

#### **Purchasing and Contract Services**

Klamath Falls: 541.885.1133 (office) 541.885.1215 (fax) 3201 Campus Drive Snell Hall 217 Klamath Falls, OR 97601 Wilsonville: 503.821.1277 (office) 503.533.5190 (fax) 27500 SW Parkway Ave. Wilsonville, OR 97070

#### REQUEST FOR QUOTES (RFQ) #2013-09

Issue Date: May 24, 2013

Project Name:	Electrical Meter Eng	gineering		
BID Due Date/Time:	June 7, 2013, 1:00 P	June 7, 2013, 1:00 PM		
Project Coordinator:	Bob Simonton	Phone:	541-968-2158	
		Email:	Bob.simonton@msn.com	
Contract Coordinator:	George Marlton	Phone:	503-821-1277	
		Email:	George.Marlton@oit.edu	

#### THIS SOLICITATION IS ONLY OPEN TO OUS RETAINER CONTACT PARTICIPANTS

SUBMIT QUOTES VIA EMAIL TO <u>PURCHASING@OIT.EDU</u> OR MAIL/HAND DELIVERY TO THE ABOVE WILSONVILLE ADDRESS TO GEORGE MARLTON

PLEASE NOTE: EMAIL SUBMISSIONS SHOULD HAVE "RFQ #2013-09" IN THE SUBJECT LINE

#### 1. ANNOUNCEMENT AND SPECIAL INFORMATION

Quoters are required to read and understand and comply with all information contained within this RFQ. All quotes are binding upon Quoter for thirty (30) days from the RFQ Due Date/Time. All payments for services will be paid in accordance to OAR 580-061-0050. Quotes received after the RFQ Due Date/Time may not be considered. Travel and other expense reimbursement will only be reimbursed in accordance with the OIT Contractor's Travel Reimbursement Policy at the time the expense is incurred.

It will be the responsibility of potential Quoters to refer daily to the OUS Procurement Gateway website (https://secure.ous.edu/bid/) to check for any available addenda, response to clarifying questions, cancellations or other information pertaining to this Request for Quotes.

#### 2. SCOPE

The Oregon Institute of Technology ("Oregon Tech") is requesting a design fee proposal from qualified engineering firms for the consolidation of two electrical utility meters, located at our Klamath Falls, OR campus. Oregon Tech would ideally like to complete all necessary construction before October 31, 2013. To meet that objective, the selected firm will be required to quickly turn around the design and construction documents so that Oregon Tech can competitively bid the project.

Specific tasks shall include the following:

- Site visit to review existing conditions; kick-off meeting with Oregon Tech Project Manager representatives, and others as determined to review initial project scope, schedule, and budget.
- Inform owner of options and make a recommendation of best option.
- Preparation of 95% construction documents, technical specifications, and updated construction cost estimate.
- Incorporation of final owner review comments and preparation of 100% bid-ready construction documents.
- Response to contractor questions and preparation of addenda during the bidding phase.
- Attendance at pre-bid meeting.

- Preparation of conformed construction documents incorporating addenda.
- Local agency entitlement (permit) administration (if required).
- Bid-ready construction documents shall be submitted in the following hard copy and electronic formats. Electronic files shall be submitted on a CD, and emailed to the Project Manager.
  - One set of 8 ½" x 11" print-ready (hard copy) technical specifications.
  - One set of 11" x 17" print-ready (hard copy) signed, stamped drawings.
  - o Electronic copy of technical specifications in Word and PDF format.
  - o Electronic copy of all stamped, signed drawings, individually saved as PDF-formatted files formatted to print on 11" x 17" paper.
  - o Electronic copy of all drawings in AutoCAD format.
- Construction administration services including attendance at pre-construction meeting, review and approval of submittals, preparation of design clarifications, and review of change orders.
- Inspections services including minimum of 3 interim inspections, one substantial completion inspection, and one final inspection.

Oregon Tech currently has two electric utility meters that serve the complete campus power usage. With the construction of new 1.75 MW geothermal power plant, Oregon Tech has entered into an interconnection agreement with PacifiCorp as a Qualifying Facility. However, the meter chosen for the interconnection and Power Purchase Contract only serves approximately 20% of the campus load. With the goal to offset as much of the campus electrical load with this new renewable energy resource, both campus distribution systems must be connected in a way that will minimize the net power purchased by PacifiCorp.

