# STANDARD CONTRACT POWER PURCHASE AGREEMENT

THIS AGREEMENT, entered into this <u>17th</u> day, December 2012, is between Conduit 3 Hydroelectric Project, 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 hydroelectric facility for the generation of electric power located in <u>Multnomah</u> County, <u>Oregon</u> with a Nameplate Capacity Rating of <u>172</u> kilowatt ("kW"), as further described in Exhibit B ("Facility"); and

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

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

# **AGREEMENT**

NOW, THEREFORE, the Parties mutually agree as follows:

# **SECTION 1: DEFINITIONS**

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

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

- 1.5.1. PGE has received a certificate addressed to PGE from a Licensed Professional Engineer ("LPE") acceptable to PGE in its reasonable judgment stating that the Facility is able to generate electric power reliably in amounts required by this Agreement and in accordance with all other terms and conditions of this Agreement (certifications required under this Section 1.5 can be provided by one or more LPEs);
- 1.5.2. Start-Up Testing of the Facility has been completed in accordance with Section 1.27:
- 1.5.3. After PGE has received notice of completion of Start-Up Testing, PGE has received a certificate addressed to PGE from an LPE stating that the Facility has operated for testing purposes under this Agreement uninterrupted for a Test Period at a rate in kW of at least 75 percent of average annual Net Output divided by 8,760 based upon any sixty (60) minute period for the entire testing period. The Facility must provide ten (10) working days written notice to PGE prior to the start of the initial testing period. If the operation of the Facility is interrupted during this initial testing period or any subsequent testing period, the Facility shall promptly start a new Test Period and provide PGE forty-eight (48) hours written notice prior to the start of such testing period;
- 1.5.4. PGE has received a certificate addressed to PGE from an LPE stating that in accordance with the Generation Interconnection Agreement, all required interconnection facilities have been constructed, all required interconnection tests have been completed; and the Facility is physically interconnected with PGE's electric system.
- 1.5.5. PGE has received a certificate addressed to PGE from an LPE stating that Seller has obtained all Required Facility Documents and, if requested by PGE in writing, has provided copies of any or all such requested Required Facility Documents;
- 1.6. "Contract Price" means the applicable price as selected by Seller in Section 5.
- 1.7. "Contract Year" means each twelve (12) month period commencing at 00:00 hours on January 1 and ending on 24:00 hours on December 31 falling at least partially in the Term of this Agreement.
  - 1.8. "Effective Date" has the meaning set forth in Section 2.1.
- 1.9. "Environmental Attributes" means any and all current or future credits, benefits, emissions reductions, environmental air quality credits, emissions reduction credits, offsets and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical or other substance attributable to the Facility during the Term, or otherwise attributable to the generation, purchase, sale or use of energy from or by the Facility during the Term, including without limitation any of the same arising out of legislation or regulation concerned with oxides of nitrogen, sulfur or carbon, with

particulate matter, soot or mercury, or implementing the United Nations Framework Convention on Climate Change (the "UNFCCC") or the Kyoto Protocol to the UNFCCC or crediting "early action" emissions reduction, or laws or regulations involving or administered by the Clean Air Markets Division of the Environmental Protection Agency or successor administrator, or any State or federal entity given jurisdiction over a program involving transferability of Environmental Attributes, and any Green Tag Reporting Rights to such Environmental Attributes.

- 1.10. "Facility" has the meaning set forth in the Recitals.
- 1.11. "Forward Replacement Price" means the price at which PGE, acting in a commercially reasonable manner, purchases for delivery at the Point of Receipt a replacement for any Net Output that Seller is required to deliver under this Agreement plus (i) costs reasonably incurred by PGE in purchasing such replacement Net Output, and (ii) additional transmission charges, if any, reasonably incurred by PGE in causing replacement energy to be delivered to the Point of Delivery.
- 1.12. "Generation Interconnection Agreement" means the generation interconnection agreement to be entered into separately between Seller and PGE, providing for the construction, operation, and maintenance of PGE's interconnection facilities required to accommodate deliveries of Seller's Net Output.
- 1.13. "Letter of Credit" means an engagement by a bank or other person made at the request of a customer that the issuer will honor drafts or other demands for payment upon compliance with the conditions specified in the letter of credit.
- 1.14. "Licensed Professional Engineer" or "LPE" means a person who is licensed to practice engineering in the state where the Facility is located, who has no economic relationship, association, or nexus with the Seller, and who is not a representative of a consulting engineer, contractor, designer or other individual involved in the development of the Facility, or of a manufacturer or supplier of any equipment installed in the Facility. Such Licensed Professional Engineer shall be licensed in an appropriate engineering discipline for the required certification being made and be acceptable to PGE in its reasonable judgment.
- 1.15. "Lost Energy Value" means for a Contract Year: zero, unless the Net Output is less than Minimum Net Output and the mean Dow Jones Mid-C Index Price is greater than the Contract Price, in which case Lost Energy Value equals: (Minimum Net Output Net Output) X (the greater of the mean Contract Price or the Mean Dow Jones Mid C Index Price mean Contract Price).
- 1.16. "Mid-Columbia" means an area which includes points at any of the switchyards associated with the following four hydro projects: Rocky Reach, Rock Island, Wanapum and Priest Rapids. These switchyards include: Rocky Reach, Rock Island, Wanapum, McKenzie, Valhalla, Columbia, Midway and Vantage. Mid-Columbia shall also include points in the "Northwest Hub," as defined by Bonneville Power Administration. For scheduling purposes, the footprint described above shall dictate the delivery point name for the then current Western Electricity Coordinating Council

("WECC") scheduling protocols. If the footprint changes during the Term, a mutually agreed upon footprint that describes an area containing the most liquidity for trading purposes shall apply.

