreement shall be in writing and delivered by overnight mail from a national carrier and delivered as follows:

| *If to Grantor:* | *If to Grantee:* |
|---|---|
| Collins Pine Company<br>Attn: Eric Schooler<br>29100 SW Town Center Loop<br>Suite 300<br>Wilsonville, Oregon 97070 | Energy Partners II, LLC<br>Attn: Jason B. Joner<br>c/o Wellons Group, Inc.<br>2525 West Firestone Lane<br>Vancouver, Washington 98660 |

**8. Dispute Resolution; Governing Law; Venue.** This Option Agreement shall be governed by the laws of the State of Oregon, without regard to conflict of law provisions. The Parties consent to venue and jurisdiction in the state courts for the State of Oregon.

IN WITNESS WHEREOF, the Parties have executed this Option Agreement effective as of the Effective Date.

| **GRANTOR:** | **GRANTEE:** |
|---|---|
| COLLINS PINE COMPANY, an Oregon corporation | ENERGY PARTNERS II, LLC, an Oregon limited liability company |
| By: Eric Schooler | By: Jason B Joner |
| Name: Eric Schooler | Name: Jason B. Joner |
| Title: President & CEO | Title: Manager |


WELLONS

POWERPLANT LOCATION

COLLINS PINE

ENERGY PARTNERS II LLC — 3 B

8500 51119519-01 0

WELLONS

2525 WEST FIRESTONE LANE
VANCOUVER, WASHINGTON 98660

(360) 750-3500
FAX (360) 750-3400

www.Wellons.com
Sales@Wellons.com

Kenneth T. Kinsley, P.E.

**Subject:** Preliminary Generator Technical Data
**File:** Energy Partners II, LLC
**To:** Jason B. Joner
**Date:** June 20, 2016

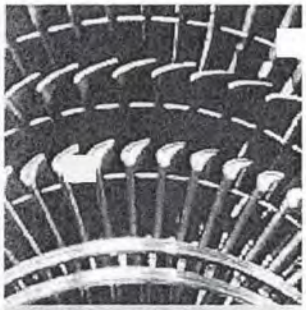
As requested, below is the preliminary generator technical data for Energy Partners II as requested in order to provide PGE. Please let me know if you have any further questions or require additional information.

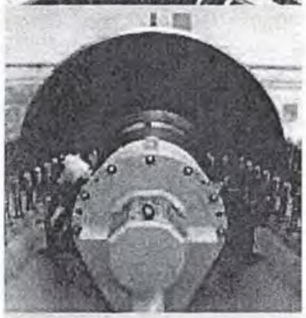
***GENERATOR DESCRIPTION***

- VOLTAGE = 13,800V
- FREQUENCY = 60HZ
- POWER FACTOR = 0.85
- SPEED = 1800 RPM
- OUTPUT = 10,000KVA
- EXCITATION = Brushless w/ automatic voltage regulator & pilot exciter
- COOLING = TEWAC (totally enclosed water to air cooled)
- GENERATOR COOLING WATER TEMPERATURE FOR RATED OUTPUT = 33 Deg C (91 Deg F).
- AMBIENT TEMPERATURE FOR GENERATOR RATING = 50 Deg C (122 Deg F)
- GENERATOR INSULATION CLASS = 155 Deg F.

***ADDITIONAL INFORMATION***

- STATION POWER: Considering the equipment scope involved, station load has been estimated at 750KW
- TRANSFORMER LOSSES: transformer losses in the main step-up transformer have been estimated at 50KW

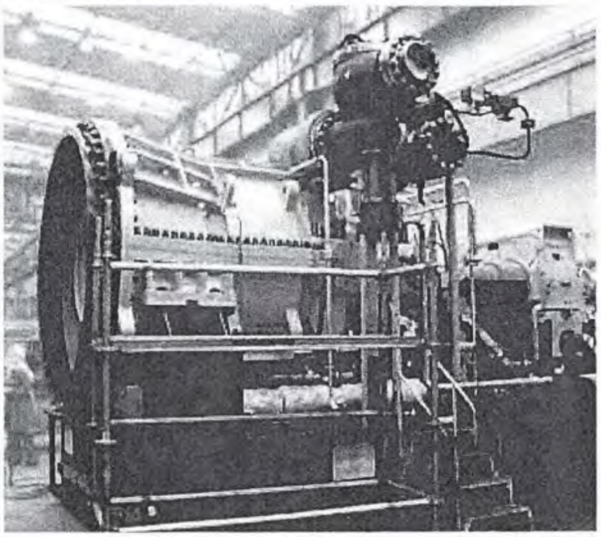




# SST-300 Industrial Steam Turbines

## Up to 50 MW

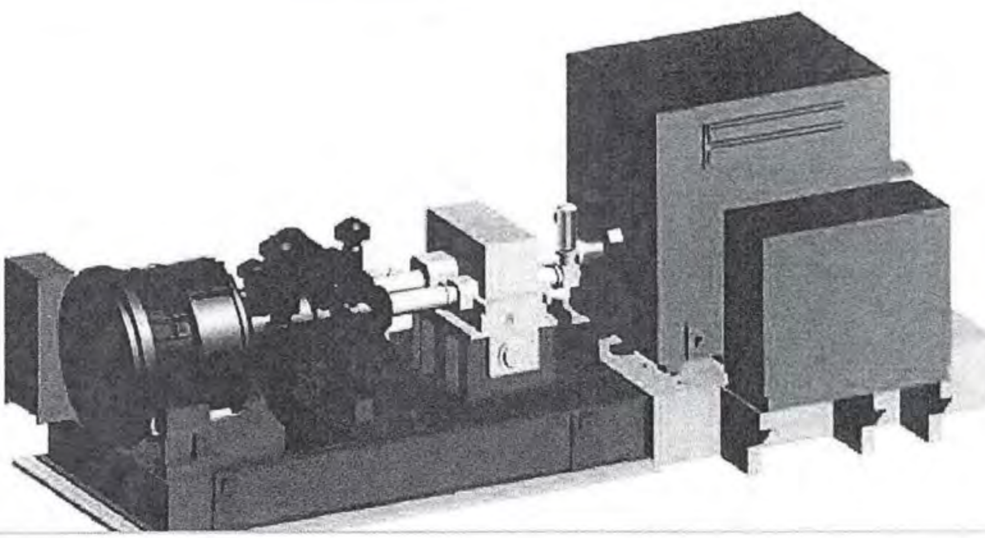
**The SST-300 is a single-casing steam turbine, providing geared drive to a 1,500 or 1,800 rpm generator. It has a compact and flexible design with a high degree of standardization.**



The SST-300 generator drive is used in the following processes and applications:

- Steam turbine plants and combined-cycle power plants
- Cogeneration and district heating
- Waste incinerators, waste-fired power plants and biomass plants
- Plants using the waste heat from chemical processes for power generation

In residential, commercial, municipal and industrial power generation, e.g. captive power plants for the chemical and petrochemical industry, for refineries, pulp and paper mills, steelworks and mines, sugar industry, textile industry and others. In special cases, it can also be used as a mechanical drive.



**Industrial Steam Turbines**

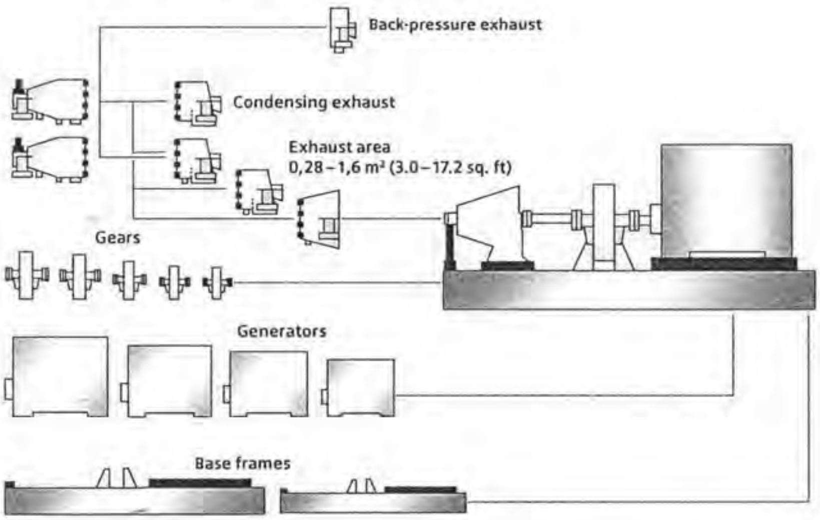
Answers for energy.

SIEMENS

## Design features

**The SST-300 is a standardized single-casing geared steam turbine with customized reaction blading. It is used for both condensing and back-pressure applications with internally controlled extraction and scope for multiple bleeds. The modular package design with pre-engineered turbine modules and modular peripherals allows a wide variety of configurations to satisfy individual needs with maximum economy.**

### Modular package concept for the SST-300




**Standard modules:**
- Turbine casing
- Exhaust
- Gearbox
- Generator
- Base frame

**Customized modules:**
- Steam path (reaction blading)

**Optional:**
- Skid package with separate oil tank
- Double extraction

**Turbine casing:**
The single-body turbine with horizontal split has nearly symmetrical casing, which allows short start-up times and quick load changes. The design of all supports for labyrinths and blade carriers allows steam path flexibility and adjustment to individual steam parameters. Internal valve arrangements or adaptive stages control the steam flow to the back end of the turbine and are used to maintain constant process-steam extraction pressures over a wide flow range. The utilization of selected proven components assures high reliability and easy maintenance.

**Rotor and blading:**
The SST-300 rotor is fitted with resonance-proof blading. The blading design guarantees high efficiency over the whole operation range, including rapid changes of load for smooth plant operation. The reliability of the blading is achieved primarily through a low total stress load on the blades.

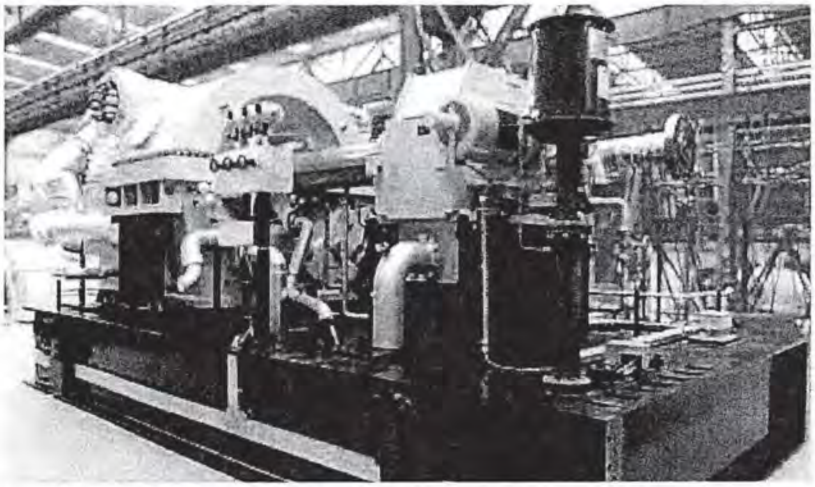
**Gearbox:**
The reduction gears are taken from the existing range of world-class gear manufacturers and have proven high reliability and performance.

**Base frame:**
SST-300 turbines are delivered as packaged units. The components of the turboset are installed on a common base frame, including the complete oil system. The oil tank is inside the base frame. All instrumentation is pre-wired to junction boxes located at the front of the frame. The number of external connections is reduced to the minimum; all connections (piping, wiring, etc.) are clearly defined.

The SST-300 base-frame packaged unit can either be placed on a simple ground-level concrete block foundation or on an elevated foundation. It can be placed on an existing foundation or be elevated on simple concrete or steel columns on spring packages (a concrete foundation upper desk is not required if the base frame is placed on springs).

**Exhaust:**
The SST-300 range can be equipped with upward, downward or axial exhaust orientation to fit in with the selected installation arrangement.

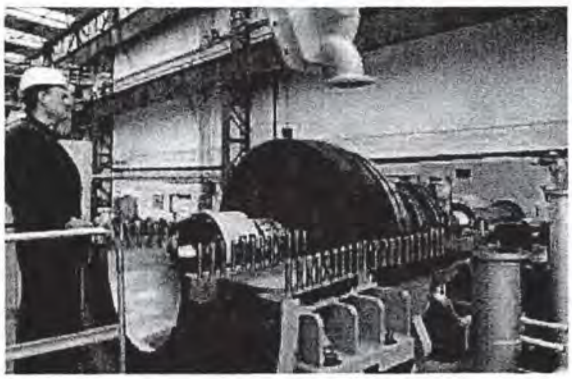
## Technical data



### Technical data

- Power output up to 50 MW
- Speed up to 12,000 rpm
- Live steam conditions
  Pressure up to 120 bar / 1,740 psi
  Temperature up to 520 °C / 968 °F
- Bleed: Pressure up to 60 bar / 870 psi
- Controlled extraction (single or double)
  Pressure up to 45 bar / 655 psi
  Temperature up to 400 °C / 750 °F
- Exhaust steam pressure
  Back pressure up to 16 bar / 232 psi
  District heating up to 3 bar / 43 psi
  Condensing up to 0.3 bar / 4.4 psi

(All data are approximate and project-related.)



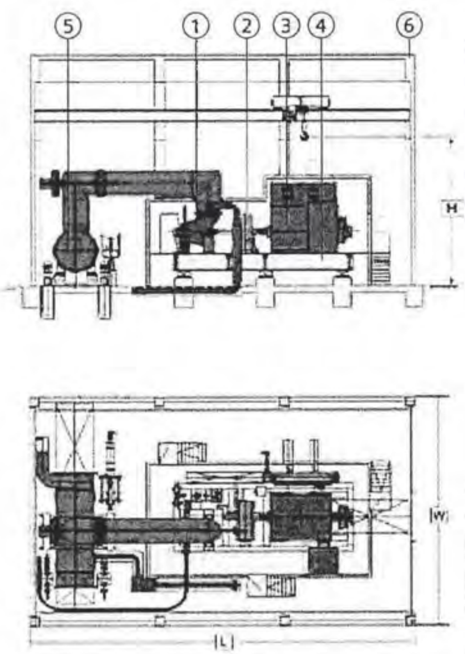
### Design features

- Back pressure / condensing type
- Compact package unit design for minimal space requirements
- Modular design, extensive pre-design
- Customized steam path
- Proven, thermoflexible design

### Benefits

- Fast and early layout planning
- Easy access to mechanical components facilitates maintenance
- Remote control for simple operation
- High reliability and availability
- High efficiency
- Low civil cost

## Modular layout and compact design

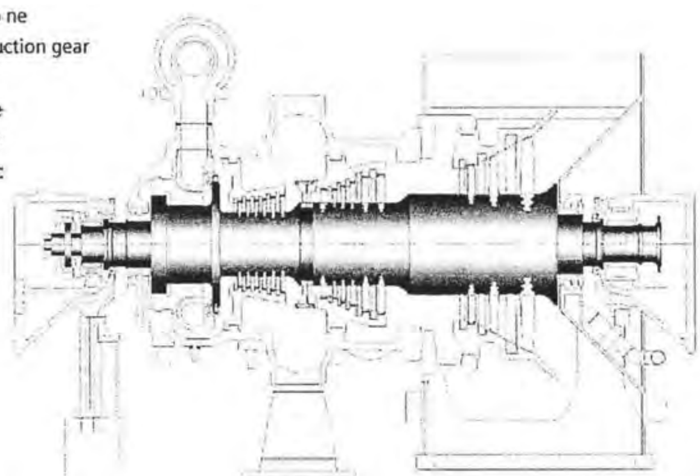



1. Steam turbine
2. Speed reduction gear
3. Generator
4. Base frame
5. Condenser
6. Noise hood

Typical dimensions

- L Length 21 m / 69 ft
- W Width 11.5 m / 38 ft
- H Height 7.5 m / 24 ft

*Typical plant layout for turboset with an SST-300 steam turbine*



*Cross-sectional view of an SST-300 steam turbine*

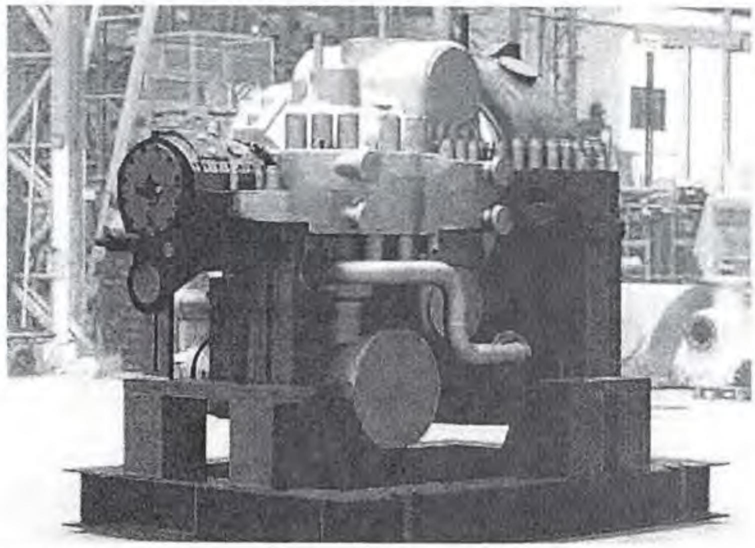
## Installation and maintenance

**Our proven installation and maintenance concept lowers maintenance cost by enabling easy access to the installed components – the turbine, gearbox, generator and auxiliaries.**

As all SST-300 turbines are prepared for remote monitoring, Siemens offers service contracts for condition-based maintenance, customized for the specific operating status of each machine to reduce outage and overhaul costs. Using the remote monitoring technology, customers are able to get fast telephone advice and secure remote support, online help, advanced troubleshooting and intervention, provided by specialist personnel who know the plant's design and understand its operation.