Oregon Tech has identified two methods of meter aggregation that are under consideration as they move forward with interconnecting the new 1.75 MW geothermal plant to the PacifiCorp grid. Each of these options will need to be assessed to determine a pro/con benefit analysis especially given financial and regulatory constraints. Oregon Tech is also interested in recommendation of other options. The known options are:

- 1. Totalization based on a communication system. The existing meters communicate and provide an overall single meter type function. May require two new primary meters paid for by Oregon Tech, furnished and installed by PacifiCorp.
- 2. Re-route the existing main feeder to the existing net meter located near the heat exchange building net meter, creating a single campus meter.

The two existing utility meters are currently arranged in the following manner:

#### Meter 1

- Responsible for approximately 80% of total campus demand.
- The current metering agreement is structured as a Time of Day (TOD) pricing contract.
  - o 70% of rate usage is classified as peak hours
  - o 30% of rate usage is classified as off-peak hours
  - o Average monthly usage is 685,000/kwh or \$48,000 of electricity cost.
  - o This meter is not a net meter.

#### Meter 2

- Responsible for approximately 20% of total campus demand.
  - o The current co-generation plant resides on Meter 2.
  - The current co-generation plant offsets some percentage of energy usage on this meter
  - The new co-generation plant has been designed to connect to PacifiCorp through Meter 2.
  - o The current metering agreement is structured as a Flat Rate pricing contract.
    - No difference in peak or off peak rate charges
  - o Average monthly usage is 115,000/kwh or \$9,000 of electricity usage.

This meter is a net meter.

See the Oregon Tech Power Distribution Map attached Exhibit 1 and OIT Interconnection contract with PacifiCorp attached as Exhibit 2 for further background and requirements.

Interested proposers may schedule a walkthrough with Bob Simonton.

#### 3. Quote

Quotes should be short and concise with the following information:

- A. Company and proposed project manager experience in these types of projects;
- B. Fee (on a time and material basis for each phase with a project total not to exceed):
  - a. Design
  - b. Construction Document Development;
  - c. Bidding Phase;
  - d. Construction Administration Phase.
- C. Project Timeline propose timeline for all critical events (e.g. notice to proceed, design development, construction document development, bidding phase, etc.);
- D. 3 References from similar projects.

#### 4. Evaluation

Quotes will be evaluated based on subjective factors including, but not limited to: Company experience, staff experience, not-to-exceed price for the services, proposed timeline and references.

#### OREGON INSTITUTE OF TECHNOLOGY CERTIFICATIONS RFO #2013-09

Each Quoter must read, complete and submit a copy of this Oregon Institute of Technology Certification with their Quote. Failure to do so may result in rejection of Quote. By signature on this Certification the undersigned certifies that they are authorized to act on behalf of the Quoter and that under penalty of perjury the undersigned will comply with the following:

#### SECTION I. OREGON TAX LAWS

As required in ORS 305.385(6) the undersigned hereby certifies that to the best of the undersigned's knowledge, the Entity is not in violation of any Oregon Tax Laws. For purposes of this certification, "Oregon Tax Laws" means a state tax imposed by ORS 401.792 to 401.816 and ORS chapters 118, 314, 316, 317, 318, 320, 321 and 323; the elderly rental assistance program under ORS 310.630 to 310.706; and local taxes administered by the Department of Revenue under ORS 305.620. If a Contract is executed, this information will be reported to the Internal Revenue Service. Information not matching IRS records could subject Contractor to 31% backup withholding.

#### SECTION II. AFFIRMATIVE ACTION

The undersigned hereby certifies that they have not discriminated against Minority, Women or Emerging Small Business Enterprises in obtaining any required subcontracts, pursuant to OAR 580-061-0030(3).

#### SECTION III. COMPLIANCE WITH SOLICITATION

The undersigned further agrees and certifies that they:

- 1. Have read, understand and agree to be bound by and comply with all requirements, instructions, specifications, terms and conditions of the RFQ (including any attachments); and
- 2. Are an authorized representative of the Quoter, that the information provided is true and accurate, and that providing incorrect or incomplete information may be cause for rejection of the Quote or contract termination; and
- 3. Will furnish the designated item(s) and/or service(s) in accordance with the RFO and Ouote.