- 1.17. "Nameplate Capacity Rating" means the maximum capacity of the Facility as stated by the manufacturer, expressed in kW, which shall not exceed 10,000 kW.
- 1.18. "Net Dependable Capacity" means the maximum capacity the Facility can sustain over a specified period modified for seasonal limitations, if any, and reduced by the capacity required for station service or auxiliaries.
- 1.19. "Net Output" means all energy expressed in kWhs produced by the Facility, less station and other onsite use and less transformation and transmission losses. Net Output does not include any environmental attributes.
  - 1.20. "Off-Peak Hours" has the meaning provided in the Tariff.
  - 1.21. "On-Peak Hours" has the meaning provided in the Tariff.
- 1.22. "Point of Delivery" means the high side of the generation step up transformer(s) located at the point of interconnection between the Facility and PGE's distribution or transmission system, as specified in the Generation Interconnection Agreement.
- 1.23. "Prime Rate" means the publicly announced prime rate or reference rate for commercial loans to large businesses with the highest credit rating in the United States in effect from time to time quoted by Citibank, N.A. If a Citibank, N.A. prime rate is not available, the applicable Prime Rate shall be the announced prime rate or reference rate for commercial loans in effect from time to time quoted by a bank with \$10 billion or more in assets in New York City, N.Y., selected by the Party to whom interest based on the prime rate is being paid.
- 1.24. "Prudent Electrical Practices" means those practices, methods, standards and acts engaged in or approved by a significant portion of the electric power industry in the Western Electricity Coordinating Council that at the relevant time period, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with good business practices, reliability, economy, safety and expedition, and which practices, methods, standards and acts reflect due regard for operation and maintenance standards recommended by applicable equipment suppliers and manufacturers, operational limits, and all applicable laws and regulations. Prudent Electrical Practices are not intended to be limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods and acts generally acceptable or approved by a significant portion of the electric power generation industry in the relevant region, during the relevant period, as described in the immediate preceding sentence.

- 1.25. "Required Facility Documents" means all licenses, permits, authorizations, and agreements necessary for construction, operation, interconnection, and maintenance of the Facility including without limitation those set forth in Exhibit C.
- 1.26. "Senior lien" means a prior lien which has precedence as to the property under the lien over another lien or encumbrance.
- 1.27. "Start-Up Testing" means the completion of applicable required factory and start-up tests as set forth in Exhibit D.
- 1.28. "Step-in rights" means the right of one party to assume an intervening position to satisfy all terms of an agreement in the event the other party fails to perform its obligations under the agreement.
- 1.29. "Tariff" shall mean PGE rate Schedule 201 filed with the Oregon Public Utilities Commission in effect on the Effective Date of this Agreement and attached hereto as Exhibit E.
- 1.30. "Term" shall mean the period beginning on the Effective Date and ending on the Termination Date.
- 1.31. "Test Period" shall mean a period of sixty (60) days or a commercially reasonable period determined by the Seller.
- 1.32. References to Recitals, Sections, and Exhibits are to be the recitals, sections and exhibits of this Agreement.

# SECTION 2: TERM; COMMERCIAL OPERATION DATE

- 2.1 This Agreement shall become effective upon execution by both Parties ("Effective Date").
- 2.2 Time is of the essence of this Agreement, and Seller's ability to meet certain requirements prior to the Commercial Operation Date and to complete all requirements to establish the Commercial Operation Date is critically important. Therefore,
  - 2.2.1 By June 1, 2013 Seller shall begin initial deliveries of Net Output; and
  - 2.2.2 By June 15 2013 Seller shall have completed all requirements under Section 1.5 and shall have established the Commercial Operation Date.
  - 2.2.3 In the event Seller is unable to meet the requirements of Sections 2.2.1 and 2.2.2, Seller shall pay damages equal to the Lost Energy Value. In calculating the Lost Energy Value for use in this section, the Minimum Net Output shall be prorated to account for any operational delay.

2.3 This Agreement shall terminate on December 17, 2032 [20 years from effective date], , or the date the Agreement is terminated in accordance with Section 10 or 12.2, whichever is earlier ("Termination Date").