Additionally, we offer comprehensive spare-part service, repairs and maintenance solutions designed to increase the reliability and availability of the plant. Our retrofit solutions return turbines to the state of the art even after a normal operating life. Long-term maintenance contracts assure prolonged plant operation at predefined costs.

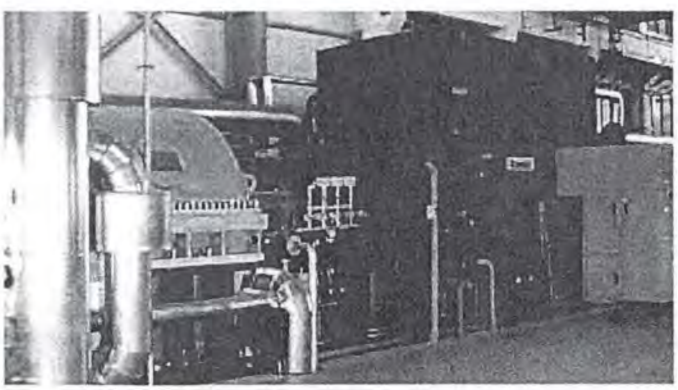
Our service solutions are based on long experience of taking care of a substantial global fleet. This experience is incorporated systematically into our design and manufacturing as well as our service and maintenance practice, making Siemens a reliable partner now and in the future.



***SST-300:** 26 MW back pressure turbine for a sugar and ethanol plant in Brazil*

## Reference examples

**The SST-300 has been sold for a rich variety of applications around the world. The following references exemplify this versatility of application.**



***Mielec, Poland:** 21 MW extraction condensing turboset in a coal-fired cogeneration plant of the Polish IPP Elektrociepłownia Mielec*

***Ceske Budejovice, Czech Republic:** 29 MW back-pressure turbine for district heating plant*

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Siemens AG
Energy Sector
Freyeslebenstrasse 1
91058 Erlangen, Germany

Siemens AG, Energy Sector
Oil & Gas Division
Wolfgang-Reuter-Platz
47053 Duisburg, Germany

Siemens Energy, Inc.
10730 Telge Road
Houston, Texas 77095, USA

For more information, contact our Customer Support Center.
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Fax: +49 180/524 24 71
(Charges depending on provider)
e-mail: support.energy@siemens.com

Oil & Gas Division
Order No. E50001-W410-A102-V2-4A00
Printed in Germany
Dispo 05400 c4b: 1387
S WS 08086.

Printed on elementary chlorine-free bleached paper.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC

OMB Control # 1902-0075
Expiration 5/31/2016

# Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

## Application Information

**1a** Full name of applicant (legal entity on whose behalf qualifying facility status is sought for this facility)
Energy Partners II, LLC

**1b** Applicant street address
c/o Wellons Group, Inc.
Attn: Jason B. Joner
2525 West Firestone Lane

**1c** City
Vancouver

**1d** State/province
Washington

**1e** Postal code
98660

**1f** Country (if not United States)

**1g** Telephone number
360-750-3500

**1h** Has the instant facility ever previously been certified as a QF? Yes ☐ No ☒

**1i** If yes, provide the docket number of the last known QF filing pertaining to this facility: QF__ - __ - __

**1j** Under which certification process is the applicant making this filing?
☒ Notice of self-certification (see note below)
☐ Application for Commission certification (requires filing fee; see "Filing Fee" section on page 3)

Note: a notice of self-certification is a notice by the applicant itself that its facility complies with the requirements for QF status. A notice of self-certification does not establish a proceeding, and the Commission does not review a notice of self-certification to verify compliance. See the "What to Expect From the Commission After You File" section on page 3 for more information.

**1k** What type(s) of QF status is the applicant seeking for its facility? (check all that apply)
☐ Qualifying small power production facility status ☒ Qualifying cogeneration facility status

**1l** What is the purpose and expected effective date(s) of this filing?
☒ Original certification; facility expected to be installed by 4/1/19 and to begin operation on 6/1/19
☐ Change(s) to a previously certified facility to be effective on ____
(identify type(s) of change(s) below, and describe change(s) in the Miscellaneous section starting on page 19)
☐ Name change and/or other administrative change(s)
☐ Change in ownership
☐ Change(s) affecting plant equipment, fuel use, power production capacity and/or cogeneration thermal output
☐ Supplement or correction to a previous filing submitted on ____
(describe the supplement or correction in the Miscellaneous section starting on page 19)

**1m** If any of the following three statements is true, check the box(es) that describe your situation and complete the form to the extent possible, explaining any special circumstances in the Miscellaneous section starting on page 19.
☐ The instant facility complies with the Commission's QF requirements by virtue of a waiver of certain regulations previously granted by the Commission in an order dated ____ (specify any other relevant waiver orders in the Miscellaneous section starting on page 19)
☐ The instant facility would comply with the Commission's QF requirements if a petition for waiver submitted concurrently with this application is granted
☐ The instant facility complies with the Commission's regulations, but has special circumstances, such as the employment of unique or innovative technologies not contemplated by the structure of this form, that make the demonstration of compliance via this form difficult or impossible (describe in Misc. section starting on p. 19)



## Contact Information

**2a** Name of contact person
Jason B. Joner

**2b** Telephone number
360-750-3500

**2c** Which of the following describes the contact person's relationship to the applicant? (check one)
☐ Applicant (self) ☒ Employee, owner or partner of applicant authorized to represent the applicant
☐ Employee of a company affiliated with the applicant authorized to represent the applicant on this matter
☐ Lawyer, consultant, or other representative authorized to represent the applicant on this matter

**2d** Company or organization name (if applicant is an individual, check here and skip to line 2e) ☐
Wellons Group, Inc.

**2e** Street address (if same as Applicant, check here and skip to line 3a) ☒

**2f** City

**2g** State/province

**2h** Postal code

**2i** Country (if not United States)

## Facility Identification and Location

**3a** Facility name
Energy Partners II, LLC

**3b** Street address (if a street address does not exist for the facility, check here and skip to line 3c) ☒

**3c** Geographic coordinates: If you indicated that no street address exists for your facility by checking the box in line 3b, then you must specify the latitude and longitude coordinates of the facility in degrees (to three decimal places). Use the following formula to convert to decimal degrees from degrees, minutes and seconds: decimal degrees = degrees + (minutes/60) + (seconds/3600). See the "Geographic Coordinates" section on page 4 for help. If you provided a street address for your facility in line 3b, then specifying the geographic coordinates below is optional.

Longitude ☐ East (+) ☒ West (-) 120.356 degrees
Latitude ☒ North (+) ☐ South (-) 42.204 degrees

**3d** City (if unincorporated, check here and enter nearest city) ☐
Lakeview

**3e** State/province
Oregon

**3f** County (or check here for independent city) ☐
Lake

**3g** Country (if not United States)

## Transacting Utilities

Identify the electric utilities that are contemplated to transact with the facility.

**4a** Identify utility interconnecting with the facility
Pacific Power

**4b** Identify utilities providing wheeling service or check here if none ☐
Pacific Power

**4c** Identify utilities purchasing the useful electric power output or check here if none ☐
Portland General Electric

**4d** Identify utilities providing supplementary power, backup power, maintenance power, and/or interruptible power service or check here if none ☐
Pacific Power

Ownership and Operation

**5a** Direct ownership as of effective date or operation date: Identify all direct owners of the facility holding at least 10 percent equity interest. For each identified owner, also (1) indicate whether that owner is an electric utility, as defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or a holding company, as defined in section 1262(8) of the Public Utility Holding Company Act of 2005 (42 U.S.C. 16451(8)), and (2) for owners which are electric utilities or holding companies, provide the percentage of equity interest in the facility held by that owner. If no direct owners hold at least 10 percent equity interest in the facility, then provide the required information for the two direct owners with the largest equity interest in the facility.

| | Full legal names of direct owners | Electric utility or holding company | If Yes, % equity interest |
|---|---|---|---|
| 1) | Wellons Group, Inc. | Yes ☒ No ☐ | 100% |
| 2) | | Yes ☐ No ☐ | % |
| 3) | | Yes ☐ No ☐ | % |
| 4) | | Yes ☐ No ☐ | % |
| 5) | | Yes ☐ No ☐ | % |
| 6) | | Yes ☐ No ☐ | % |
| 7) | | Yes ☐ No ☐ | % |
| 8) | | Yes ☐ No ☐ | % |
| 9) | | Yes ☐ No ☐ | % |
| 10) | | Yes ☐ No ☐ | % |

☐ Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

**5b** Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all upstream (i.e., indirect) owners of the facility that both (1) hold at least 10 percent equity interest in the facility, and (2) are electric utilities, as defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding companies, as defined in section 1262(8) of the Public Utility Holding Company Act of 2005 (42 U.S.C. 16451(8)). Also provide the percentage of equity interest in the facility held by such owners. (Note that, because upstream owners may be subsidiaries of one another, total percent equity interest reported may exceed 100 percent.)

Check here if no such upstream owners exist. ☒

| | Full legal names of electric utility or holding company upstream owners | % equity interest |
|---|---|---|
| 1) | | % |
| 2) | | % |
| 3) | | % |
| 4) | | % |
| 5) | | % |
| 6) | | % |
| 7) | | % |
| 8) | | % |
| 9) | | % |
| 10) | | % |

☐ Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

**5c** Identify the facility operator

Wellons, Inc.



Energy Input

**6a** Describe the primary energy input: (check one main category and, if applicable, one subcategory)

☒ Biomass (specify)
- ☐ Landfill gas
- ☐ Manure digester gas
- ☐ Municipal solid waste
- ☐ Sewage digester gas
- ☒ Wood
- ☐ Other biomass (describe on page 19)

☐ Waste (specify type below in line 6b)

☐ Renewable resources (specify)
- ☐ Hydro power - river
- ☐ Hydro power - tidal
- ☐ Hydro power - wave
- ☐ Solar - photovoltaic
- ☐ Solar - thermal
- ☐ Wind
- ☐ Other renewable resource (describe on page 19)

☐ Geothermal

☐ Fossil fuel (specify)
- ☐ Coal (not waste)
- ☐ Fuel oil/diesel
- ☐ Natural gas (not waste)
- ☐ Other fossil fuel (describe on page 19)

☐ Other (describe on page 19)

**6b** If you specified "waste" as the primary energy input in line 6a, indicate the type of waste fuel used: (check one)

☐ Waste fuel listed in 18 C.F.R. § 292.202(b) (specify one of the following)
- ☐ Anthracite culm produced prior to July 23, 1985
- ☐ Anthracite refuse that has an average heat content of 6,000 Btu or less per pound and has an average ash content of 45 percent or more
- ☐ Bituminous coal refuse that has an average heat content of 9,500 Btu per pound or less and has an average ash content of 25 percent or more
- ☐ Top or bottom subbituminous coal produced on Federal lands or on Indian lands that has been determined to be waste by the United States Department of the Interior's Bureau of Land Management (BLM) or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction, provided that the applicant shows that the latter coal is an extension of that determined by BLM to be waste
- ☐ Coal refuse produced on Federal lands or on Indian lands that has been determined to be waste by the BLM or that is located on non- Federal or non-Indian lands outside of BLM's jurisdiction, provided that applicant shows that the latter is an extension of that determined by BLM to be waste
- ☐ Lignite produced in association with the production of montan wax and lignite that becomes exposed as a result of such a mining operation
- ☐ Gaseous fuels (except natural gas and synthetic gas from coal) (describe on page 19)
- ☐ Waste natural gas from gas or oil wells (describe on page 19 how the gas meets the requirements of 18 C.F.R. § 2.400 for waste natural gas; include with your filing any materials necessary to demonstrate compliance with 18 C.F.R. § 2.400)
- ☐ Materials that a government agency has certified for disposal by combustion (describe on page 19)
- ☐ Heat from exothermic reactions (describe on page 19) ☐ Residual heat (describe on page 19)
- ☐ Used rubber tires ☐ Plastic materials ☐ Refinery off-gas ☐ Petroleum coke

☐ Other waste energy input that has little or no commercial value and exists in the absence of the qualifying facility industry (describe in the Miscellaneous section starting on page 19; include a discussion of the fuel's lack of commercial value and existence in the absence of the qualifying facility industry)

**6c** Provide the average energy input, calculated on a calendar year basis, in terms of Btu/h for the following fossil fuel energy inputs, and provide the related percentage of the total average annual energy input to the facility (18 C.F.R. § 292.202(j)). For any oil or natural gas fuel, use lower heating value (18 C.F.R. § 292.202(m)).

| Fuel | Annual average energy input for specified fuel | Percentage of total annual energy input |
|---|---|---|
| Natural gas | 0 Btu/h | 0 % |
| Oil-based fuels | 0 Btu/h | 0 % |
| Coal | 0 Btu/h | 0 % |

**Technical Facility Information**

Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

| | |
|---|---|
| **7a** The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions | 10,000 kW |
| **7b** Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your reported parasitic station power. | 750 kW |
| **7c** Electrical losses in interconnection transformers | 50 kW |
| **7d** Electrical losses in AC/DC conversion equipment, if any | 0 kW |
| **7e** Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection with the utility | 0 kW |
| **7f** Total deductions from gross power production capacity = 7b + 7c + 7d + 7e | 800.0 kW |
| **7g** Maximum net power production capacity = 7a - 7f | 9,200.0 kW |

**7h** Description of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 19.

A Wellons 125,000 PPH wood-fired boiler will provide steam to a Siemens extraction-condensing turbine-generator with a nominal rating of 10,000kW. Two feedwater pumps are provided, one for standby. Steam will be extracted for lumber drying, with condensate return to the system.



## Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you must respond to the items on this page. Otherwise, skip page 10.

**Certification of Compliance with Size Limitations**

Pursuant to 18 C.F.R. § 292.204(a), the power production capacity of any small power production facility, together with the power production capacity of any other small power production facilities that use the same energy resource, are owned by the same person(s) or its affiliates, and are located at the same site, may not exceed 80 megawatts. To demonstrate compliance with this size limitation, or to demonstrate that your facility is exempt from this size limitation under the Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Pub. L. 101-575, 104 Stat. 2834 (1990) *as amended by* Pub. L. 102-46, 105 Stat. 249 (1991)), respond to lines 8a through 8e below (as applicable).

**8a** Identify any facilities with electrical generating equipment located within 1 mile of the electrical generating equipment of the instant facility, and for which any of the entities identified in lines 5a or 5b, or their affiliates, holds at least a 5 percent equity interest.

Check here if no such facilities exist. ☐

| | Facility location (city or county, state) | Root docket # (if any) | Common owner(s) | Maximum net power production capacity |
|---|---|---|---|---|
| 1) | | QF __ - __ | | kW |
| 2) | | QF __ - __ | | kW |
| 3) | | QF __ - __ | | kW |

☐ Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

**8b** The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Incentives Act) provides exemption from the size limitations in 18 C.F.R. § 292.204(a) for certain facilities that were certified prior to 1995. Are you seeking exemption from the size limitations in 18 C.F.R. § 292.204(a) by virtue of the Incentives Act?

☐ Yes (continue at line 8c below) ☐ No (skip lines 8c through 8e)

**8c** Was the original notice of self-certification or application for Commission certification of the facility filed on or before December 31, 1994? Yes ☐ No ☐

**8d** Did construction of the facility commence on or before December 31, 1999? Yes ☐ No ☐

**8e** If you answered No in line 8d, indicate whether reasonable diligence was exercised toward the completion of the facility, taking into account all factors relevant to construction? Yes ☐ No ☐ If you answered Yes, provide a brief narrative explanation in the Miscellaneous section starting on page 19 of the construction timeline (in particular, describe why construction started so long after the facility was certified) and the diligence exercised toward completion of the facility.

**Certification of Compliance with Fuel Use Requirements**

Pursuant to 18 C.F.R. § 292.204(b), qualifying small power production facilities may use fossil fuels, in minimal amounts, for only the following purposes: ignition; start-up; testing; flame stabilization; control use; alleviation or prevention of unanticipated equipment outages; and alleviation or prevention of emergencies, directly affecting the public health, safety, or welfare, which would result from electric power outages. The amount of fossil fuels used for these purposes may not exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter.

**9a** Certification of compliance with 18 C.F.R. § 292.204(b) with respect to uses of fossil fuel:

☐ Applicant certifies that the facility will use fossil fuels *exclusively* for the purposes listed above.

**9b** Certification of compliance with 18 C.F.R. § 292.204(b) with respect to amount of fossil fuel used annually:

☐ Applicant certifies that the amount of fossil fuel used at the facility will not, in aggregate, exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter.

## Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 11 through 13. Otherwise, skip pages 11 through 13.

**General Cogeneration Information**

Pursuant to 18 C.F.R. § 292.202(c), a cogeneration facility produces electric energy and forms of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes, through the sequential use of energy. Pursuant to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a topping-cycle cogeneration facility, the use of reject heat from a power production process in sufficient amounts in a thermal application or process to conform to the requirements of the operating standard contained in 18 C.F.R. § 292.205(a); or (2) for a bottoming-cycle cogeneration facility, the use of at least some reject heat from a thermal application or process for power production.

**10a** What type(s) of cogeneration technology does the facility represent? (check all that apply)

☒ Topping-cycle cogeneration ☐ Bottoming-cycle cogeneration

**10b** To help demonstrate the sequential operation of the cogeneration process, and to support compliance with other requirements such as the operating and efficiency standards, include with your filing a mass and heat balance diagram depicting average annual operating conditions. This diagram must include certain items and meet certain requirements, as described below. You must check next to the description of each requirement below to certify that you have complied with these requirements.

| Check to certify compliance with indicated requirement | Requirement |
|---|---|
| ☒ | Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process. |
| ☒ | Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation. |
| ☒ | Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values. |
| ☒ | Diagram must specify average gross electric output in kW or MW for each generator. |
| ☒ | Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output. |
| ☒ | At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or kJ/kg). Exception: For systems where the working fluid is *liquid only* (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 19, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/(lb*R) or 4.195 kJ/(kg*K). |
| ☒ | Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine. |
| ☒ | Diagram must specify working fluid flow conditions at delivery to and return from each thermal application. |
| ☒ | Diagram must specify working fluid flow conditions at make-up water inputs. |



**EPAct 2005 Requirements for Fundamental Use of Energy Output from Cogeneration Facilities**

EPAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAct 2005) established a new section 210(n) of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for any qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and (2) was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by the Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonstrate whether these additional requirements apply to your cogeneration facility and, if so, whether your facility complies with such requirements.

**11a** Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes ☐ No ☒

**11b** Was the initial filing seeking certification of your facility (whether a notice of self-certification or an application for Commission certification) filed on or before February 1, 2006? Yes ☐ No ☒

If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both lines 11a and 11b are No, skip to line 11e below.

**11c** With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006?

☐ Yes (continue at line 11d below)

☐ No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may be subject to to these requirements in the future if changes are made to the facility. At such time, the applicant would need to recertify the facility to determine eligibility. Skip lines 11d through 11j.

**11d** Does the applicant contend that the changes identified in line 11c are not so significant as to make the facility a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements?

☐ Yes. Provide in the Miscellaneous section starting on page 19 a description of any relevant changes made to the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j.

☐ No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining the applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that were initiated on or after February 2, 2006. Continue below at line 11e.

**11e** Will electric energy from the facility be sold pursuant to section 210 of PURPA?

☒ Yes. The facility is an EPAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.R. § 292.205(d)(2) by continuing at line 11f below.

☐ No. Applicant certifies that energy will *not* be sold pursuant to section 210 of PURPA. Applicant also certifies its understanding that it must recertify its facility in order to determine compliance with the requirements of 18 C.F.R. § 292.205(d) *before* selling energy pursuant to section 210 of PURPA in the future. Skip lines 11f through 11j.

**11f** Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than or equal to 5,000 kW?

☐ Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provides a rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,000 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Skip lines 11g through 11j.

☒ No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on the next page at line 11g.

**EPAct 2005 Requirements for Fundamental Use of Energy Output from Cogeneration Facilities (continued)**

Lines 11g through 11k below guide the applicant through the process of demonstrating compliance with the requirements for "fundamental use" of the facility's energy output. 18 C.F.R. § 292.205(d)(2). Only respond to the lines on this page if the instructions on the previous page direct you to do so. Otherwise, skip this page.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPAct 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j *even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2).*

| | |
|---|---|
| 11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal generation plant losses and parasitic loads) expected to be used annually for industrial, commercial, residential or institutional purposes and not sold to an electric utility | 78,397 MWh |
| 11h Total amount of electrical, thermal, chemical and mechanical energy expected to be sold to an electric utility | 74,393 MWh |
| 11i Percentage of total annual energy output expected to be used for industrial, commercial, residential or institutional purposes and not sold to a utility = 100 * 11g /(11g + 11h) | 51.3 % |

11j Is the response in line 11i greater than or equal to 50 percent?

☒ Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

☐ No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 19 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. *See* Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the relevant annual standard, taking into account expected variations in production conditions.



## Information Required for Topping-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 14 and 15. Otherwise, skip pages 14 and 15.

**Usefulness of Topping-Cycle Thermal Output**

The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial or commercial process or used in a heating or cooling application. Pursuant to sections 292.202(c), (d) and (h) of the Commission's regulations (18 C.F.R. §§ 292.202(c), (d) and (h)), the thermal energy output of a qualifying topping-cycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the topping-cycle cogeneration facility by responding to lines 12a and 12b below.

12a Identify and describe each thermal host, and specify the annual average rate of thermal output made available to each host for each use. For hosts with multiple uses of thermal output, provide the data for each use in *separate rows.*

| | Name of entity (thermal host) taking thermal output | Thermal host's relationship to facility; Thermal host's use of thermal output | Average annual rate of thermal output attributable to use (net of heat contained in process return or make-up water) |
|---|---|---|---|
| 1) | Collins Pine Company | Applicant or affiliate<br>Other ind. process (describe in line 12b) | 36,933,637 Btu/h |
| 2) | | Select thermal host's relationship to facility<br>Select thermal host's use of thermal output | Btu/h |
| 3) | | Select thermal host's relationship to facility<br>Select thermal host's use of thermal output | Btu/h |
| 4) | | Select thermal host's relationship to facility<br>Select thermal host's use of thermal output | Btu/h |
| 5) | | Select thermal host's relationship to facility<br>Select thermal host's use of thermal output | Btu/h |
| 6) | | Select thermal host's relationship to facility<br>Select thermal host's use of thermal output | Btu/h |

☐ Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

12b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each use of the thermal output identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's use of thermal output is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific use of thermal output related to the instant facility, then you need only provide a brief description of that use and a reference by date and docket number to the order certifying your facility with the indicated use. Such exemption may not be used if any change creates a material deviation from the previously authorized use.) If additional space is needed, continue in the Miscellaneous section starting on page 19.

Lumber drying.

## Topping-Cycle Operating and Efficiency Value Calculation

Applicants for facilities representing topping-cycle technology must demonstrate compliance with the topping-cycle operating standard and, if applicable, efficiency standard. Section 292.205(a)(1) of the Commission's regulations (18 C.F.R. § 292.205(a)(1)) establishes the operating standard for topping-cycle cogeneration facilities: the useful thermal energy output must be no less than 5 percent of the total energy output. Section 292.205(a)(2) (18 C.F.R. § 292.205(a)(2)) establishes the efficiency standard for topping-cycle cogeneration facilities for which installation commenced on or after March 13, 1980: the useful power output of the facility plus one-half the useful thermal energy output must (A) be no less than 42.5 percent of the total energy input of natural gas and oil to the facility; and (B) if the useful thermal energy output is less than 15 percent of the total energy output of the facility, be no less than 45 percent of the total energy input of natural gas and oil to the facility. To demonstrate compliance with the topping-cycle operating and/or efficiency standards, or to demonstrate that your facility is exempt from the efficiency standard based on the date that installation commenced, respond to lines 13a through 13l below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 13a through 13l below considering only the energy inputs and outputs attributable to the topping-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion (topping or bottoming) of the cogeneration system.

| | |
|---|---|
| **13a** Indicate the annual average rate of useful thermal energy output made available to the host(s), net of any heat contained in condensate return or make-up water | 26,300,000 Btu/h |
| **13b** Indicate the annual average rate of net electrical energy output | 9,200 kW |
| **13c** Multiply line 13b by 3,412 to convert from kW to Btu/h | 31,390,400 Btu/h |
| **13d** Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero) | 0 hp |
| **13e** Multiply line 13d by 2,544 to convert from hp to Btu/h | 0.0 Btu/h |
| **13f** Indicate the annual average rate of energy input from natural gas and oil | 0 Btu/h |
| **13g** Topping-cycle operating value = 100 * 13a / (13a + 13c + 13e) | 45.6 % |
| **13h** Topping-cycle efficiency value = 100 * (0.5*13a + 13c + 13e) / 13f | 100 % |

**13i** Compliance with operating standard: Is the operating value shown in line 13g greater than or equal to 5%?

☒ Yes (complies with operating standard) ☐ No (does not comply with operating standard)

**13j** Did installation of the facility in its current form commence on or after March 13, 1980?

☒ Yes. Your facility is subject to the efficiency requirements of 18 C.F.R. § 292.205(a)(2). Demonstrate compliance with the efficiency requirement by responding to line 13k or 13l, as applicable, below.

☐ No. Your facility is exempt from the efficiency standard. Skip lines 13k and 13l.

**13k** Compliance with efficiency standard (for low operating value): If the operating value shown in line 13g is less than 15%, then indicate below whether the efficiency value shown in line 13h greater than or equal to 45%:

☐ Yes (complies with efficiency standard) ☐ No (does not comply with efficiency standard)

**13l** Compliance with efficiency standard (for high operating value): If the operating value shown in line 13g is greater than or equal to 15%, then indicate below whether the efficiency value shown in line 13h is greater than or equal to 42.5%:

☒ Yes (complies with efficiency standard) ☐ No (does not comply with efficiency standard)



# Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 16 and 17. Otherwise, skip pages 16 and 17.

## Usefulness of Bottoming-Cycle Thermal Output

The thermal energy output of a bottoming-cycle cogeneration facility is the energy related to the process(es) from which at least some of the reject heat is then used for power production. Pursuant to sections 292.202(c) and (e) of the Commission's regulations (18 C.F.R. § 292.202(c) and (e)), the thermal energy output of a qualifying bottoming-cycle cogeneration facility must be useful. In connection with this requirement, describe the process(es) from which at least some of the reject heat is used for power production by responding to lines 14a and 14b below.

**14a** Identify and describe each thermal host and each bottoming-cycle cogeneration process engaged in by each host. For hosts with multiple bottoming-cycle cogeneration processes, provide the data for each process *in separate rows.*

| | Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production | Thermal host's relationship to facility; Thermal host's process type | Has the energy input to the thermal host been augmented for purposes of increasing power production capacity? (if Yes, describe on p. 19) |
|---|---|---|---|
| 1) | | Select thermal host's relationship to facility<br>Select thermal host's process type | Yes ☐ No ☐ |
| 2) | | Select thermal host's relationship to facility<br>Select thermal host's process type | Yes ☐ No ☐ |
| 3) | | Select thermal host's relationship to facility<br>Select thermal host's process type | Yes ☐ No ☐ |

☐ Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

**14b** Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each process identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's process is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific bottoming-cycle process related to the instant facility, then you need only provide a brief description of that process and a reference by date and docket number to the order certifying your facility with the indicated process. Such exemption may not be used if any material changes to the process have been made.) If additional space is needed, continue in the Miscellaneous section starting on page 19.

## Bottoming-Cycle Operating and Efficiency Value Calculation

Applicants for facilities representing bottoming-cycle technology and for which installation commenced on or after March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency standards. Section 292.205(b) of the Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standard for bottoming-cycle cogeneration facilities: the useful power output of the facility must be no less than 45 percent of the energy input of natural gas and oil for supplementary firing. To demonstrate compliance with the bottoming-cycle efficiency standard (if applicable), or to demonstrate that your facility is exempt from this standard based on the date that installation of the facility began, respond to lines 15a through 15h below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 15a through 15h below considering only the energy inputs and outputs attributable to the bottoming-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion of the cogeneration system (topping or bottoming).

15a Did installation of the facility in its current form commence on or after March 13, 1980?

☐ Yes. Your facility is subject to the efficiency requirement of 18 C.F.R. § 292.205(b). Demonstrate compliance with the efficiency requirement by responding to lines 15b through 15h below.