Firm Name:	Dat	nte:	
Signature:		tle:	
Name (Type or Print):		elephone:	
Email:		R CCB # (if applicable):	
	Sole Proprietorship	☐ Non-Profit ☐ Limited Liability Compare  Business: (Mark if applicable and certification #)	ny
•			
Minority:	women:	ESB:	
Self-Reported Minority, Women, o	or Emerging Small Bus	usiness: (Mark if applicable)	
Minority:	Women:	ESB:	

### OREGON INSTITUTE OF TECHNOLOGY INSTRUCTIONS TO QUOTERS

Quotes are subject to the applicable provisions and requirements of the Oregon Administrative Rules and Oregon Revised Statutes.

#### **OUOTE PREPARATION**

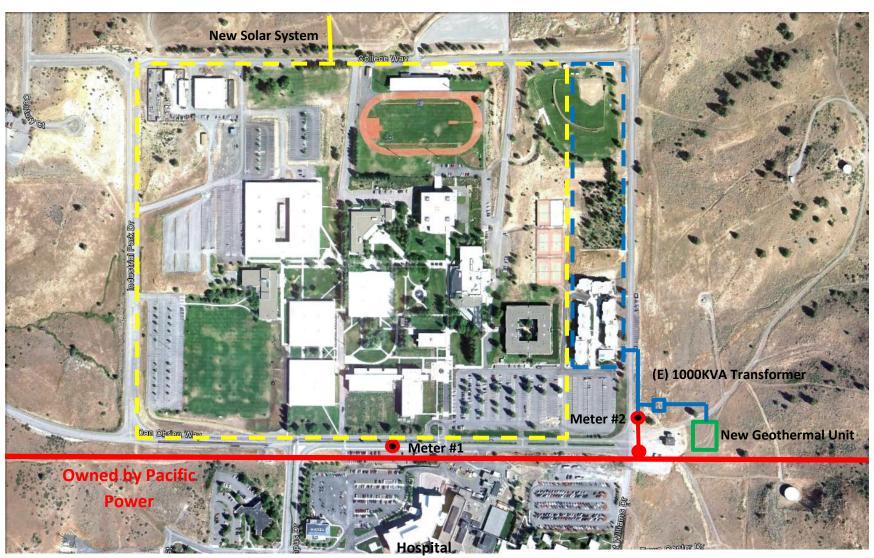
- **1. QUOTE FORMAT**: Quotes must be must be submitted as indicated in the RFQ. Quotes may be submitted in writing to OIT office via e-mail, mail or in person.
- 2. CONFORMANCE TO RFQ REQUIREMENTS: Quotes must conform to the requirements of the RFQ. Unless otherwise specified, all items quoted are to be new, unused and not remanufactured in any way. Any requested attachments must be submitted with the quote and in the required format. Quote prices must be for the unit indicated on the quote. Failure to comply with all requirements may result in quote rejection.
- 3. ADDENDA: Only documents issued as addenda by OIT serve to change the RFQ in any way. No other directions received by the Quoter, written or verbal, serve to change the RFQ document. NOTE: IF YOU HAVE RECEIVED A COPY OF THE RFQ, YOU SHOULD CONSULT THE UNIVERSITY PROCUREMENT GATEWAY WEBSITE (<a href="https://secure.ous.edu/bid/">https://secure.ous.edu/bid/</a>) TO ENSURE THAT YOU HAVE NOT MISSED ANY ADDENDA OR ANNOUNCEMENTS. QUOTERS ARE NOT REQUIRED TO RETURN ADDENDUMS WITH THEIR QUOTE. HOWEVER, QUOTERS ARE RESPONSIBLE TO MAKE THEMSELVES AWARE OF, OBTAIN AND INCORPORATE ANY CHANGES MADE IN ANY ADDENDUMS ISSUED, AND TO INCORPORATE ANY CHANGES MADE BY ADDENDUM INTO THEIR FINAL QUOTE. FAILURE TO DO SO MAY, IN EFFECT, MAKE THE QUOTER'S QUOTE NON-RESPONSIVE, WHICH MAY CAUSE THE QUOTE TO BE REJECTED.
- 4. USE of BRAND or TRADE NAMES: Any brand or trade names used by OIT in RFQ specifications are for the purpose of describing and establishing the standard of quality, performance and characteristics desired and are not intended to limit or restrict competition. Quoters may submit quotes for substantially equivalent products to those designated unless the RFQ provides that a specific brand is necessary because of compatibility requirements, etc. All such brand substitutions shall be subject to approval by OIT.
- **5. PRODUCT IDENTIFICATION**: Quoters must clearly identify all products quoted. Brand name and model or number must be shown. OIT reserves the right to reject any quote when the product information submitted with the quote is incomplete.
- 6. FOB DESTINATION: Unless specifically allowed in the RFQ, QUOTE PRICE MUST BE F.O.B. DESTINATION with all transportation and handling charges paid by the Quoter.
- **7. DELIVERY**: Delivery time must be shown in number of calendar days after receipt of purchase order.
- **8. EXCEPTIONS**: Any deviation from quote specifications, or the Oregon University System Retainer Contract may result in quote rejection.
- 9. SIGNATURE ON QUOTE: Quotes must be signed by an authorized representative of the Quoter. Signature on a quote certifies that the quote is made without connection with any person, firm or corporation making a quote for the same goods and/or services and is in all respects fair and without collusion or fraud. Signature on a quote also certifies that the Quoter has read and fully understands all quote specifications, and the Oregon University System Retainer Contract (including insurance requirements). No consideration will be given to any claim resulting from quoting without comprehending all requirements of the RFQ.
- **10. QUOTE MODIFICATION**: Quotes, once submitted, may be modified in writing before the time and date set for quote closing. Any modifications should be signed by an authorized representative, and state that the new document supersedes or modifies the prior quote. Quoters may not modify quotes after quote closing time.
- **11. QUOTE WITHDRAWALS**: Quotes may be withdrawn by request in writing signed by an authorized representative and received by OIT prior to quote closing time. Quotes may also be withdrawn in person before quote closing time upon presentation of appropriate identification.