# SECTION 3: REPRESENTATIONS AND WARRANTIES

- 3.1 Seller and PGE represent, covenant, and warrant as follows:
- 3.1.1 Seller warrants it is an LLC duly organized under the laws of Oregon.
- 3.1.2 Seller warrants that the execution and delivery of this Agreement does not contravene any provision of, or constitute a default under, any indenture, mortgage, or other material agreement binding on Seller or any valid order of any court, or any regulatory agency or other body having authority to which Seller is subject.
- 3.1.3 Seller warrants that the Facility is and shall for the Term of this Agreement continue to be a "Qualifying Facility" ("QF") as that term is defined in the version of 18 C.F.R. Part 292 in effect on the Effective Date. Seller has provided the appropriate QF certification, which may include a Federal Energy Regulatory Commission ("FERC") self-certification to PGE prior to PGE's execution of this Agreement. At any time during the Term of this Agreement, PGE may require Seller to provide PGE with evidence satisfactory to PGE in its reasonable discretion that the Facility continues to qualify as a QF under all applicable requirements.
- 3.1.4 Seller warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and Seller is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.5 Seller warrants that during the Term of this Agreement, all of Seller's right, title and interest in and to the Facility shall be free and clear of all liens and encumbrances other than liens and encumbrances arising from third-party financing of the Facility other than workers', mechanics', suppliers' or similar liens, or tax liens, in each case arising in the ordinary course of business that are either not yet due and payable or that have been released by means of a performance bond acceptable to PGE posted within eight (8) calendar days of the commencement of any proceeding to foreclose the lien.
- 3.1.6 Seller warrants that it will design and operate the Facility consistent with Prudent Electrical Practices.
- 3.1.7 Seller warrants that the Facility has a Nameplate Capacity Rating not greater than 10,000 kW.
- 3.1.8 Seller warrants that Net Dependable Capacity of the Facility is 172 kW.

- 3.1.9 Seller estimates that the average annual Net Output to be delivered by the Facility to PGE is 1,150,000 kilowatt-hours ("kWh"), which amount PGE will include in its resource planning.
- 3.1.10 Seller will deliver from the Facility to PGE at the Point of Delivery Net Output not to exceed a maximum of 1,500,000 kWh of Net Output during each Contract Year ("Maximum Net Output").
- 3.1.11 Seller has entered into a Generation Interconnection Agreement for a term not less than the term of this Agreement.
- 3.1.12 PGE warrants that it has not within the past two (2) years been the debtor in any bankruptcy proceeding, and PGE is and will continue to be for the Term of this Agreement current on all of its financial obligations.
- 3.1.13 Seller will not make any changes in its ownership, control or management during the term of this Agreement that would cause it to not be in compliance with the Definition of a Small Cogeneration Facility or Small Power Production Facility Eligible to Receive the Standard Rates and Standard Contract approved by the Commission at the time this Agreement is executed. Seller will provide, upon request by Buyer not more frequently than every 36 months, such documentation and information as may be reasonably required to establish Seller's continued compliance with such Definition. Buyer agrees to take reasonable steps to maintain the confidentiality of any portion of the above described documentation and information that the Seller identifies as confidential except Buyer will provide all such confidential information to the Public Utility Commission of Oregon upon the Commission's request.

#### SECTION 4: DELIVERY OF POWER

- 4.1 Commencing on the Effective Date and continuing through the Term of this Agreement, Seller shall sell to PGE the entire Net Output delivered from the Facility at the Point of Delivery.
- 4.2 Provided Seller has elected the Contract Price options in Section 5.1, 5.2, or 5.3, Seller shall deliver to PGE from the Facility either a) a minimum of seventy-five percent (75%) of its average annual Net Output or b) the Alternative Minimum Amount as defined in Exhibit A during each Contract Year (hereinafter "Minimum Net Output"), provided that such Minimum Net Output for the first or last Contract Year during which Commercial Operations begins shall be reduced pro rata to reflect the Commercial Operation Date, and further provided that such Minimum Net Output shall be reduced on a pro-rata basis for any periods during a Contract Year that the Facility was prevented from generating electricity for reasons of Force Majeure. PGE shall pay Seller the Contract Price for all delivered Net Output.
- 4.3 Provided Seller has elected the Contract Price options in Section 5.1, 5.2, or 5.3, Seller agrees that if Seller does not deliver the Minimum Net Output each Contract Year, PGE will suffer losses equal to the Lost Energy Value. As damages for

Seller's failure to deliver the Minimum Net Output (subject to adjustment for reasons of Force Majeure as provided in Section 4.2) in any Contract Year, notwithstanding any other provision of this Agreement, the purchase price payable by PGE for future deliveries shall be reduced until Lost Energy Value is recovered. PGE and Seller shall work together in good faith to establish the period, in monthly amounts, of such reduction so as to avoid Seller's default on its commercial or financing agreements necessary for its continued operation of the Facility. For QF Facilities sized at 100 kW or smaller, the provisions of this section shall 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 to greater than 10,000 kW, then Seller shall be required to enter into a new power purchase agreement for all delivered Net Output proportionally related to the increase of Nameplate Capacity above 10,000kW.
- 4.5 To the extent not otherwise provided in the Generation Interconnection Agreement, all costs associated with the modifications to PGE's interconnection facilities or electric system occasioned by or related to the interconnection of the Facility with PGE's system, or any increase in generating capability of the Facility, or any increase of delivery of Net Dependable Capacity from the Facility, shall be borne by Seller.
- 4.6 Seller may report under §1605(b) of the Energy Policy Act of 1992 or under any applicable program as belonging to Seller any of the Environmental Attributes produced with respect to the Facility, and PGE shall not report under such program that such Environmental Attributes belong to it.