☐ No. Your facility is exempt from the efficiency standard. Skip the rest of page 17.

| | |
|---|---|
| 15b Indicate the annual average rate of net electrical energy output | kW |
| 15c Multiply line 15b by 3,412 to convert from kW to Btu/h | 0 Btu/h |
| 15d Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero) | hp |
| 15e Multiply line 15d by 2,544 to convert from hp to Btu/h | 0 Btu/h |
| 15f Indicate the annual average rate of supplementary energy input from natural gas or oil | Btu/h |
| 15g Bottoming-cycle efficiency value = 100 * (15c + 15e) / 15f | 0 % |

15h Compliance with efficiency standard: Indicate below whether the efficiency value shown in line 15g is greater than or equal to 45%:

☐ Yes (complies with efficiency standard) ☐ No (does not comply with efficiency standard)



## Certificate of Completeness, Accuracy and Authority

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

Signer identified below certifies the following: (check all items and applicable subitems)

☒ He or she has read the filing, including any information contained in any attached documents, such as cogeneration mass and heat balance diagrams, and any information contained in the Miscellaneous section starting on page 19, and knows its contents.

☒ He or she has provided all of the required information for certification, and the provided information is true as stated, to the best of his or her knowledge and belief.

☒ He or she possess full power and authority to sign the filing; as required by Rule 2005(a)(3) of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2005(a)(3)), he or she is one of the following: (check one)

- ☐ The person on whose behalf the filing is made
- ☒ An officer of the corporation, trust, association, or other organized group on behalf of which the filing is made
- ☐ An officer, agent, or employe of the governmental authority, agency, or instrumentality on behalf of which the filing is made
- ☐ A representative qualified to practice before the Commission under Rule 2101 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2101) and who possesses authority to sign

☒ He or she has reviewed all automatic calculations and agrees with their results, unless otherwise noted in the Miscellaneous section starting on page 19.

☒ He or she has provided a copy of this Form 556 and all attachments to the utilities with which the facility will interconnect and transact (see lines 4a through 4d), as well as to the regulatory authorities of the states in which the facility and those utilities reside. See the Required Notice to Public Utilities and State Regulatory Authorities section on page 3 for more information.

Provide your signature, address and signature date below. Rule 2005(c) of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2005(c)) provides that persons filing their documents electronically may use typed characters representing his or her name to sign the filed documents. A person filing this document electronically should sign (by typing his or her name) in the space provided below.

| Your Signature | Your address | Date |
|---|---|---|
| Jason B. Joner | 2525 West Firestone Lane<br>Vancouver, Washington 98660 | 4/29/2016 |

Audit Notes

Commission Staff Use Only: ☐

## Miscellaneous

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information *clearly identify the line number that the information belongs to*. You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

# FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC

OMB Control # 1902-0075
Expiration 05/31/2016

# Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

## General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

## Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. See 18 C.F.R. § 292.203.

## How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button ( ? ) for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filing.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

## How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

## Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget. Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Officer, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426 (DataClearance@ferc.gov); and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oira_submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.



## Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at http://earth.google.com), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

## Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-guide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

☐ **Non-Public:** Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.

☐ **Public (redacted):** Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicants's Form 556 contains all data except for data from the lines indicated below, which has been redacted.

**Privileged:** Indicate below which lines of your form contain data for which you are seeking privileged treatment

**Critical Energy Infrastructure Information (CEII):** Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

# EXHIBIT C
# REQUIRED FACILITY DOCUMENTS

Sellers Generation Interconnection Agreement with interconnecting utility

Firm Transmission Agreement between Seller and Transmission Provider

Local Building Permit

Air Contamination Discharge Permit

Engineering, Procurement and Construction Contract

conditional permits use as required

Access Permits if required

# EXHIBIT D
# START-UP TESTING

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

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

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

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

# EXHIBIT E
# SCHEDULE

## 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 |
| 2015 | 31.13 | 25.13 | 26.13 | 21.88 | 22.89 | 25.13 | 33.13 | 34.73 | 29.63 | 27.38 | 29.88 | 33.13 |
| 2016 | 31.58 | 30.16 | 27.08 | 25.86 | 24.98 | 23.21 | 32.05 | 36.41 | 32.37 | 31.12 | 32.12 | 34.58 |
| 2017 | 34.27 | 32.71 | 29.35 | 28.29 | 27.50 | 25.55 | 34.68 | 39.41 | 35.01 | 33.98 | 35.07 | 37.78 |
| 2018 | 36.81 | 34.95 | 31.34 | 29.68 | 29.86 | 26.82 | 37.18 | 42.26 | 37.53 | 36.07 | 37.24 | 40.12 |
| 2019 | 38.30 | 36.56 | 32.79 | 31.05 | 30.19 | 28.05 | 38.88 | 44.22 | 39.27 | 37.74 | 38.96 | 41.97 |
| 2020 | 130.42 | 130.40 | 129.50 | 130.04 | 133.82 | 132.76 | 132.39 | 132.24 | 130.72 | 129.58 | 130.57 | 129.37 |
| 2021 | 133.36 | 133.64 | 131.86 | 133.13 | 136.49 | 135.59 | 134.91 | 135.52 | 133.73 | 132.54 | 134.08 | 132.51 |
| 2022 | 136.24 | 136.10 | 133.85 | 135.90 | 139.41 | 138.20 | 137.67 | 137.62 | 136.32 | 135.14 | 136.83 | 135.12 |
| 2023 | 139.39 | 138.88 | 136.54 | 138.99 | 141.88 | 141.01 | 140.60 | 140.17 | 139.18 | 137.81 | 139.93 | 138.53 |
| 2024 | 141.20 | 141.38 | 139.07 | 141.45 | 144.67 | 143.47 | 143.33 | 143.02 | 142.81 | 139.99 | 141.17 | 141.32 |
| 2025 | 144.44 | 144.83 | 142.24 | 145.02 | 149.08 | 147.69 | 146.57 | 146.72 | 145.76 | 143.11 | 144.48 | 144.07 |
| 2026 | 148.08 | 147.69 | 145.97 | 148.54 | 153.90 | 149.69 | 149.69 | 150.17 | 149.64 | 146.23 | 148.39 | 147.27 |
| 2027 | 150.98 | 150.46 | 148.51 | 151.01 | 158.07 | 152.64 | 152.20 | 153.90 | 152.54 | 149.20 | 150.73 | 150.17 |
| 2028 | 153.78 | 152.55 | 150.16 | 154.12 | 160.66 | 154.93 | 156.77 | 155.78 | 154.75 | 152.38 | 153.65 | 152.73 |
| 2029 | 157.02 | 156.74 | 153.60 | 157.59 | 169.40 | 159.30 | 159.39 | 159.39 | 159.45 | 155.48 | 156.44 | 156.31 |
| 2030 | 160.28 | 159.94 | 157.24 | 160.66 | 173.85 | 164.43 | 161.89 | 161.75 | 163.38 | 158.51 | 159.19 | 159.23 |
| 2031 | 163.23 | 162.64 | 160.72 | 164.67 | 177.15 | 169.11 | 164.90 | 166.01 | 166.26 | 161.75 | 163.06 | 162.54 |
| 2032 | 165.75 | 165.16 | 163.21 | 167.22 | 179.91 | 171.73 | 167.46 | 168.59 | 168.64 | 164.26 | 165.59 | 165.06 |
| 2033 | 169.59 | 168.98 | 166.98 | 171.09 | 184.06 | 175.70 | 171.33 | 172.48 | 172.74 | 168.06 | 169.41 | 168.88 |
| 2034 | 173.01 | 172.39 | 170.36 | 174.55 | 187.76 | 179.24 | 174.79 | 175.97 | 176.23 | 171.46 | 172.84 | 172.39 |
| 2035 | 176.35 | 175.72 | 173.65 | 177.91 | 191.39 | 182.70 | 178.16 | 179.36 | 179.63 | 174.76 | 176.17 | 175.62 |
| 2036 | 179.40 | 178.76 | 176.65 | 180.99 | 194.69 | 185.85 | 181.24 | 182.46 | 182.74 | 177.79 | 179.22 | 179.65 |
| 2037 | 183.23 | 182.57 | 180.41 | 184.85 | 198.85 | 189.92 | 185.10 | 186.35 | 186.63 | 181.59 | 183.04 | 182.46 |
| 2038 | 186.76 | 186.09 | 183.90 | 188.42 | 202.69 | 193.48 | 188.68 | 189.95 | 190.23 | 185.09 | 186.57 | 185.98 |
| 2039 | 190.37 | 189.68 | 187.44 | 192.05 | 206.60 | 197.22 | 192.32 | 193.61 | 193.91 | 188.65 | 190.17 | 189.57 |
| 2040 | 193.66 | 192.96 | 190.69 | 195.37 | 210.16 | 200.62 | 195.64 | 196.96 | 197.26 | 191.92 | 193.46 | 192.85 |

## SCHEDULE 201 (Continued)

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

| TABLE 4b | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Renewable Avoided Costs | | | | | | | | | | | | |
| Renewable Fixed Price Option for Base Load QF | | | | | | | | | | | | |
| Off-Peak Forecast ($/MWH) | | | | | | | | | | | | |
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 2015 | 26.88 | 20.38 | 20.88 | 15.88 | 17.88 | 19.13 | 23.88 | 26.13 | 25.63 | 23.13 | 25.38 | 28.38 |
| 2016 | 27.21 | 26.14 | 23.47 | 18.69 | 16.80 | 13.58 | 23.28 | 27.89 | 25.68 | 27.45 | 28.12 | 30.26 |
| 2017 | 30.42 | 28.21 | 26.19 | 21.62 | 19.38 | 15.58 | 25.52 | 30.64 | 28.17 | 30.08 | 30.82 | 33.18 |
| 2018 | 32.75 | 31.44 | 28.18 | 22.35 | 20.04 | 16.11 | 27.95 | 33.58 | 30.86 | 33.04 | 33.86 | 36.47 |
| 2019 | 34.58 | 33.20 | 29.75 | 23.58 | 21.14 | 16.98 | 29.51 | 35.46 | 32.58 | 34.89 | 35.76 | 38.52 |
| 2020 | 74.05 | 74.35 | 76.18 | 74.70 | 70.70 | 70.98 | 71.32 | 72.70 | 73.76 | 75.21 | 74.98 | 75.50 |
| 2021 | 76.61 | 75.69 | 77.70 | 76.08 | 72.65 | 72.71 | 73.48 | 73.88 | 75.25 | 77.66 | 74.78 | 76.80 |
| 2022 | 77.70 | 77.31 | 79.96 | 77.27 | 73.68 | 74.12 | 75.90 | 74.74 | 76.69 | 79.10 | 76.00 | 78.21 |
| 2023 | 78.70 | 78.76 | 81.53 | 79.38 | 74.14 | 75.53 | 77.17 | 76.51 | 78.04 | 80.71 | 77.14 | 79.90 |
| 2024 | 79.35 | 79.42 | 83.14 | 78.18 | 74.55 | 77.78 | 76.40 | 76.83 | 78.61 | 81.03 | 79.55 | 80.29 |
| 2025 | 80.96 | 80.94 | 84.88 | 80.33 | 74.54 | 78.20 | 78.02 | 79.19 | 79.32 | 82.81 | 82.21 | 81.48 |
| 2026 | 81.35 | 82.42 | 85.28 | 80.89 | 75.34 | 79.31 | 79.11 | 79.94 | 79.12 | 83.91 | 82.41 | 82.47 |
| 2027 | 84.14 | 84.11 | 86.28 | 82.89 | 75.15 | 80.77 | 81.16 | 80.43 | 80.90 | 86.39 | 83.38 | 83.99 |
| 2028 | 85.29 | 86.01 | 88.97 | 85.07 | 74.43 | 82.57 | 82.76 | 81.19 | 82.83 | 87.06 | 84.33 | 86.62 |
| 2029 | 85.87 | 86.84 | 90.61 | 86.72 | 68.73 | 82.93 | 84.21 | 82.59 | 84.39 | 88.00 | 86.85 | 88.12 |
| 2030 | 87.21 | 88.28 | 92.46 | 86.89 | 68.43 | 83.64 | 84.96 | 85.17 | 84.95 | 89.66 | 88.91 | 89.94 |
| 2031 | 89.10 | 90.50 | 93.69 | 87.32 | 69.91 | 83.38 | 86.78 | 86.97 | 85.14 | 91.14 | 90.93 | 90.04 |
| 2032 | 90.57 | 92.00 | 95.23 | 88.76 | 70.97 | 84.75 | 88.21 | 88.41 | 86.54 | 92.64 | 92.44 | 91.53 |
| 2033 | 92.57 | 94.03 | 97.34 | 90.72 | 72.53 | 86.63 | 90.16 | 90.36 | 88.46 | 94.69 | 94.49 | 93.55 |
| 2034 | 94.36 | 95.84 | 99.22 | 92.47 | 73.93 | 88.30 | 91.90 | 92.10 | 90.16 | 96.52 | 96.30 | 95.36 |
| 2035 | 96.18 | 97.69 | 101.13 | 94.25 | 75.36 | 90.00 | 93.68 | 93.88 | 91.90 | 98.38 | 98.16 | 97.20 |
| 2036 | 97.77 | 99.31 | 102.80 | 95.81 | 76.61 | 91.49 | 95.22 | 95.43 | 93.42 | 100.00 | 99.78 | 98.80 |
| 2037 | 99.93 | 101.50 | 105.07 | 97.93 | 78.30 | 93.51 | 97.33 | 97.54 | 95.49 | 102.21 | 101.99 | 100.99 |
| 2038 | 101.86 | 103.46 | 107.10 | 99.82 | 79.81 | 95.31 | 99.20 | 99.42 | 97.33 | 104.19 | 103.95 | 102.93 |
| 2039 | 103.82 | 105.46 | 109.17 | 101.74 | 81.35 | 97.15 | 101.12 | 101.34 | 99.21 | 106.20 | 105.96 | 104.92 |
| 2040 | 105.54 | 107.20 | 110.97 | 103.42 | 82.69 | 98.76 | 102.79 | 103.02 | 100.85 | 107.95 | 107.71 | 106.65 |

SCHEDULE 201 (Continued)

**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.





SCHEDULE 201 (Continued)

**PRICING FOR STANDARD PPA**

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

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

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

1) **Standard Fixed Price Option**

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

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

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

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

SCHEDULE 201 (Continued)

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

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





SCHEDULE 201 (Continued)