**12. QUOTE SUBMISSION**: Quotes may be submitted by returning to OIT Purchasing and Contract Services Office in the location designated in the introduction of the RFQ via e-mail, mail or in person but no oral or telephone quotes will be accepted. Envelopes, or e-mails containing Quotes should contain the RFQ Number and RFQ Title.

#### **QUOTE EVALUATION AND AWARD**

- 1. PRIOR ACCEPTANCE OF DEFECTIVE PROPOSALS: Due to limited resources, OIT generally will not completely review or analyze quotes which fail to comply with the requirements of the RFQ or which clearly are not the best quotes, nor will OIT generally investigate the references or qualifications of those who submit such quotes. Therefore, neither the return of a quote, nor acknowledgment that the selection is complete shall operate as a representation by OIT that an unsuccessful quote was complete, sufficient, or lawful in any respect.
- 2. **DELIVERY**: Significant delays in delivery may be considered in determining award if early delivery is required.
- **3. CASH DISCOUNTS**: Cash discounts will not be considered for award purposes unless stated in the RFQ.
- **4. PAYMENT**: Quotes which require payment in less than 30 days after receipt of invoice or delivery of goods, whichever is later, may be rejected.
- 5. INVESTIGATION OF REFERENCES: OIT reserves the right to investigate references and or the past performance of any Quoter with respect to its successful performance of similar services, compliance with specifications and contractual obligations, and its lawful payment of suppliers, sub-contractors, and workers. OIT may postpone the award or execution of the contract after the announcement of the apparent successful Quoter in order to complete its investigation. OIT reserves the right to reject any quote or to reject all quotes at any time prior to OIT's execution of a contract if it is determined to be in the best interest of OIT to do so.
- **6. METHOD OF AWARD**: OIT reserves the right to make the award by item, groups of items or entire quote, whichever is in the best interest of OIT.
- 7. QUOTE REJECTION: OIT reserves the right to reject any and all quotes.
- **8. QUOTE RESULTS**: Quoters who submit a quote will be notified of the RFQ results. Awarded quote files are public records and available for review by appointment.