# SECTION 5: CONTRACT PRICE

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

5.1	_X	Fixed Price
5.2		Deadband Index Gas Price

5.3 X Index Gas Price 5.4 Mid-C Index Rate Price

# SECTION 6: OPERATION AND CONTROL

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

#### SECTION 7: CREDITWORTHINESS

In the event Seller: a) is unable to represent or warrant as required by Section 3 that it has not been a debtor in any bankruptcy proceeding within the past two (2) years; b) becomes such a debtor during the Term; or c) is not or will not be current on all its financial obligations, Seller shall immediately notify PGE and shall promptly (and in no less than 10 days after notifying PGE) provide default security in an amount reasonably acceptable to PGE in one of the following forms: Senior Lien, Step in Rights, a Cash of Credit. The amount of such default security that shall be Escrow or Letter acceptable to PGE shall be equal to: (annual On Peak Hours) X (On Peak Price - Off Peak Price) X (Minimum Net Output / 8760). Notwithstanding the foregoing, in the event Seller is not current on construction related financial obligations, Seller shall notify PGE of such delinquency and PGE may, in its discretion, grant an exception to the requirements to provide default security if the QF has negotiated financial arrangements with the construction loan lender that mitigate Seller's financial risk to PGE.

# **SECTION 8: METERING**

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

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

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

# SECTION 10: DEFAULT, REMEDIES AND TERMINATION

- 10.1 In addition to any other event that may constitute a default under this Agreement, the following events shall constitute defaults under this Agreement:
  - 10.1.1 Breach by Seller or PGE of a representation or warranty, except for Section 3.1.4, set forth in this Agreement.
  - 10.1.2 Seller's failure to provide default security, if required by Section 7, prior to delivery of any Net Output to PGE or within 10 days of notice.
  - 10.1.3 Seller's failure to deliver the Minimum Net Output for two consecutive Contract Years.
    - 10.1.4 If Seller is no longer a Qualifying Facility.
  - 10.1.5 Failure of PGE to make any required payment pursuant to Section 9.1.
- 10.2 In the event of a default hereunder, the non-defaulting party may immediately terminate this Agreement at its sole discretion by delivering written notice to the other Party, and, except for damages related to a default pursuant to Section 10.1.3 by a QF sized at 100 kW or smaller, may pursue any and all legal or equitable remedies provided by law or pursuant to this Agreement including damages related to the need to procure replacement power. Such termination shall be effective upon the date of delivery of notice, as provided in Section 21.1. The rights provided in this Section 10 are cumulative such that the exercise of one or more rights shall not constitute a waiver of any other rights.
- 10.3 If this Agreement is terminated as provided in this Section 10 PGE shall make all payments, within thirty (30) days, that, pursuant to the terms of this Agreement, are owed to Seller as of the time of receipt of notice of default. PGE shall not be required to pay Seller for any Net Output delivered by Seller after such notice of default.
- 10.4 If this Agreement is terminated as a result of Seller's default, Seller shall pay PGE the positive difference, if any, obtained by subtracting the Contract Price from the sum of the Forward Replacement Price for the Minimum Net Output that Seller was otherwise obligated to provide for a period of twenty-four (24) months from the date of termination. Accounts owed by Seller pursuant to this paragraph shall be due within five (5) business days after any invoice from PGE for the same.
- 10.5 In the event PGE terminates this Agreement pursuant to this Section 10, and Seller wishes to again sell Net Output to PGE following such termination, PGE in its sole discretion may require that Seller shall do so subject to the terms of this Agreement, including but not limited to the Contract Price until the Term of this Agreement (as set forth in Section 2.3) would have run in due course had the Agreement remained in effect. At such time Seller and PGE agree to execute a written document ratifying the terms of this Agreement.

10.6 Sections 10.1 10.3 10.4 10.5, 11, and 20.2 shall survive termination of this Agreement.

# SECTION 11: INDEMNIFICATION AND LIABILITY

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

# **SECTION 12: INSURANCE**

12.1 Prior to the connection of the Facility to PGE's electric system, provided such Facility has a design capacity of 200 kW or more, Seller shall secure and continuously carry for the Term hereof, with an insurance company or companies rated not lower than "B+" by the A. M. Best Company, insurance policies for bodily injury and property damage liability. Such insurance shall include provisions or endorsements naming PGE, it directors, officers and employees as additional insureds; provisions that such insurance is primary insurance with respect to the interest of PGE and that any

insurance maintained by PGE is excess and not contributory insurance with the insurance required hereunder; a cross-liability or severability of insurance interest clause; and provisions that such policies shall not be canceled or their limits of liability reduced without thirty (30) days' prior written notice to PGE. Initial limits of liability for all requirements under this section shall be \$1,000,000 million single limit, which limits may be required to be increased or decreased by PGE as PGE determines in its reasonable judgment economic conditions or claims experience may warrant.