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

TABLE 1a
Avoided Costs
Standard Fixed Price Option for Base Load QF
On-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 31.13 | 25.13 | 26.13 | 21.88 | 22.88 | 25.13 | 33.13 | 34.73 | 29.63 | 27.38 | 28.88 | 33.13 |
| 2016 | 31.43 | 30.01 | 26.93 | 25.51 | 24.81 | 23.06 | 31.90 | 36.26 | 32.22 | 30.97 | 31.97 | 34.43 |
| 2017 | 34.12 | 32.56 | 29.20 | 28.13 | 27.35 | 25.40 | 34.51 | 39.26 | 34.86 | 33.83 | 34.92 | 37.63 |
| 2018 | 36.46 | 34.80 | 31.19 | 29.53 | 28.71 | 26.67 | 37.01 | 42.11 | 37.38 | 35.92 | 37.09 | 39.97 |
| 2019 | 38.14 | 36.40 | 32.63 | 30.89 | 30.03 | 27.89 | 38.72 | 44.06 | 39.11 | 37.58 | 38.80 | 41.81 |
| 2020 | 40.36 | 38.51 | 34.52 | 32.68 | 31.77 | 29.50 | 40.97 | 46.62 | 41.38 | 39.76 | 41.06 | 44.25 |
| 2021 | 78.65 | 78.41 | 74.08 | 73.15 | 73.29 | 73.45 | 73.59 | 73.74 | 73.90 | 74.05 | 76.07 | 77.39 |
| 2022 | 79.87 | 80.05 | 78.71 | 76.75 | 76.53 | 76.61 | 76.77 | 76.94 | 77.11 | 77.75 | 80.48 | 81.61 |
| 2023 | 82.88 | 82.91 | 80.52 | 79.06 | 78.47 | 78.48 | 78.64 | 78.81 | 78.99 | 79.72 | 82.44 | 83.38 |
| 2024 | 85.05 | 84.50 | 82.79 | 81.04 | 80.24 | 79.89 | 80.07 | 80.24 | 80.42 | 81.68 | 83.94 | 84.91 |
| 2025 | 87.42 | 86.98 | 85.17 | 83.82 | 83.53 | 83.72 | 83.91 | 84.10 | 84.30 | 84.97 | 88.09 | 89.08 |
| 2026 | 93.67 | 93.90 | 93.15 | 91.55 | 91.31 | 91.55 | 91.77 | 92.00 | 92.24 | 93.05 | 96.36 | 97.00 |
| 2027 | 98.91 | 99.16 | 94.04 | 92.43 | 92.18 | 92.41 | 92.63 | 92.86 | 93.10 | 93.79 | 97.14 | 98.19 |
| 2028 | 99.59 | 99.83 | 95.18 | 93.58 | 93.32 | 93.56 | 93.78 | 94.01 | 94.25 | 94.96 | 98.47 | 99.54 |
| 2029 | 102.08 | 101.44 | 98.36 | 96.44 | 95.98 | 96.23 | 96.46 | 96.70 | 96.95 | 97.67 | 101.14 | 103.35 |
| 2030 | 104.39 | 104.04 | 99.48 | 97.63 | 97.34 | 97.59 | 97.83 | 98.07 | 98.32 | 99.06 | 102.58 | 105.91 |
| 2031 | 105.92 | 105.62 | 101.91 | 99.62 | 99.32 | 99.57 | 99.81 | 100.05 | 100.31 | 101.06 | 104.65 | 105.79 |
| 2032 | 107.68 | 107.37 | 103.59 | 101.26 | 100.94 | 101.20 | 101.44 | 101.69 | 101.95 | 102.73 | 106.38 | 107.54 |
| 2033 | 110.15 | 109.84 | 105.98 | 103.61 | 103.29 | 103.55 | 103.80 | 104.05 | 104.32 | 105.10 | 108.83 | 110.01 |
| 2034 | 112.43 | 112.11 | 108.18 | 105.75 | 105.43 | 105.69 | 105.95 | 106.21 | 106.48 | 107.28 | 111.08 | 112.29 |
| 2035 | 114.62 | 114.29 | 110.28 | 107.81 | 107.48 | 107.75 | 108.01 | 108.27 | 108.55 | 109.37 | 113.24 | 114.47 |
| 2036 | 116.98 | 116.65 | 112.56 | 110.04 | 109.70 | 109.97 | 110.24 | 110.51 | 110.79 | 111.62 | 115.57 | 116.83 |
| 2037 | 119.72 | 119.38 | 115.21 | 112.64 | 112.29 | 112.57 | 112.84 | 113.12 | 113.41 | 114.26 | 118.29 | 119.57 |
| 2038 | 122.36 | 122.01 | 117.76 | 115.14 | 114.79 | 115.08 | 115.35 | 115.63 | 115.93 | 116.79 | 120.90 | 122.21 |
| 2039 | 124.88 | 124.52 | 120.19 | 117.52 | 117.16 | 117.45 | 117.73 | 118.02 | 118.32 | 119.20 | 123.39 | 124.72 |
| 2040 | 127.74 | 127.37 | 122.95 | 120.23 | 119.86 | 120.16 | 120.45 | 120.74 | 121.04 | 121.94 | 126.22 | 127.57 |

## SCHEDULE 201 (Continued)

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

TABLE 1b
Avoided Costs
Standard Fixed Price Option for Base Load QF
Off-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 26.88 | 20.38 | 20.88 | 15.88 | 17.88 | 19.13 | 23.88 | 26.13 | 25.63 | 23.13 | 25.38 | 28.38 |
| 2016 | 27.06 | 25.99 | 23.32 | 18.54 | 16.65 | 13.43 | 23.13 | 27.74 | 25.51 | 27.30 | 27.97 | 30.11 |
| 2017 | 30.27 | 29.06 | 26.04 | 21.47 | 19.23 | 15.43 | 25.37 | 30.49 | 28.02 | 29.93 | 30.67 | 33.03 |
| 2018 | 32.60 | 31.29 | 28.03 | 22.20 | 19.89 | 15.96 | 27.80 | 33.43 | 30.71 | 32.89 | 33.71 | 36.32 |
| 2019 | 34.42 | 33.04 | 29.59 | 23.42 | 20.98 | 16.82 | 29.35 | 35.30 | 32.42 | 34.73 | 35.60 | 38.36 |
| 2020 | 36.91 | 35.42 | 31.72 | 25.08 | 22.46 | 17.99 | 31.45 | 37.85 | 34.75 | 37.24 | 36.17 | 41.14 |
| 2021 | 40.11 | 39.87 | 35.54 | 34.60 | 34.75 | 34.90 | 35.05 | 35.20 | 35.36 | 35.51 | 37.52 | 38.85 |
| 2022 | 40.59 | 40.76 | 39.42 | 37.47 | 37.25 | 37.32 | 37.48 | 37.65 | 37.82 | 38.46 | 41.19 | 42.33 |
| 2023 | 42.71 | 42.74 | 40.35 | 36.89 | 38.29 | 38.30 | 38.47 | 38.64 | 38.82 | 39.55 | 42.26 | 43.21 |
| 2024 | 44.36 | 43.81 | 42.10 | 40.35 | 39.55 | 39.21 | 39.38 | 39.55 | 39.73 | 40.99 | 43.26 | 44.22 |
| 2025 | 45.81 | 45.38 | 43.57 | 42.22 | 41.92 | 42.12 | 42.30 | 42.49 | 42.69 | 43.37 | 46.48 | 47.48 |
| 2026 | 51.27 | 51.49 | 50.74 | 49.14 | 48.90 | 49.14 | 49.36 | 49.60 | 49.84 | 50.64 | 53.95 | 54.59 |
| 2027 | 55.68 | 55.93 | 50.81 | 49.20 | 48.95 | 49.18 | 49.41 | 49.63 | 49.87 | 50.56 | 53.91 | 54.97 |
| 2028 | 55.52 | 55.77 | 51.12 | 49.52 | 49.26 | 49.50 | 49.72 | 49.95 | 50.19 | 50.90 | 54.41 | 55.48 |
| 2029 | 57.17 | 56.53 | 53.44 | 51.52 | 51.07 | 51.31 | 51.55 | 51.79 | 52.04 | 52.76 | 56.23 | 58.44 |
| 2030 | 58.61 | 58.26 | 53.70 | 51.85 | 51.57 | 51.81 | 52.05 | 52.29 | 52.54 | 53.28 | 56.80 | 60.13 |
| 2031 | 59.26 | 58.95 | 55.25 | 52.96 | 52.65 | 52.90 | 53.14 | 53.39 | 53.64 | 54.40 | 57.98 | 59.12 |
| 2032 | 60.42 | 60.11 | 56.33 | 54.00 | 53.68 | 53.94 | 54.18 | 54.43 | 54.69 | 55.46 | 59.12 | 60.28 |
| 2033 | 61.67 | 61.36 | 57.50 | 55.13 | 54.81 | 55.07 | 55.32 | 55.57 | 55.84 | 56.62 | 60.35 | 61.53 |
| 2034 | 62.85 | 62.53 | 58.60 | 56.18 | 55.85 | 56.12 | 56.37 | 56.63 | 56.90 | 57.70 | 61.50 | 62.71 |
| 2035 | 64.25 | 63.92 | 59.91 | 57.44 | 57.11 | 57.38 | 57.64 | 57.90 | 58.18 | 59.00 | 62.87 | 64.10 |
| 2036 | 65.80 | 65.47 | 61.38 | 58.88 | 58.52 | 58.80 | 59.06 | 59.33 | 59.61 | 60.44 | 64.40 | 65.65 |
| 2037 | 67.39 | 67.04 | 62.87 | 60.31 | 59.96 | 60.24 | 60.51 | 60.79 | 61.07 | 61.92 | 65.95 | 67.23 |
| 2038 | 69.02 | 68.67 | 64.42 | 61.80 | 61.44 | 61.73 | 62.01 | 62.29 | 62.58 | 63.45 | 67.56 | 68.88 |
| 2039 | 70.51 | 70.15 | 65.82 | 63.14 | 62.78 | 63.08 | 63.36 | 63.64 | 63.94 | 64.83 | 69.02 | 70.35 |
| 2040 | 72.31 | 71.95 | 67.53 | 64.81 | 64.44 | 64.74 | 65.02 | 65.32 | 65.62 | 66.52 | 70.79 | 72.15 |





## SCHEDULE 201 (Continued)

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

TABLE 2a
Avoided Costs
Standard Fixed Price Option for Wind QF
On-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 27.36 | 21.36 | 22.36 | 18.11 | 19.11 | 21.36 | 29.36 | 30.96 | 25.88 | 23.61 | 25.11 | 29.36 |
| 2016 | 27.59 | 26.17 | 23.09 | 21.67 | 20.97 | 19.22 | 28.06 | 32.42 | 28.38 | 27.13 | 28.13 | 30.59 |
| 2017 | 30.21 | 28.65 | 25.29 | 24.22 | 23.44 | 21.49 | 30.60 | 35.35 | 30.95 | 29.92 | 31.01 | 33.72 |
| 2018 | 32.47 | 30.81 | 27.20 | 25.54 | 24.72 | 22.68 | 33.02 | 38.12 | 33.39 | 31.93 | 33.10 | 35.98 |
| 2019 | 34.07 | 32.33 | 28.56 | 26.82 | 25.96 | 23.82 | 34.65 | 39.99 | 35.04 | 33.51 | 34.73 | 37.74 |
| 2020 | 36.21 | 34.36 | 30.37 | 28.53 | 27.62 | 25.35 | 36.82 | 42.47 | 37.23 | 35.61 | 36.91 | 40.10 |
| 2021 | 37.81 | 37.56 | 33.23 | 32.30 | 32.45 | 32.60 | 32.75 | 32.90 | 33.05 | 33.21 | 35.22 | 36.54 |
| 2022 | 38.24 | 38.42 | 37.06 | 35.12 | 34.90 | 34.98 | 35.14 | 35.30 | 35.47 | 36.11 | 38.85 | 39.98 |
| 2023 | 40.33 | 40.36 | 37.97 | 36.51 | 35.91 | 35.92 | 36.09 | 36.26 | 36.43 | 37.17 | 39.68 | 40.83 |
| 2024 | 41.92 | 41.37 | 39.66 | 37.92 | 37.11 | 36.77 | 36.94 | 37.12 | 37.30 | 38.56 | 40.62 | 41.79 |
| 2025 | 43.33 | 42.90 | 41.09 | 39.74 | 39.44 | 39.64 | 39.82 | 40.02 | 40.21 | 40.89 | 44.00 | 45.00 |
| 2026 | 48.74 | 48.96 | 48.21 | 46.61 | 46.37 | 46.61 | 46.83 | 47.07 | 47.31 | 48.11 | 51.42 | 52.06 |
| 2027 | 53.11 | 53.35 | 48.23 | 46.62 | 46.37 | 46.60 | 46.83 | 47.06 | 47.29 | 47.99 | 51.33 | 52.39 |
| 2028 | 52.90 | 53.14 | 48.49 | 46.89 | 46.63 | 46.87 | 47.10 | 47.32 | 47.56 | 48.27 | 51.78 | 52.85 |
| 2029 | 54.50 | 53.85 | 50.77 | 48.85 | 48.40 | 48.64 | 48.87 | 49.11 | 49.36 | 50.09 | 53.55 | 55.76 |
| 2030 | 55.88 | 55.53 | 50.97 | 49.12 | 48.83 | 49.08 | 49.32 | 49.56 | 49.81 | 50.55 | 54.07 | 57.40 |
| 2031 | 56.47 | 56.17 | 52.46 | 50.18 | 49.87 | 50.12 | 50.36 | 50.60 | 50.88 | 51.61 | 55.20 | 56.34 |
| 2032 | 57.57 | 57.26 | 53.48 | 51.15 | 50.84 | 51.09 | 51.34 | 51.59 | 51.85 | 52.62 | 56.27 | 57.43 |
| 2033 | 58.79 | 58.47 | 54.62 | 52.24 | 51.92 | 52.18 | 52.43 | 52.68 | 52.95 | 53.74 | 57.46 | 58.65 |
| 2034 | 59.91 | 59.59 | 55.66 | 53.24 | 52.91 | 53.18 | 53.43 | 53.69 | 53.96 | 54.76 | 58.56 | 59.77 |
| 2035 | 61.25 | 60.92 | 56.91 | 54.44 | 54.11 | 54.38 | 54.64 | 54.90 | 55.18 | 56.00 | 59.87 | 61.10 |
| 2036 | 62.73 | 62.40 | 58.31 | 55.79 | 55.45 | 55.72 | 55.99 | 56.26 | 56.54 | 57.37 | 61.32 | 62.58 |
| 2037 | 64.26 | 63.92 | 59.75 | 57.18 | 56.83 | 57.12 | 57.39 | 57.66 | 57.95 | 58.80 | 62.83 | 64.11 |
| 2038 | 65.84 | 65.49 | 61.24 | 58.62 | 58.26 | 58.55 | 58.82 | 59.11 | 59.40 | 60.27 | 64.37 | 65.68 |
| 2039 | 67.26 | 66.91 | 62.57 | 59.90 | 59.54 | 59.84 | 60.12 | 60.40 | 60.70 | 61.58 | 65.77 | 67.11 |
| 2040 | 69.00 | 68.64 | 64.22 | 61.50 | 61.13 | 61.43 | 61.71 | 62.01 | 62.31 | 63.21 | 67.49 | 68.84 |