 $Exhibit \ 1 \\$  Oregon Tech Power Distribution Systems Map - Klamath Falls Campus



Yellow = Loads served by Meter #1, ~80%

Blue = Loads served by Meter #2, ~20%

**Green** = New Geothermal Unit

**Red** = Equipment owned by Pacific Power



March 22, 2013

MaryAnn Zemke Oregon Institute of Technology 3201 Campus Drive Klamath Falls, OR 97601

RE: Oregon Institute of Technology OGIQ0414 – Fully Executed Interconnection Agreement for Small Generator Facility Interconnection

Dear Ms. Zemke:

Enclosed for your file is one (1) fully executed Interconnection Agreement for Small Generator Facility Interconnection dated March 22, 2013.

If you have any questions, please contact Graham Retzlaff at (503) 813-6126.

Sincerely,

Nathan Ortega

Director, Transmission Services

Enclosure

MAR 2 1 2013



Form 8

# Interconnection Agreement for Small Generator Facility Tier 1, Tier 2, Tier 3 or Tier 4 Interconnection (Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

### Oregon Institute of Technology Geothermal Generating Facility

This Interconnection Agreement for Small Generator Facility ("Agreement") is made and entered into this day of made and between the State of Oregon Acting By and Through the State Board of Higher Education on behalf Oregon Institute of Technology organized and existing under the laws of the State of Oregon, ("Interconnection Customer") and PacifiCorp, a Corporation, existing under the laws of the State of Oregon, ("Public Utility"). The Interconnection Customer and Public Utility may be referred to hereinafter singly as a "Party" or collectively as the "Parties."

#### Recitals:

Whereas, the Interconnection Customer is proposing to develop a Small Generator Facility, or to add generating capacity to an existing Small Generator Facility, consistent with the Application completed on March 12, 2012;

Whereas, the Interconnection Customer desires to interconnect the Small Generator Facility with Public Utility's Transmission System and/or Distribution System ("T&D System") in the State of Oregon; and

Whereas, the interconnection of the Small Generator Facility and the Public Utility's T&D System is subject to the jurisdiction of the Public Utility Commission of Oregon ("Commission") and governed by OPUC Rule OAR 860, Division 082 (the "Rule").

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

### Article 1. Scope and Limitations of Agreement

1.1 Scope

This Agreement establishes the standard terms and conditions under which the Small Generator Facility with a Nameplate Capacity of no more than 10 megawatts ("MW") will interconnect to, and operate in Parallel with, the Public Utility's T&D System. The Commission has approved standard terms and conditions governing this class of interconnection. Any additions, deletions or changes to the standard terms and conditions of interconnection approved by the Commission must be mutually agreed by the Parties or, if required by the Rule, any such changes must be approved by the Commission. Terms with initial capitalization, when used in this Agreement, shall have the meanings given in the Rule. This Agreement shall be construed where possible to be consistent with the Rules; to the extent this Agreement conflicts with the Rule, the Rule shall take precedence.



(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

1.2 No Agreement Regarding Power Purchase, Transmission, or Delivery
This Agreement does not constitute an agreement to purchase, transmit, or deliver any
power or capacity from the interconnected Small Generating Facility nor does it constitute
an electric service agreement.

1.3 Other Agreements

Nothing in this Agreement is intended to affect any other agreement between the Public Utility and the Interconnection Customer or any other interconnected entity. If the provisions of this Agreement conflict with the provisions of any other Public Utility tariff, the Public Utility tariff shall control.

#### 1.4 Responsibilities of the Parties

- 1.4.1 The Parties shall perform all obligations of this Agreement in accordance with all applicable laws.
- 1.4.2 The Interconnection Customer will construct, own, operate, and maintain its Small Generator Facility in accordance with this Agreement, IEEE Standard 1547 (2003 ed), IEEE Standard 1547.1 (2005 ed), the National Electrical Code (2005 ed) and applicable standards required by the Commission.
- 1.4.3 Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the Point of Interconnection. Each Party shall provide Interconnection Facilities that adequately protect the other Parties' facilities, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities is prescribed in the Rule and this Agreement and the attachments to this Agreement.