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

# SECTION 13: FORCE MAJEURE

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

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the price of energy or transmission, wind or water droughts, and obligations for the payment of money when due.

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

# SECTION 14: SEVERAL OBLIGATIONS

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

# SECTION 15: CHOICE OF LAW

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

# SECTION 16: PARTIAL INVALIDITY AND PURPA REPEAL

It is not the intention of the Parties to violate any laws governing the subject matter of this Agreement. If any of the terms of the Agreement are finally held or determined to be invalid, illegal or void as being contrary to any applicable law or public policy, all other terms of the Agreement shall remain in effect. If any terms are finally held or determined to be invalid, illegal or void, the Parties shall enter into negotiations

concerning the terms affected by such decision for the purpose of achieving conformity with requirements of any applicable law and the intent of the Parties to this Agreement.

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

# **SECTION 17: WAIVER**

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

# SECTION 18: GOVERNMENTAL JURISDICTION AND AUTHORIZATIONS

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

# SECTION 19: SUCCESSORS AND ASSIGNS

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

# SECTION 20: ENTIRE AGREEMENT

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

# **SECTION 21: NOTICES**

All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or

when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested:

To Seller:	Asset Manager
	Conduit 3 Hydroelectric Project, LLC
	108 NW 9 <sup>th</sup> Avenue, Suite 201
	Portland, OR 97209
$\epsilon$	
with a copy to:	CEO
	Lucid Energy
	108 NW 9 <sup>th</sup> Avenue, Suite 201
	Portland, OR 97209
To PGE:	Contracts Manager
10102.	QF Contracts, 3WTCBR06
565	PGE - 121 SW Salmon St.
	Portland, Oregon 97204
	Tottland, Oregon 37204

21.2 The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 21.

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

By: James F. Lobdell
Name: James F. Lobdell
Title: VP Power Operations & Resource Strategy

Conduit 3 Hydroelectric Project, LLC.
(Name Seller) By Lucid Energy, Inc.

By: Name: Gregg Semiler
Title: CEO

Approved By:

Business Terms

Credit

Legal

Risk Mgt.

PGE

Approved By:

D. J.

T. B.

T. B

# EXHIBIT A MINIMUM NET OUTPUT

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

# EXHIBIT B DESCRIPTION OF SELLER'S FACILITY

The project is a 172kW small hydro facility located near the intersection of SE 147<sup>th</sup> Ave. and Powell Blvd. in Portland. The project, utilizing the City of Portland's water transmission infrastructure, features four turbines installed in series in a 50 foot long underground vault. Electrical controls are housed in a small shed located on a nearby property.

The project utilizes four of Lucid's vertical axis, spherical turbines placed in series. Each turbine is designed to extract 5-6 psi from the pressure in the pipe. The turbine blades are lift-based, like most utility wind turbines, differing substantially from other hydro turbines.

A 50' long x 11' wide x 12' high concrete vault is installed underground on 147<sup>th</sup> Ave. The city water line, a 50" pipe, enters the vault and reduces down to a 42" pipe. The reduction in size increases the velocity of the water, improving generation for Lucid. The four turbines are installed in series within the 42" pipe.

Each turbine is fitted with its own 63kW Siemens generator (motor). This is a direct-drive motor operating as a low-rpm, synchronous induction generator. As such, no gear box is required and the motor controls allow energy production to be maximized over a wide range of operating conditions by varying the load on the turbine. The output from the generators is three phase AC.

Electricity is fed to an electrical shed located on private property just west of the vault. Electrical controls and inverters are housed in the shed. The land for the shed is leased from the property owner. The three phase AC generator output is rectified to DC and fed to two 120kW inverters which will output power at 480 volts, three phase.

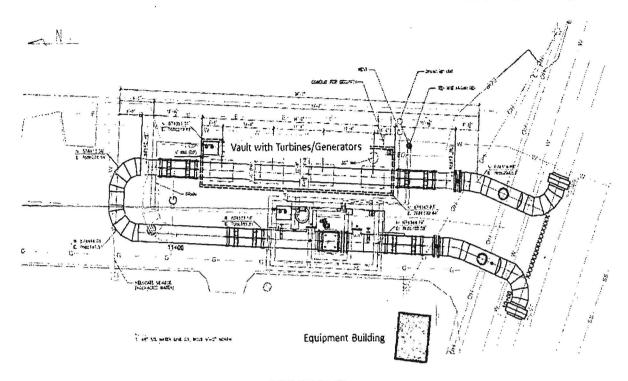


EXHIBIT C
REQUIRED FACILITY DOCUMENTS

- FERC Conduit Exemption
- Generation Interconnection Agreement
- State Hydroelectric Water Right
- Portland Office of Community Technology Franchise Agreement
- City Engineer's approval