## SCHEDULE 201 (Continued)

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

TABLE 2b
Avoided Costs
Standard Fixed Price Option for Wind QF
Off-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 23.11 | 16.61 | 17.11 | 12.11 | 14.11 | 15.36 | 20.11 | 22.36 | 21.86 | 19.36 | 21.61 | 24.61 |
| 2016 | 23.22 | 22.15 | 19.48 | 14.70 | 12.81 | 9.59 | 19.29 | 23.90 | 21.67 | 23.46 | 24.13 | 26.27 |
| 2017 | 26.36 | 25.15 | 22.13 | 17.56 | 15.32 | 11.52 | 21.46 | 26.58 | 24.11 | 26.02 | 26.76 | 29.12 |
| 2018 | 28.61 | 27.30 | 24.04 | 18.21 | 15.90 | 11.97 | 23.81 | 29.44 | 26.72 | 28.90 | 29.72 | 32.33 |
| 2019 | 30.35 | 28.97 | 25.52 | 19.35 | 16.91 | 12.75 | 25.28 | 31.23 | 28.35 | 30.66 | 31.53 | 34.29 |
| 2020 | 32.76 | 31.27 | 27.57 | 20.93 | 18.31 | 13.84 | 27.30 | 33.70 | 30.60 | 33.09 | 34.02 | 36.99 |
| 2021 | 35.88 | 35.64 | 31.31 | 30.37 | 30.52 | 30.67 | 30.82 | 30.97 | 31.13 | 31.28 | 33.29 | 34.62 |
| 2022 | 36.28 | 36.45 | 35.11 | 33.16 | 32.94 | 33.01 | 33.17 | 33.34 | 33.51 | 34.15 | 36.88 | 38.02 |
| 2023 | 38.32 | 38.35 | 35.96 | 34.50 | 33.90 | 33.91 | 34.06 | 34.25 | 34.43 | 35.16 | 37.87 | 38.62 |
| 2024 | 39.89 | 39.34 | 37.63 | 35.68 | 35.08 | 34.74 | 34.91 | 35.08 | 35.26 | 36.52 | 38.79 | 39.75 |
| 2025 | 41.25 | 40.82 | 39.01 | 37.66 | 37.36 | 37.56 | 37.74 | 37.93 | 38.13 | 38.81 | 41.92 | 42.92 |
| 2026 | 46.62 | 46.84 | 46.09 | 44.49 | 44.25 | 44.49 | 44.71 | 44.95 | 45.19 | 45.09 | 49.30 | 49.94 |
| 2027 | 50.94 | 51.19 | 46.07 | 44.45 | 44.21 | 44.44 | 44.67 | 44.89 | 45.13 | 45.82 | 49.17 | 50.23 |
| 2028 | 50.69 | 50.94 | 46.29 | 44.69 | 44.43 | 44.67 | 44.89 | 45.12 | 45.36 | 46.07 | 49.58 | 50.65 |
| 2029 | 52.25 | 51.61 | 48.52 | 46.60 | 46.15 | 46.39 | 46.63 | 46.87 | 47.12 | 47.84 | 51.31 | 53.52 |
| 2030 | 53.59 | 53.24 | 48.68 | 46.83 | 46.55 | 46.79 | 47.03 | 47.27 | 47.52 | 48.26 | 51.78 | 55.11 |
| 2031 | 54.14 | 53.83 | 50.13 | 47.64 | 47.53 | 47.78 | 48.02 | 48.27 | 48.52 | 49.28 | 52.86 | 54.00 |
| 2032 | 55.21 | 54.90 | 51.12 | 48.79 | 48.47 | 48.73 | 48.97 | 49.22 | 49.48 | 50.25 | 53.91 | 55.07 |
| 2033 | 56.36 | 56.05 | 52.19 | 49.82 | 49.50 | 49.76 | 50.01 | 50.26 | 50.53 | 51.31 | 55.04 | 56.22 |
| 2034 | 57.43 | 57.11 | 53.18 | 50.76 | 50.43 | 50.70 | 50.95 | 51.21 | 51.48 | 52.28 | 56.08 | 57.29 |
| 2035 | 58.73 | 58.40 | 54.39 | 51.92 | 51.59 | 51.86 | 52.12 | 52.38 | 52.66 | 53.48 | 57.35 | 58.58 |
| 2036 | 60.17 | 59.84 | 55.75 | 53.23 | 52.89 | 53.17 | 53.43 | 53.70 | 53.98 | 54.81 | 58.77 | 60.02 |
| 2037 | 61.65 | 61.30 | 57.13 | 54.57 | 54.22 | 54.50 | 54.77 | 55.05 | 55.33 | 56.18 | 60.21 | 61.49 |
| 2038 | 63.17 | 62.82 | 58.57 | 55.95 | 55.59 | 55.88 | 56.16 | 56.44 | 56.73 | 57.60 | 61.71 | 63.01 |
| 2039 | 64.55 | 64.19 | 59.86 | 57.18 | 56.82 | 57.12 | 57.40 | 57.68 | 57.98 | 58.87 | 63.06 | 64.39 |
| 2040 | 66.23 | 65.87 | 61.45 | 58.73 | 58.36 | 58.66 | 58.94 | 59.24 | 59.54 | 60.44 | 64.71 | 66.07 |





## SCHEDULE 201 (Continued)

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

TABLE 3a
Avoided Costs
Standard Fixed Price Option for Solar QF
On-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 31.13 | 25.13 | 26.13 | 21.88 | 22.88 | 25.13 | 33.13 | 34.73 | 29.63 | 27.38 | 28.88 | 33.13 |
| 2016 | 31.43 | 30.01 | 26.93 | 25.51 | 24.81 | 23.06 | 31.90 | 36.26 | 32.22 | 30.97 | 31.97 | 34.43 |
| 2017 | 34.12 | 32.56 | 29.20 | 28.13 | 27.35 | 25.40 | 34.51 | 39.26 | 34.86 | 33.83 | 34.92 | 37.63 |
| 2018 | 36.46 | 34.80 | 31.19 | 29.53 | 28.71 | 26.67 | 37.01 | 42.11 | 37.38 | 35.92 | 37.09 | 39.97 |
| 2019 | 38.14 | 36.40 | 32.63 | 30.89 | 30.03 | 27.89 | 38.72 | 44.06 | 39.11 | 37.56 | 38.80 | 41.81 |
| 2020 | 40.36 | 38.51 | 34.52 | 32.68 | 31.77 | 29.50 | 40.97 | 46.62 | 41.38 | 39.76 | 41.06 | 44.25 |
| 2021 | 42.04 | 41.79 | 37.46 | 36.53 | 36.68 | 36.83 | 36.98 | 37.13 | 37.28 | 37.44 | 39.45 | 40.77 |
| 2022 | 42.55 | 42.73 | 41.39 | 39.43 | 39.21 | 39.29 | 39.45 | 39.61 | 39.78 | 40.42 | 43.16 | 44.29 |
| 2023 | 44.72 | 44.75 | 42.36 | 40.90 | 40.30 | 40.31 | 40.46 | 40.65 | 40.82 | 41.56 | 44.27 | 45.22 |
| 2024 | 46.39 | 45.84 | 44.13 | 42.39 | 41.58 | 41.24 | 41.41 | 41.59 | 41.77 | 43.03 | 45.29 | 46.26 |
| 2025 | 47.89 | 47.46 | 45.65 | 44.30 | 44.00 | 44.20 | 44.38 | 44.58 | 44.77 | 45.45 | 48.56 | 49.56 |
| 2026 | 53.39 | 53.61 | 52.86 | 51.26 | 51.02 | 51.26 | 51.48 | 51.72 | 51.96 | 52.76 | 56.07 | 56.71 |
| 2027 | 57.85 | 58.09 | 52.97 | 51.36 | 51.11 | 51.34 | 51.57 | 51.80 | 52.03 | 52.73 | 56.07 | 57.13 |
| 2028 | 57.73 | 57.97 | 53.32 | 51.72 | 51.46 | 51.70 | 51.93 | 52.15 | 52.39 | 53.10 | 56.61 | 57.68 |
| 2029 | 59.42 | 58.77 | 55.69 | 53.77 | 53.32 | 53.56 | 53.79 | 54.03 | 54.28 | 55.01 | 58.47 | 60.68 |
| 2030 | 60.90 | 60.55 | 55.99 | 54.14 | 53.85 | 54.10 | 54.34 | 54.58 | 54.83 | 55.57 | 59.09 | 62.42 |
| 2031 | 61.59 | 61.29 | 57.58 | 55.30 | 54.99 | 55.24 | 55.48 | 55.72 | 55.98 | 56.73 | 60.32 | 61.46 |
| 2032 | 62.78 | 62.47 | 58.69 | 56.36 | 56.05 | 56.30 | 56.55 | 56.80 | 57.06 | 57.83 | 61.48 | 62.64 |
| 2033 | 64.10 | 63.78 | 59.93 | 57.55 | 57.23 | 57.49 | 57.74 | 57.99 | 58.26 | 59.05 | 62.77 | 63.96 |
| 2034 | 65.33 | 65.01 | 61.06 | 58.66 | 58.33 | 58.60 | 58.85 | 59.11 | 59.38 | 60.18 | 63.98 | 65.19 |
| 2035 | 66.77 | 66.44 | 62.43 | 59.96 | 59.63 | 59.90 | 60.16 | 60.42 | 60.70 | 61.52 | 65.39 | 66.62 |
| 2036 | 68.36 | 68.03 | 63.94 | 61.42 | 61.08 | 61.35 | 61.62 | 61.89 | 62.17 | 63.00 | 66.95 | 68.21 |
| 2037 | 70.00 | 69.66 | 65.49 | 62.92 | 62.57 | 62.86 | 63.13 | 63.40 | 63.69 | 64.54 | 68.57 | 69.85 |
| 2038 | 71.69 | 71.34 | 67.09 | 64.47 | 64.11 | 64.40 | 64.67 | 64.96 | 65.25 | 66.12 | 70.22 | 71.53 |
| 2039 | 73.22 | 72.87 | 68.53 | 65.86 | 65.50 | 65.80 | 66.08 | 66.38 | 66.66 | 67.54 | 71.73 | 73.07 |
| 2040 | 75.08 | 74.72 | 70.30 | 67.58 | 67.21 | 67.51 | 67.79 | 68.09 | 68.39 | 69.29 | 73.57 | 74.92 |

## SCHEDULE 201 (Continued)

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

| TABLE 3b<br>Avoided Costs<br>Standard Fixed Price Option for Solar QF<br>Off-Peak Forecast ($/MWH) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 2015 | 26.88 | 20.38 | 20.88 | 15.88 | 17.88 | 19.13 | 23.88 | 26.13 | 25.63 | 23.13 | 25.38 | 28.38 |
| 2016 | 27.06 | 25.99 | 23.32 | 18.54 | 16.65 | 13.43 | 23.13 | 27.74 | 25.51 | 27.30 | 27.97 | 30.11 |
| 2017 | 30.27 | 29.06 | 26.04 | 21.47 | 19.23 | 15.43 | 25.37 | 30.49 | 28.02 | 29.93 | 30.67 | 33.03 |
| 2018 | 32.60 | 31.29 | 28.03 | 22.20 | 19.89 | 15.96 | 27.80 | 33.43 | 30.71 | 32.89 | 33.71 | 36.32 |
| 2019 | 34.42 | 33.04 | 29.59 | 23.42 | 20.98 | 16.82 | 29.35 | 35.30 | 32.42 | 34.73 | 35.60 | 38.36 |
| 2020 | 36.91 | 35.42 | 31.72 | 25.08 | 22.46 | 17.99 | 31.45 | 37.85 | 34.75 | 37.24 | 38.17 | 41.14 |
| 2021 | 40.11 | 39.87 | 35.54 | 34.60 | 34.75 | 34.90 | 35.05 | 35.20 | 35.36 | 35.51 | 37.52 | 38.85 |
| 2022 | 40.59 | 40.76 | 39.42 | 37.47 | 37.25 | 37.32 | 37.48 | 37.65 | 37.82 | 38.46 | 41.19 | 42.33 |
| 2023 | 42.71 | 42.74 | 40.35 | 38.69 | 38.29 | 38.30 | 38.47 | 38.64 | 38.82 | 39.55 | 42.26 | 43.21 |
| 2024 | 44.36 | 43.81 | 42.10 | 40.35 | 39.55 | 39.21 | 39.38 | 39.55 | 39.73 | 40.99 | 43.26 | 44.22 |
| 2025 | 45.81 | 45.38 | 43.57 | 42.22 | 41.92 | 42.12 | 42.30 | 42.49 | 42.69 | 43.37 | 46.48 | 47.48 |
| 2026 | 51.27 | 51.49 | 50.74 | 49.14 | 48.90 | 49.14 | 49.36 | 49.60 | 49.84 | 50.64 | 53.95 | 54.59 |
| 2027 | 55.68 | 55.93 | 50.81 | 49.20 | 48.95 | 49.18 | 49.41 | 49.63 | 49.87 | 50.56 | 53.91 | 54.97 |
| 2028 | 55.52 | 55.77 | 51.12 | 49.52 | 49.26 | 49.50 | 49.72 | 49.95 | 50.19 | 50.90 | 54.41 | 55.48 |
| 2029 | 57.17 | 56.53 | 53.44 | 51.52 | 51.07 | 51.31 | 51.55 | 51.79 | 52.04 | 52.76 | 56.23 | 58.44 |
| 2030 | 58.61 | 58.26 | 53.70 | 51.85 | 51.57 | 51.81 | 52.05 | 52.29 | 52.54 | 53.28 | 56.80 | 60.13 |
| 2031 | 59.26 | 58.95 | 55.25 | 52.96 | 52.65 | 52.90 | 53.14 | 53.39 | 53.64 | 54.40 | 57.98 | 59.12 |
| 2032 | 60.42 | 60.11 | 56.33 | 54.00 | 53.68 | 53.94 | 54.18 | 54.43 | 54.69 | 55.46 | 59.12 | 60.28 |
| 2033 | 61.67 | 61.36 | 57.50 | 55.13 | 54.81 | 55.07 | 55.32 | 55.57 | 55.84 | 56.62 | 60.35 | 61.53 |
| 2034 | 62.85 | 62.53 | 58.60 | 56.18 | 55.85 | 56.12 | 56.37 | 56.63 | 56.90 | 57.70 | 61.50 | 62.71 |
| 2035 | 64.25 | 63.92 | 59.91 | 57.44 | 57.11 | 57.38 | 57.64 | 57.90 | 58.18 | 59.00 | 62.87 | 64.10 |
| 2036 | 65.80 | 65.47 | 61.38 | 58.86 | 58.52 | 58.80 | 59.06 | 59.33 | 59.61 | 60.44 | 64.40 | 65.65 |
| 2037 | 67.39 | 87.04 | 62.87 | 60.31 | 59.96 | 60.24 | 60.51 | 60.79 | 61.07 | 61.92 | 65.95 | 67.23 |
| 2038 | 69.02 | 68.67 | 64.42 | 61.80 | 61.44 | 61.73 | 62.01 | 62.29 | 62.58 | 63.45 | 67.56 | 68.86 |
| 2039 | 70.51 | 70.15 | 65.82 | 63.14 | 62.78 | 63.08 | 63.36 | 63.64 | 63.94 | 64.83 | 69.02 | 70.35 |
| 2040 | 72.31 | 71.95 | 67.53 | 64.81 | 64.44 | 64.74 | 65.02 | 65.32 | 65.62 | 66.52 | 70.79 | 72.15 |





## SCHEDULE 201 (Continued)

PRICING OPTIONS FOR STANDARD PPA (Continued)

### 2) Renewable Fixed Price Option

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

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

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

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

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

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

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

## SCHEDULE 201 (Continued)

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

TABLE 4a
Renewable Avoided Costs
Renewable Fixed Price Option for Base Load QF
On-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 31.13 | 25.13 | 26.13 | 21.88 | 22.88 | 25.13 | 33.13 | 34.73 | 29.63 | 27.38 | 28.88 | 33.13 |
| 2016 | 31.58 | 30.16 | 27.08 | 25.66 | 24.96 | 23.21 | 32.05 | 36.41 | 32.37 | 31.12 | 32.12 | 34.58 |
| 2017 | 34.27 | 32.71 | 29.35 | 28.28 | 27.50 | 25.55 | 34.66 | 39.41 | 35.01 | 33.98 | 35.07 | 37.78 |
| 2018 | 36.61 | 34.95 | 31.34 | 29.68 | 28.86 | 26.82 | 37.16 | 42.26 | 37.53 | 36.07 | 37.24 | 40.12 |
| 2019 | 38.30 | 36.56 | 32.79 | 31.05 | 30.19 | 28.05 | 38.68 | 44.22 | 39.27 | 37.74 | 38.96 | 41.97 |
| 2020 | 130.42 | 130.40 | 129.50 | 130.04 | 133.82 | 132.76 | 132.39 | 132.24 | 130.72 | 129.58 | 130.57 | 129.37 |
| 2021 | 133.36 | 133.64 | 131.86 | 133.13 | 136.49 | 135.59 | 134.91 | 135.52 | 133.73 | 132.54 | 134.08 | 132.51 |
| 2022 | 136.24 | 136.10 | 133.85 | 135.90 | 139.41 | 138.20 | 137.67 | 137.62 | 136.32 | 135.14 | 136.83 | 135.12 |
| 2023 | 139.39 | 138.88 | 136.54 | 138.99 | 141.88 | 141.01 | 140.60 | 140.17 | 139.18 | 137.61 | 139.83 | 138.53 |
| 2024 | 141.20 | 141.36 | 139.07 | 141.45 | 144.67 | 143.47 | 143.33 | 143.02 | 142.81 | 139.99 | 141.17 | 141.32 |
| 2025 | 144.44 | 144.83 | 142.24 | 145.02 | 149.06 | 147.69 | 146.57 | 146.72 | 145.76 | 143.11 | 144.48 | 144.07 |
| 2026 | 148.08 | 147.69 | 145.97 | 148.54 | 153.80 | 149.69 | 149.69 | 150.17 | 149.84 | 146.23 | 146.39 | 147.27 |
| 2027 | 150.98 | 150.46 | 148.51 | 151.01 | 156.07 | 152.64 | 152.20 | 153.90 | 152.54 | 149.20 | 150.73 | 150.17 |
| 2028 | 153.78 | 152.55 | 150.16 | 154.12 | 160.66 | 154.93 | 155.77 | 155.78 | 154.75 | 152.36 | 153.65 | 152.73 |
| 2029 | 157.02 | 156.74 | 153.60 | 157.59 | 169.40 | 159.30 | 159.39 | 159.39 | 159.45 | 155.48 | 156.44 | 156.31 |
| 2030 | 160.28 | 159.94 | 157.24 | 160.66 | 173.65 | 164.43 | 161.89 | 161.75 | 163.38 | 156.51 | 159.18 | 159.23 |
| 2031 | 163.23 | 162.64 | 160.72 | 164.67 | 177.15 | 169.11 | 164.90 | 166.01 | 166.26 | 161.75 | 163.06 | 162.54 |
| 2032 | 165.75 | 165.16 | 163.21 | 167.22 | 179.91 | 171.73 | 167.46 | 166.59 | 168.84 | 164.26 | 165.59 | 165.06 |
| 2033 | 169.59 | 168.98 | 166.98 | 171.09 | 184.06 | 175.70 | 171.33 | 172.46 | 172.74 | 168.06 | 169.41 | 168.88 |
| 2034 | 173.01 | 172.39 | 170.36 | 174.55 | 187.76 | 179.24 | 174.79 | 175.97 | 176.23 | 171.46 | 172.84 | 172.29 |
| 2035 | 176.35 | 175.72 | 173.65 | 177.91 | 191.39 | 182.70 | 178.18 | 179.36 | 179.63 | 174.76 | 176.17 | 175.62 |
| 2036 | 179.40 | 178.76 | 176.65 | 180.99 | 194.89 | 185.85 | 181.24 | 182.46 | 182.74 | 177.79 | 179.22 | 178.65 |
| 2037 | 183.23 | 182.57 | 180.41 | 184.85 | 198.85 | 189.82 | 185.10 | 186.35 | 186.63 | 181.58 | 183.04 | 182.46 |
| 2038 | 186.76 | 186.09 | 183.90 | 188.42 | 202.69 | 193.48 | 188.68 | 189.95 | 190.23 | 185.08 | 186.57 | 185.98 |
| 2039 | 190.37 | 189.68 | 187.44 | 192.05 | 206.60 | 197.22 | 192.32 | 193.61 | 193.91 | 188.65 | 190.17 | 189.57 |
| 2040 | 193.66 | 192.96 | 190.89 | 195.37 | 210.16 | 200.62 | 195.64 | 196.96 | 197.26 | 191.92 | 193.46 | 192.85 |





## SCHEDULE 201 (Continued)

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

TABLE 4b
Renewable Avoided Costs
Renewable Fixed Price Option for Base Load QF
Off-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 26.88 | 20.38 | 20.88 | 15.88 | 17.88 | 19.13 | 23.88 | 26.13 | 25.63 | 23.13 | 25.38 | 28.38 |
| 2016 | 27.21 | 26.14 | 23.47 | 18.69 | 16.80 | 13.58 | 23.28 | 27.89 | 25.66 | 27.45 | 28.12 | 30.26 |
| 2017 | 30.42 | 29.21 | 26.19 | 21.62 | 19.36 | 15.58 | 25.52 | 30.64 | 28.17 | 30.08 | 30.82 | 33.18 |
| 2018 | 32.75 | 31.44 | 28.16 | 22.35 | 20.04 | 16.11 | 27.95 | 33.58 | 30.86 | 33.04 | 33.86 | 36.47 |
| 2019 | 34.58 | 33.20 | 29.75 | 23.58 | 21.14 | 16.98 | 29.51 | 35.46 | 32.58 | 34.89 | 35.76 | 38.52 |
| 2020 | 74.05 | 74.35 | 76.18 | 74.70 | 70.70 | 70.96 | 71.32 | 72.70 | 73.76 | 75.21 | 74.98 | 75.50 |
| 2021 | 76.61 | 75.69 | 77.70 | 76.08 | 72.65 | 72.71 | 73.48 | 73.88 | 75.25 | 77.66 | 74.78 | 76.80 |
| 2022 | 77.70 | 77.31 | 79.96 | 77.27 | 73.68 | 74.12 | 75.90 | 74.74 | 76.69 | 79.10 | 76.00 | 78.21 |
| 2023 | 78.70 | 78.76 | 81.53 | 79.38 | 74.14 | 75.53 | 77.17 | 76.51 | 78.04 | 80.71 | 77.14 | 79.80 |
| 2024 | 79.35 | 79.42 | 83.14 | 79.16 | 74.55 | 77.78 | 76.40 | 76.83 | 78.61 | 81.03 | 79.55 | 80.29 |
| 2025 | 80.96 | 80.84 | 84.88 | 80.33 | 74.54 | 78.20 | 78.02 | 79.19 | 79.32 | 82.61 | 82.21 | 81.48 |
| 2026 | 81.35 | 82.42 | 85.28 | 80.89 | 75.34 | 79.31 | 79.11 | 79.94 | 79.12 | 83.91 | 82.41 | 82.47 |
| 2027 | 84.14 | 84.11 | 86.28 | 82.99 | 75.15 | 80.77 | 81.16 | 80.43 | 80.90 | 86.39 | 83.38 | 83.99 |
| 2028 | 85.29 | 86.01 | 86.97 | 85.07 | 74.43 | 82.57 | 82.76 | 81.19 | 82.63 | 87.06 | 84.33 | 86.62 |
| 2029 | 85.87 | 86.84 | 90.61 | 86.72 | 68.73 | 82.93 | 84.21 | 82.59 | 84.39 | 88.00 | 86.85 | 88.12 |
| 2030 | 87.21 | 88.26 | 92.46 | 86.89 | 68.43 | 83.64 | 84.98 | 85.17 | 84.95 | 89.66 | 88.91 | 89.94 |
| 2031 | 89.10 | 90.50 | 93.69 | 87.32 | 69.81 | 83.38 | 86.78 | 86.97 | 85.14 | 91.14 | 90.93 | 90.04 |
| 2032 | 90.57 | 92.00 | 95.23 | 88.76 | 70.97 | 84.75 | 88.21 | 88.41 | 86.54 | 92.64 | 92.44 | 91.53 |
| 2033 | 92.57 | 94.03 | 97.34 | 90.72 | 72.53 | 86.63 | 90.16 | 90.36 | 88.46 | 94.69 | 94.46 | 93.55 |
| 2034 | 94.36 | 95.84 | 99.22 | 92.47 | 73.93 | 88.30 | 91.90 | 92.10 | 90.16 | 96.52 | 96.30 | 95.36 |
| 2035 | 96.18 | 97.69 | 101.13 | 94.25 | 75.36 | 90.00 | 93.68 | 93.88 | 91.90 | 98.38 | 98.16 | 97.20 |
| 2036 | 97.77 | 99.31 | 102.80 | 95.81 | 76.61 | 91.49 | 95.22 | 95.43 | 93.42 | 100.00 | 99.78 | 98.80 |
| 2037 | 99.93 | 101.50 | 105.07 | 97.93 | 78.30 | 93.51 | 97.33 | 97.54 | 95.49 | 102.21 | 101.99 | 100.99 |
| 2038 | 101.86 | 103.46 | 107.10 | 99.82 | 79.81 | 95.31 | 99.20 | 99.42 | 97.33 | 104.19 | 103.95 | 102.93 |
| 2039 | 103.82 | 105.46 | 109.17 | 101.74 | 81.35 | 97.15 | 101.12 | 101.34 | 99.21 | 106.20 | 105.96 | 104.92 |
| 2040 | 105.54 | 107.20 | 110.97 | 103.42 | 82.69 | 98.76 | 102.79 | 103.02 | 100.85 | 107.95 | 107.71 | 106.65 |

## SCHEDULE 201 (Continued)

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

TABLE 5a
Renewable Avoided Costs
Renewable Fixed Price Option for Wind QF
On-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 27.36 | 21.36 | 22.36 | 18.11 | 19.11 | 21.36 | 29.36 | 30.96 | 25.86 | 23.61 | 25.11 | 29.36 |
| 2016 | 27.74 | 26.32 | 23.24 | 21.82 | 21.12 | 19.37 | 28.21 | 32.57 | 28.53 | 27.28 | 28.28 | 30.74 |
| 2017 | 30.36 | 28.80 | 25.44 | 24.37 | 23.59 | 21.64 | 30.75 | 35.50 | 31.10 | 30.07 | 31.16 | 33.87 |
| 2018 | 32.62 | 30.96 | 27.35 | 25.69 | 24.87 | 22.83 | 33.17 | 38.27 | 33.54 | 32.08 | 33.25 | 36.13 |
| 2019 | 34.23 | 32.49 | 28.72 | 26.98 | 26.12 | 23.98 | 34.81 | 40.15 | 35.20 | 33.67 | 34.89 | 37.90 |
| 2020 | 89.69 | 89.67 | 88.77 | 89.31 | 93.09 | 92.03 | 91.66 | 91.52 | 90.00 | 88.85 | 89.84 | 88.64 |
| 2021 | 91.73 | 92.00 | 90.23 | 91.50 | 94.85 | 93.96 | 93.26 | 93.88 | 92.10 | 90.91 | 92.44 | 90.88 |
| 2022 | 93.81 | 93.66 | 91.42 | 93.47 | 96.98 | 95.77 | 95.23 | 95.19 | 93.89 | 92.71 | 94.39 | 92.68 |
| 2023 | 96.01 | 95.50 | 93.17 | 95.61 | 98.50 | 97.64 | 97.23 | 96.79 | 95.80 | 94.43 | 96.45 | 95.15 |
| 2024 | 97.25 | 97.43 | 95.12 | 97.50 | 100.71 | 99.51 | 99.38 | 99.07 | 98.85 | 96.03 | 97.21 | 97.37 |
| 2025 | 99.51 | 99.69 | 97.31 | 100.08 | 104.15 | 102.76 | 101.63 | 101.79 | 100.82 | 98.17 | 99.55 | 99.13 |
| 2026 | 102.27 | 101.88 | 100.16 | 102.74 | 108.00 | 103.89 | 103.89 | 104.37 | 104.03 | 100.42 | 102.58 | 101.47 |
| 2027 | 104.29 | 103.77 | 101.82 | 104.32 | 111.38 | 105.95 | 105.51 | 107.22 | 105.85 | 102.51 | 104.04 | 103.48 |
| 2028 | 106.19 | 104.96 | 102.57 | 106.53 | 113.07 | 107.34 | 108.16 | 108.19 | 107.16 | 104.79 | 106.06 | 105.14 |
| 2029 | 108.51 | 108.23 | 105.09 | 109.08 | 120.90 | 110.80 | 110.69 | 110.89 | 110.94 | 106.98 | 107.94 | 107.81 |
| 2030 | 110.64 | 110.49 | 107.80 | 111.21 | 124.40 | 114.99 | 112.45 | 112.31 | 113.94 | 109.07 | 109.73 | 109.79 |
| 2031 | 112.82 | 112.24 | 110.32 | 114.27 | 126.75 | 118.70 | 114.50 | 115.61 | 115.86 | 111.35 | 112.66 | 112.14 |
| 2032 | 114.68 | 114.08 | 112.13 | 116.15 | 128.84 | 120.66 | 116.38 | 117.51 | 117.77 | 113.18 | 114.51 | 113.99 |
| 2033 | 117.23 | 116.62 | 114.62 | 118.73 | 131.70 | 123.34 | 118.97 | 120.13 | 120.39 | 115.70 | 117.06 | 116.52 |
| 2034 | 119.48 | 118.86 | 116.83 | 121.02 | 134.24 | 125.71 | 121.26 | 122.44 | 122.70 | 117.93 | 119.31 | 118.76 |
| 2035 | 121.80 | 121.16 | 119.09 | 123.36 | 136.83 | 128.14 | 123.60 | 124.80 | 125.07 | 120.21 | 121.62 | 121.06 |
| 2036 | 123.79 | 123.14 | 121.04 | 125.37 | 139.07 | 130.24 | 125.63 | 126.85 | 127.12 | 122.17 | 123.61 | 123.04 |
| 2037 | 126.54 | 125.88 | 123.72 | 128.16 | 142.16 | 133.13 | 128.42 | 129.66 | 129.94 | 124.89 | 126.35 | 125.77 |
| 2038 | 128.98 | 128.31 | 126.11 | 130.63 | 144.90 | 135.70 | 130.89 | 132.17 | 132.45 | 127.30 | 128.79 | 128.20 |
| 2039 | 131.47 | 130.79 | 128.55 | 133.16 | 147.70 | 138.32 | 133.42 | 134.72 | 135.01 | 129.76 | 131.28 | 130.68 |
| 2040 | 133.62 | 132.93 | 130.65 | 135.33 | 150.12 | 140.59 | 135.61 | 136.92 | 137.22 | 131.88 | 133.43 | 132.81 |