# 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):

- 2. Insulation resistance and point-to-point continuity tests;
- 3. Calibration of all pressure, flow, temperature and monitoring instruments;
- Operating tests of all valves, operators, pumps;
- 5. Tests required by manufacturer of equipment; and
- 6. 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. Pressure tests of the pipe system.
- Brake tests:
- 3. Turbine/generator mechanical runs including shaft, vibration, and bearing temperature measurements;
- 4. Energization of transformers;
- Heat runs:
- 6. Running tests to establish tolerances and inspections for final adjustment of bearings, shaft run-outs:
- 7. Load rejection tests in incremental stages from 5, 25, 50, 75 and 100 percent load;
- 8. Open circuit and short circuit; saturation tests;
- 9. Operating at low and high flow rates.
- 10. Alarms, signals, and fail-safe or system shutdown control tests;
- 11. Tests required by manufacturer of equipment;
- 12. Excitation and voltage regulation operation tests;
- 13. Phase angle and magnitude of all PT and CT secondary voltages and currents to protective relays, indicating instruments and metering:
- 14. Auto stop/start sequence; and
- 15. Completion of all state and federal environmental testing requirements.

# EXHIBIT E TARIFF

Schedule 201 in separate attachment

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

#### **PURPOSE**

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

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#### **AVAILABLE**

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

#### **APPLICABLE**

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

#### **ESTABLISHING CREDITWORTHINESS**

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

#### POWER PURCHASE INFORMATION

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

Advice No. 09-16 Issued July 10, 2009 Maria M. Pope, Senior Vice President

Effective for service on and after September 9, 2009

#### **POWER PURCHASE AGREEMENT**

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

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

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

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

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

A Seller choosing a Standard Contract will complete all informational and price option selection requirements in the applicable Standard Contract (Appendix 1 to this schedule) and submit the executed Agreement to the Company prior to service under this schedule. The Standard Contract is available at <a href="https://www.portlandgeneral.com">www.portlandgeneral.com</a>. The available Standard Contracts are: Standard Contract Power Purchase Agreement, Standard Contract Off System Power Purchase Agreement, Standard Contract for Intermittent Resources and Standard Contract for Off System Intermittent Resources. The Standard Contracts applicable to Intermittent Resources are available only to QFs utilizing wind, solar or run of niver hydro as the primary motive force.

#### **GUIDELINES FOR 10 MW OR LESS FACILITIES**

In order to execute the Standard Contract the Seller must complete all of the general project information requested in the applicable Standard Contract.

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

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

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

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#### OFF SYSTEM POWER PURCHASE AGREEMENT

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

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

#### **AVOIDED COST SUMMARY**

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

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

#### **ON-PEAK PERIOD**

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

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

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

Avoided Costs are based on forward market price estimates through December 2014, the period of time dunng which the Company's Avoided Costs are associated with incremental purchases of Energy and capacity from the market. For the period 2015 through 2030, the Avoided Costs reflect the fully allocated costs of a natural gas fueled combined cycle combustion turbine (CCCT) including fuel and capital costs. The CCCT Avoided Costs are based on the variable cost of Energy plus capitalized Energy costs at a 93% capacity factor based on a natural gas price forecast, with prices modified for shrinkage and transportation costs.

# PRICING OPTIONS FOR STANDARD CONTRACTS

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

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

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

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

# 1) Fixed Price Option

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

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

						TABLE 1							1
					(3.00.0)	oided Co							
						Price C					-		Į
<u> </u>					On-Peak	Forecas	t (\$/MWH	)					1
Year	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(C)
2011	40.81	39.03	35.36	30.88	24.51	21.96	37.76	45.65	44.12	40.81	43.61	52.28	1
2012	48.09	45.98	41.62	36.30	28.74	25.72	44.46	53.83	52.02	48.09	51.42	61.70	
2013	52.59	50.27	45.50	39.67	31.39	28.07	48.61	58.89	56.90	52.59	56.24	67.50	
2014	55.37	52.92	47.90	41.75	33.01	29.53	51.18	62.00	59.91	55.37	. 59.21	71.08	
2015	87.82	87.57	86.50	84.30	84.22	84.37	84.62	84.87	85.00	85.47	86.59	87.94	
2016	91.71	91.43	90.24	87.99	87.91	88.11	88.39	88.67	88.80	89.31	90.49	91.91	1
2017	92.89	92.95	92.56	92.13	92.36	92.80	93.33	93.75	93.95	94.73	96.79	99.66	
2018	96.87	96.94	96.52	96.06	·· 96.31	96.77°	97.35	97.80	98.02	98.86	101.07	104.17	
2019	100.38	100.46	100.01	99.52	99.79	100.28	100.89	101.37	101.60	102.49	104.83	108.10	
2020	103.85	103.92	103.45	102.94	103.22	103.74	104.38	104.89	105.13	106.07	108.54	112.00	
2021	107.52	107.60	107.10	106.56	106.86	107.41	108.08	108.61	108.86	109.85	112.45	116.08	
2022	112.09	112.18	111.65	111.07	111.39	111.97	112.70	113.26	113.53	114.59	117.36	121.24	
2023	117.00	117.09	116.52	115.91	116.25	116.87	117.64	118.24	118.53	119.65	122.61	126.74	1
2024	121.50	121.60	121.00	120.35	120.71	121.37	122.19	122.83	123.13	124.33	127.47	131.87	
2025	126.70	126.80	126.17	125.47	125.85	126.56	127.43	128.11	128.43	129.70	133.04	137.72	
2026	129.03	129.13	128.48	127.78	128.17	128.88	129.77	130.46	130.79	132.09	135.48	140.25	
2027	131.40	131.51	130.85	130.13	130.52	131.25	132.15	132.86	133.20	134.51	137.98	142.82	
2028	133.83	133.93	133.26	132.53	132.93	133.67	134.59	135.31	135.65	137.00	140.52	145.46	
2029	136.28	136.38	135.70	134.96	135.36	136.12	137.06	137.79	138.14	139.51	143.09	148.12	1
2030	138.78	138.89	138.19	137.44	137.85	138.62	139.58	140.32	140.68	142.07	145.73	150.85	(C)