## SCHEDULE 201 (Continued)

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

TABLE 5b
Renewable Avoided Costs
Renewable Fixed Price Option for Wind QF
Off-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 23.11 | 16.61 | 17.11 | 12.11 | 14.11 | 15.36 | 20.11 | 22.36 | 21.86 | 19.36 | 21.61 | 24.61 |
| 2016 | 23.37 | 22.30 | 19.63 | 14.85 | 12.96 | 9.74 | 19.44 | 24.05 | 21.82 | 23.61 | 24.28 | 26.42 |
| 2017 | 26.51 | 25.30 | 22.28 | 17.71 | 15.47 | 11.67 | 21.61 | 26.73 | 24.26 | 26.17 | 26.91 | 29.27 |
| 2018 | 28.76 | 27.45 | 24.19 | 18.36 | 16.05 | 12.12 | 23.96 | 29.59 | 26.87 | 29.05 | 29.87 | 32.48 |
| 2019 | 30.51 | 29.13 | 25.68 | 19.51 | 17.07 | 12.91 | 25.44 | 31.39 | 28.51 | 30.82 | 31.69 | 34.45 |
| 2020 | 69.90 | 70.20 | 72.03 | 70.55 | 66.55 | 66.83 | 67.17 | 68.55 | 69.61 | 71.06 | 70.83 | 71.35 |
| 2021 | 72.38 | 71.46 | 73.47 | 71.85 | 68.42 | 66.48 | 69.25 | 69.65 | 71.02 | 73.43 | 70.55 | 72.57 |
| 2022 | 73.39 | 73.00 | 75.65 | 72.96 | 69.37 | 69.81 | 71.59 | 70.43 | 72.38 | 74.79 | 71.69 | 73.90 |
| 2023 | 74.31 | 74.37 | 77.14 | 74.99 | 69.75 | 71.14 | 72.78 | 72.12 | 73.65 | 76.32 | 72.75 | 75.41 |
| 2024 | 74.88 | 74.95 | 78.67 | 74.69 | 70.08 | 73.31 | 71.93 | 72.36 | 74.14 | 76.56 | 75.08 | 75.82 |
| 2025 | 76.40 | 76.38 | 80.32 | 75.77 | 69.98 | 73.64 | 73.46 | 74.63 | 74.76 | 78.25 | 77.65 | 76.92 |
| 2026 | 76.70 | 77.77 | 80.63 | 76.24 | 70.69 | 74.66 | 74.46 | 75.29 | 74.47 | 79.26 | 77.76 | 77.82 |
| 2027 | 79.40 | 79.37 | 81.54 | 78.25 | 70.41 | 76.03 | 76.42 | 75.69 | 76.16 | 81.65 | 78.64 | 79.25 |
| 2028 | 80.46 | 81.18 | 84.14 | 80.24 | 69.60 | 77.74 | 77.93 | 76.36 | 78.00 | 82.23 | 79.50 | 81.79 |
| 2029 | 80.95 | 81.92 | 85.69 | 81.80 | 63.81 | 78.01 | 79.29 | 77.67 | 79.47 | 83.08 | 81.93 | 83.20 |
| 2030 | 82.19 | 83.26 | 87.44 | 81.87 | 63.41 | 78.62 | 79.96 | 80.15 | 79.93 | 84.64 | 83.89 | 84.92 |
| 2031 | 83.98 | 85.38 | 88.57 | 82.20 | 64.69 | 78.26 | 81.66 | 81.85 | 80.02 | 86.02 | 85.81 | 84.92 |
| 2032 | 85.36 | 86.79 | 90.02 | 83.55 | 65.76 | 79.54 | 83.00 | 83.20 | 81.33 | 87.43 | 87.23 | 86.32 |
| 2033 | 87.26 | 88.72 | 92.03 | 85.41 | 67.22 | 81.32 | 84.85 | 85.05 | 83.15 | 89.38 | 89.17 | 88.24 |
| 2034 | 88.94 | 90.42 | 93.80 | 87.05 | 68.51 | 82.88 | 86.48 | 86.68 | 84.74 | 91.10 | 90.66 | 89.94 |
| 2035 | 90.66 | 92.17 | 95.61 | 88.73 | 69.84 | 84.48 | 88.16 | 88.36 | 86.38 | 92.86 | 92.64 | 91.68 |
| 2036 | 92.14 | 93.68 | 97.17 | 90.18 | 70.98 | 85.86 | 89.59 | 89.80 | 87.79 | 94.37 | 94.15 | 93.17 |
| 2037 | 94.19 | 95.76 | 99.33 | 92.19 | 72.56 | 87.77 | 91.59 | 91.80 | 89.75 | 96.47 | 96.25 | 95.25 |
| 2038 | 96.01 | 97.61 | 101.25 | 93.97 | 73.96 | 89.46 | 93.35 | 93.57 | 91.48 | 98.34 | 98.10 | 97.08 |
| 2039 | 97.86 | 99.50 | 103.21 | 95.78 | 75.39 | 91.19 | 95.16 | 95.38 | 93.25 | 100.24 | 100.00 | 98.96 |
| 2040 | 99.46 | 101.12 | 104.89 | 97.34 | 76.61 | 92.68 | 96.71 | 96.94 | 94.77 | 101.87 | 101.63 | 100.57 |

## SCHEDULE 201 (Continued)

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

TABLE 6a
Renewable Avoided Costs
Renewable Fixed Price Option for Solar QF
On-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 31.13 | 25.13 | 26.13 | 21.88 | 22.88 | 25.13 | 33.13 | 34.73 | 29.63 | 27.38 | 28.88 | 33.13 |
| 2016 | 31.58 | 30.16 | 27.08 | 25.66 | 24.96 | 23.21 | 32.05 | 36.41 | 32.37 | 31.12 | 32.12 | 34.58 |
| 2017 | 34.27 | 32.71 | 29.35 | 28.28 | 27.50 | 25.55 | 34.66 | 39.41 | 35.01 | 33.98 | 35.07 | 37.78 |
| 2018 | 36.61 | 34.95 | 31.34 | 29.68 | 28.86 | 26.82 | 37.16 | 42.26 | 37.53 | 36.07 | 37.24 | 40.12 |
| 2019 | 38.30 | 36.56 | 32.79 | 31.05 | 30.19 | 28.05 | 38.88 | 44.22 | 39.27 | 37.74 | 38.96 | 41.97 |
| 2020 | 93.84 | 93.82 | 92.92 | 93.46 | 97.24 | 96.18 | 95.81 | 95.67 | 94.15 | 93.00 | 93.99 | 92.79 |
| 2021 | 95.96 | 96.23 | 94.46 | 95.73 | 99.08 | 98.19 | 97.51 | 98.11 | 96.33 | 95.14 | 96.67 | 95.11 |
| 2022 | 98.12 | 97.97 | 95.73 | 97.78 | 101.29 | 100.08 | 99.54 | 99.50 | 98.20 | 97.02 | 98.70 | 96.99 |
| 2023 | 100.40 | 99.89 | 97.56 | 100.00 | 102.89 | 102.03 | 101.62 | 101.18 | 100.19 | 98.82 | 100.84 | 99.54 |
| 2024 | 101.72 | 101.90 | 99.59 | 101.97 | 105.18 | 103.98 | 103.85 | 103.54 | 103.32 | 100.50 | 101.68 | 101.84 |
| 2025 | 104.07 | 104.45 | 101.87 | 104.64 | 108.71 | 107.32 | 106.19 | 106.35 | 105.38 | 102.73 | 104.11 | 103.69 |
| 2026 | 106.92 | 106.53 | 104.81 | 107.39 | 112.65 | 108.54 | 108.54 | 109.02 | 108.68 | 105.07 | 107.23 | 106.12 |
| 2027 | 109.03 | 108.51 | 106.56 | 109.06 | 116.12 | 110.69 | 110.25 | 111.96 | 110.59 | 107.25 | 108.78 | 108.22 |
| 2028 | 111.02 | 109.79 | 107.40 | 111.36 | 117.90 | 112.17 | 113.01 | 113.02 | 111.99 | 109.62 | 110.89 | 109.97 |
| 2029 | 113.43 | 113.15 | 110.01 | 114.00 | 125.82 | 115.72 | 115.81 | 115.81 | 115.86 | 111.90 | 112.86 | 112.73 |
| 2030 | 115.86 | 115.51 | 112.82 | 116.23 | 129.42 | 120.01 | 117.47 | 117.33 | 118.96 | 114.09 | 114.75 | 114.81 |
| 2031 | 117.94 | 117.36 | 115.44 | 119.39 | 131.87 | 123.82 | 119.62 | 120.73 | 120.98 | 116.47 | 117.78 | 117.26 |
| 2032 | 119.89 | 119.29 | 117.34 | 121.36 | 134.05 | 125.87 | 121.59 | 122.72 | 122.98 | 118.39 | 119.72 | 119.20 |
| 2033 | 122.54 | 121.93 | 119.93 | 124.04 | 137.01 | 128.65 | 124.28 | 125.44 | 125.70 | 121.01 | 122.37 | 121.83 |
| 2034 | 124.90 | 124.28 | 122.25 | 126.44 | 139.66 | 131.13 | 126.68 | 127.86 | 128.12 | 123.35 | 124.73 | 124.18 |
| 2035 | 127.32 | 126.68 | 124.61 | 128.88 | 142.35 | 133.66 | 129.12 | 130.32 | 130.59 | 125.73 | 127.14 | 126.58 |
| 2036 | 129.42 | 128.77 | 126.67 | 131.00 | 144.70 | 135.87 | 131.26 | 132.48 | 132.75 | 127.80 | 129.24 | 128.67 |
| 2037 | 132.28 | 131.62 | 129.46 | 133.90 | 147.90 | 138.87 | 134.16 | 135.40 | 135.68 | 130.63 | 132.09 | 131.51 |
| 2038 | 134.83 | 134.16 | 131.96 | 136.48 | 150.75 | 141.55 | 136.74 | 138.02 | 138.30 | 133.15 | 134.64 | 134.05 |
| 2039 | 137.43 | 136.75 | 134.51 | 139.12 | 153.66 | 144.28 | 139.38 | 140.68 | 140.97 | 135.72 | 137.24 | 136.64 |
| 2040 | 139.70 | 139.01 | 136.73 | 141.41 | 156.20 | 146.67 | 141.69 | 143.00 | 143.30 | 137.96 | 139.51 | 138.89 |





## SCHEDULE 201 (Continued)

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

TABLE 6b
Renewable Avoided Costs
Renewable Fixed Price Option for Solar QF
Off-Peak Forecast ($/MWH)

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 26.88 | 20.38 | 20.88 | 15.88 | 17.88 | 19.13 | 23.88 | 26.13 | 25.63 | 23.13 | 25.38 | 28.38 |
| 2016 | 27.21 | 26.14 | 23.47 | 18.69 | 16.80 | 13.58 | 23.28 | 27.89 | 25.66 | 27.45 | 28.12 | 30.26 |
| 2017 | 30.42 | 29.21 | 26.19 | 21.62 | 19.38 | 15.58 | 25.52 | 30.64 | 28.17 | 30.08 | 30.82 | 33.18 |
| 2018 | 32.75 | 31.44 | 28.18 | 22.35 | 20.04 | 16.11 | 27.95 | 33.58 | 30.86 | 33.04 | 33.86 | 36.47 |
| 2019 | 34.58 | 33.20 | 29.75 | 23.58 | 21.14 | 16.98 | 29.51 | 35.46 | 32.58 | 34.89 | 35.76 | 38.52 |
| 2020 | 74.05 | 74.35 | 76.18 | 74.70 | 70.70 | 70.98 | 71.32 | 72.70 | 73.76 | 75.21 | 74.98 | 75.50 |
| 2021 | 76.61 | 75.69 | 77.70 | 76.08 | 72.65 | 72.71 | 73.48 | 73.88 | 75.25 | 77.66 | 74.78 | 76.80 |
| 2022 | 77.70 | 77.31 | 79.96 | 77.27 | 73.68 | 74.12 | 75.90 | 74.74 | 76.69 | 79.10 | 76.00 | 78.21 |
| 2023 | 78.70 | 78.76 | 81.53 | 79.38 | 74.14 | 75.53 | 77.17 | 76.51 | 78.04 | 80.71 | 77.14 | 79.80 |
| 2024 | 79.35 | 79.42 | 83.14 | 79.16 | 74.55 | 77.78 | 76.40 | 76.83 | 78.61 | 81.03 | 79.55 | 80.29 |
| 2025 | 80.96 | 80.94 | 84.88 | 80.33 | 74.54 | 78.20 | 78.02 | 79.19 | 79.32 | 82.81 | 82.21 | 81.48 |
| 2026 | 81.35 | 82.42 | 85.28 | 80.89 | 75.34 | 79.31 | 79.11 | 79.94 | 79.12 | 83.91 | 82.41 | 82.47 |
| 2027 | 84.14 | 84.11 | 86.28 | 82.99 | 75.15 | 80.77 | 81.16 | 80.43 | 80.90 | 86.39 | 83.38 | 83.99 |
| 2028 | 85.29 | 86.01 | 88.97 | 85.07 | 74.43 | 82.57 | 82.76 | 81.19 | 82.83 | 87.06 | 84.33 | 86.62 |
| 2029 | 85.87 | 86.84 | 90.61 | 86.72 | 68.73 | 82.93 | 84.21 | 82.59 | 84.39 | 88.00 | 86.85 | 88.12 |
| 2030 | 87.21 | 88.28 | 92.46 | 86.89 | 68.43 | 83.64 | 84.98 | 85.17 | 84.95 | 89.66 | 88.91 | 89.94 |
| 2031 | 89.10 | 90.50 | 93.69 | 87.32 | 69.81 | 83.38 | 86.78 | 86.97 | 85.14 | 91.14 | 90.93 | 90.04 |
| 2032 | 90.57 | 92.00 | 95.23 | 88.76 | 70.97 | 84.75 | 88.21 | 88.41 | 86.54 | 92.64 | 92.44 | 91.53 |
| 2033 | 92.57 | 94.03 | 97.34 | 90.72 | 72.53 | 86.63 | 90.16 | 90.36 | 88.46 | 94.69 | 94.48 | 93.55 |
| 2034 | 94.36 | 95.84 | 99.22 | 92.47 | 73.93 | 88.30 | 91.90 | 92.10 | 90.16 | 96.52 | 96.30 | 95.36 |
| 2035 | 96.18 | 97.69 | 101.13 | 94.25 | 75.36 | 90.00 | 93.68 | 93.88 | 91.90 | 98.38 | 98.16 | 97.20 |
| 2036 | 97.77 | 99.31 | 102.80 | 95.81 | 76.61 | 91.49 | 95.22 | 95.43 | 93.42 | 100.00 | 99.78 | 98.80 |
| 2037 | 99.93 | 101.50 | 105.07 | 97.93 | 78.30 | 93.51 | 97.33 | 97.54 | 95.49 | 102.21 | 101.99 | 100.99 |
| 2038 | 101.86 | 103.46 | 107.10 | 99.82 | 79.81 | 95.31 | 99.20 | 99.42 | 97.33 | 104.19 | 103.95 | 102.93 |
| 2039 | 103.82 | 105.46 | 109.17 | 101.74 | 81.35 | 97.15 | 101.12 | 101.34 | 99.21 | 106.20 | 105.96 | 104.92 |
| 2040 | 105.54 | 107.20 | 110.97 | 103.42 | 82.69 | 98.76 | 102.79 | 103.02 | 100.85 | 107.95 | 107.71 | 106.65 |

SCHEDULE 201 (Continued)

## WIND INTEGRATION

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





SCHEDULE 201 (Continued)

## MONTHLY SERVICE CHARGE

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

## INSURANCE REQUIREMENTS

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

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

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

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

## TRANSMISSION AGREEMENTS

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

## INTERCONNECTION REQUIREMENTS

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

SCHEDULE 201 (Continued)

INTERCONNECTION REQUIREMENTS (Continued)

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

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

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

**Definition of Community-Based**

a. A community project (or a community sponsored project) must have a recognized and established organization located within the county of the project or within 50 miles of the project that has a genuine role in helping the project be developed and must have some not insignificant continuing role with or interest in the project after it is completed and placed in service.

b. After excluding the passive investor whose ownership interests are primarily related to green tag values and tax benefits as the primary ownership benefit, the equity (ownership) interests in a community sponsored project must be owned in substantial percentage (80 percent or more) by the following persons (individuals and entities): (i) the sponsoring organization, or its controlled affiliates; (ii) members of the sponsoring organization (if it is a membership organization) or owners of the sponsorship organization (if it is privately owned); (iii) persons who live in the county in which the project is located or who live a county adjoining the county in which the project is located; or (iv) units of local government, charities, or other established nonprofit organizations active either in the county in which the project is located or active in a county adjoining the county in which the project is located.

**Definition of Family-Owned**

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





SCHEDULE 201 (Concluded)

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

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

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

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

**Definition of Same Site**

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

**Definition of Shared Interconnection and Infrastructure**

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

**OTHER DEFINITIONS**

**Mid-C Index Price**

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

SCHEDULE 201 (Continued)

OTHER DEFINITIONS (Continued)

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

**Definition of RPS Attributes**

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

**Definition of Environmental Attributes**

As used in this schedule, Environmental Attributes shall mean any and all claims, credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance to the air, soil or water. Environmental Attributes include but are not limited to: (1) any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and other pollutants; and (2) any avoided emissions of carbon dioxide (C02), methane (CH4), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

**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 (Continued)

**DISPUTE RESOLUTION**

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

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

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

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

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

**SPECIAL CONDITIONS**

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.