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

						TABLE 2									
		-			Av	oided Co	sts								
	Fixed Price Option														
	Off-Peak Forecast (\$/MWH)														
				** * * * *					*						
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2011	35.72	34.95	31.54	23.23	14.32	10.75	23.74	33.68	35.21	35.21	36.99	45.40			
2012	42.43	41.51	37.43	27.47	16.78	12.51	28.08	39.99	41.82	41.82	43.96	54.04			
2013	45.24	44.26	39.89	29.27	17.87	13.32	29.93	42.63	44.59	44.59	46.87	57.61			
2014	46.81	45.80	41.28	30.28	18.47	13.75	30.95	44.11	46.14	46.14	48.49	59.63			
2015	38.19	37.94	36.87	34.67	34.58	34.74	34.99	35.24	35.36	35.84	36.96	38.31			
2016	41.32	41.04	39.85	37.61	37.53	37.73	38.00	38.28	38.41	38.92	40.10	41.52			
2017	41.24	41.31	40.91	40.49	40.72	41.15	41.69	42.11	42.31	43.09	45.14	48.02			
2018	44.45	44.51	44.09	43.63	43.88	44.35	44.93	45.38	45.59	46.44	48.65	51.75			
2019	47.00	47.07	46.62	46.13	46.40	46.89	47.50	47.98	48.21	49.10	51.44	54.71			
2020	49.65	49.72	49.25	48.74	49.02	49.54	50.18	50.69	50.93	51.87	54.34	57.80			
2021	52.15	52.22	51.73	51.19	51.49	52.03	52.71	53.24	53.49	54.48	57.07	60.71			
2022	55.70	55.79	55.26	54.68	55.00	55.58	56.30	56.87	57.14	58.19	60.96	64.85			
2023	59.38	59.47	58.91	58.30	58.63	59.26	60.03	60.63	60.91	62.04	64.99	69.13			
2024	63.21	63.30	62.70	62.05	62.41	63.07	63.89	64.53	64.83	66.03	69.17	73.58			
2025	67.14	67.24	66.60	65.91	66.29	66.99	67.86	68.55	68.87	70.14	73.48	78.15			
2026	68.37	68.47	67.83	67.12	67.51	68.22	69.11	69.80	70.13	71.43	74.83	79.59			
2027	69.63	69.73	69.07	68.35	68.75	69.48	70.38	71.09	71.42	72.74	76.20	81.05			
2028	70.92	71.02	70.35	69.62	70.02	70.76	71.68	72.40	72.74	74.09	77.61	82.55			
2029	72.21	72.32	71.63	70.89	71.30	72.05	72.99	73.72	74.07	75.44	79.03	84.06			
2030	73.53	73.64	72.95	72.19	72.61	73.38	74.33	75.08	75.43	76.82	80.48	85.60			

Under the Fixed Price Option, the Company will pay Seller the Off-Peak Avoided Cost pursuant to Table 2 for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveries above the nameplate capacity in any hour. The Company will pay the Seller the On-Peak Avoided Cost pursuant to Table 1 for all other output. (See Appendix 1, the Standard Contract for defined terms.)

PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

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

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

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

Off Peak Price: Poff

Variable Operating and Maintenance, VFG

Fixed Costs, and Gas Transportation (Table 6):

Capacity Value (Table 7):

Heat Rate: HR = 6,732 BTU/kWh (C)

 $\mathsf{GP}_{\mathsf{Sumas}}$ 

Losses: 1.9%

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

First of Month\* Northwest Pipeline Corp.
Canadian Border Index as Reported in Platts
Inside FERC's Gas Market Report

First of Month\* one-month spot price averages

for AECO/NIT transactions as Reported in

Canadian Gas Price Reporter

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

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

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

Where:

If GPMI>GPF

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

Otherwise

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

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

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

Tables 3 and 4 below list applicable rates for Options 2 (Deadband Index Gas Price Option) and 3 (Index Gas Price Option) for the period through 2014. The monthly On- and Off-Peak prices will be applied for all Market Based Price Options.

Price Options.	
TABLE 3	
Avoided Costs	
On-Peak Resource Sufficiency Rate (\$/MWH)	

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Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	, Oct	Nov	Dec
2011	40.81	39.03	35.36	30.88	24.51	21.96	37.76	45.65	44.12	40.81	43.61	52.28
2012	48.09	45.98	41.62				44.46	53.83	52.02	48.09	51.42	61.70
2013	52.59	50.27	45.50	39.67	31.39	28.07	48.61	58.89	56.90	52.59	56.24	67.50
2014	55.37	52.92	47.90	41.75	33.01	29.53	51.18	62.00	59.91	55.37	59.21	71.08

						TABLE 4						
					Ave	oided Co	sts					
			C	ff-Peak I	Resource	e Sufficie	ncy Rate	) (\$/MWH	1)	•		
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	35.72	34.95	31.54	23.23	14.32	10.75	23.74	33.68	35.21	. 35.21	36.99	45.40
2012	42.43	41.51	37.43	27.47	16.78	12.51	28.08	39.99	41.82	41.82	43.96	54.04
2013	45.24	44.26	39.89	29.27	17.87	13.32	29.93	42.63	44.59	44.59	46.87	57.61
	46.81	45.80	41.28	30.28	18.47	13.75	30.95	44.11	46.14	46.14	48.49	59.63

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

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# 2) Deadband Index Gas Price Option

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

The price paid per MWh will be:

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

Under the Deadband method, the Company will pay Seller the Off-Peak prices for: (a) all Net Output delivered prior to the Commercial Operation Date; (b) all Net Output deliveries greater than Maximum Net Output in any Contract Year; (c) any generation subject to and as adjusted by the provisions of Section 4.3 of the

Standard Contract; (d) Net Output delivered in the Off-Peak Period; and (e) deliveres above the nameplate capacity in any hour. All other purchases will be at On-Peak prices. (See Appendix 1, the Standard Contract for defined terms.)

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PRICING OPTIONS FOR STANDARD CONTRACTS (Continued)

MARKET BASED PRICE OPTIONS (Continued)

# 3) Index Gas Price Option

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

The price paid per MWh will be:

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

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

#### 4) Mid C Index Price Option

Under this option, prices paid per MWh will be based on the DJ-Mid-C Firm Index plus 0.211  $\not$  per kWh for wholesale wheeling.

(D)

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

Table 5 contains the gas pricing components for Option 1 (Fixed Price Option) and Option 2 (Deadband Index Gas Price Option).

						TABLE 5	i	** ** *	12	1					
	Forecasted Gas Price - GP <sub>F</sub> (\$/MMBTU) - Without Transportation														
Year	Year Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov D														
2015	5.51	5.48	5.32	5.01	5.00	5.02	5.05	5.09	5.11	5.18	5.34	5.53			
2016	5.96	5.92	5.75	5.43	5.42	5.45	5.49	5.53	5.55	5.62	5.79	5.99			
2017	5.95	5.96	5.91	5.85	5.88	5.94	6.02	6.08	6.11	6.22	6.51	6.93			
2018	6.41	6.42	6.36	6.30	6.33	6.40	6.48	6.55	6.58	6.70	7.02	7.46			
2019	6.78	6.79	6.73	6.66	6.70	6.77	6.85	6.92	6.95	7.08	7.42	7.89			
2020	7.16	7.17	7.10	7.03	7.07	7.14	7.24	7.31	7.34	7.48	7.83	8.33			
2021	7.52	7.53	7.46	7.38	7.43	7.50	7.60	7.68	7.71	7.86	8.23	8.75			
2022	8.03	8.04	7.97	7.89	7.93	8.01	8.12	8.20	8.24	8.39	8.79	9.34			
2023	8.56	8.57	8.49	8.41	8.45	8.54	8.65	8.74	8.78	8.94	9.37	9.96			
2024	9.11	9.12	9.04	8.94	8.99	9.09	9.21	9.30	9.34	9.51	9.96	10.60			
2025	9.68	9.69	9.60	9.50	9.55	9.65	9.78	9.88	9.92	, 10.11	10.58	11.25			
2026	9.85	9.87	9.78	9.67	9.73	9.83	9.96	10.06	10.11	10.29	10.78	11.46			
2027	10.03	10.05	9.96	9.85	9.91	10.01	10.14	10.24	10.29	10.48	10.98	11.67			
2028	10.22	10.23	10.14	10.03	10.09	10.20	10.33	10.43	10.48	10.67	11.18	11.89			
2029	10.41	10.42	10.32	10.22	10.28	10.39	10.52	10.62	10.67	10.87	11.38	12.11			
2030	10.60	10.61	10.51	10.41	10.47	10.58	10.71	10.82	10.87	11.07	11.59	12.33			