#### 1.5 Parallel Operation and Maintenance Obligations

Once the Small Generator Facility has been authorized to commence Parallel Operation by execution of this Agreement and satisfaction of Article 2.1 of this Agreement, the Interconnection Customer will abide by all written provisions for operating and maintenance as required by this Agreement and any attachments to this Agreement as well as by the Rule and as detailed by the Public Utility in Form 7, title "Interconnection Equipment As-Built Specifications, Initial Settings and Operating Requirements".

#### 1.6 Metering & Monitoring

The Interconnection Customer will be responsible for metering and monitoring as required by OAR 860-082-0070 and as may be detailed in any attachments to this Agreement.





## Tier 1, Tier 2, Tier 3 or Tier 4 Interconnection

(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

#### 1.7 Power Quality

The Interconnection Customer will design its Small Generator Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection that meets the requirements set forth in IEEE 1547. The Public Utility may, in some circumstances, also require the Interconnection Customer to follow voltage or VAR schedules used by similarly situated, comparable generators in the control area. Any special operating requirements will be detailed in Form 7 and completed by the Public Utility as required by the Rule. The Public Utility shall not impose additional requirements for voltage or reactive power support outside of what may be required to mitigate impacts caused by interconnection of the Small Generator Facility to the Public Utility's system.

#### Article 2. Inspection, Testing, Authorization, and Right of Access

#### 2.1 Equipment Testing and Inspection

The Interconnection Customer will test and inspect its Small Generator Facility and Interconnection Facilities prior to interconnection in accordance with IEEE 1547 Standards as provided for in the Rule. The Interconnection will not be final and the Small Generator Facility shall not be authorized to operate in parallel with the Public Utility's T&D System until the Witness Test and Certificate of Completion provisions in the Rule have been satisfied. The Interconnection Customer shall pay or reimburse the Public Utility for its costs to participate in the Witness Test. Operation of the Small Generator Facility requires an effective Interconnection Agreement; electricity sales require a Power Purchase Agreement.

To the extent that the Interconnection Customer decides to conduct interim testing of the Small Generator Facility prior to the Witness Test, it may request that the Public Utility observe these tests. If the Public Utility agrees to send qualified personnel to observe any interim testing proposed by the Interconnection Customer, the Interconnection Customer shall pay or reimburse the Public Utility for its cost to participate in the interim testing. If the Interconnection Customer conducts interim testing and such testing is observed by the Public Utility and the results of such interim testing are deemed acceptable by the Public Utility (hereinafter a "Public Utility-approved interim test"), then the Interconnection Customer may request that such Public Utility-approved interim test be deleted from the final Witness Testing. If the Public Utility elects to repeat any Public Utility-approved interim test as part of the final Witness Test, the Public Utility will bare its own expenses associated with participation in the repeated Public Utility-approved interim test.

#### 2.2 Right of Access:

As provided in OAR 860-082-0030(5), the Public Utility will have access to the Interconnection Customer's premises for any reasonable purpose in connection with the Interconnection Application or any Interconnection Agreement that is entered in to pursuant to the Rule or if necessary to meet the legal obligation to provide service to its





(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

customers. Access will be requested at reasonable hours and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition.

### Article 3. Effective Date, Term, Termination, and Disconnection

#### 3.1 Effective Date

The Agreement shall become effective upon execution by the Parties.

3.2 Term of Agreement

The Agreement will be effective on the Effective Date and will remain in effect for a period of twenty (20) years or the life of the Power Purchase agreement, whichever is shorter or a period mutually agreed to by the Parties, unless terminated earlier by the default or voluntary termination by the Interconnection Customer or by action of the Commission.

#### 3.3 Termination

No termination will become effective until the Parties have complied with all provisions of OAR 860-082-0080 and this Agreement that apply to such termination.

- 3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Public Utility twenty (20) Business Days written notice.
- 3.3.2 Either Party may terminate this Agreement after default pursuant to Article 5.6 of this Agreement.
- 3.3.3 The Commission may order termination of this Agreement.
- 3.3.4 Upon termination of this Agreement, the Small Generator Facility will be disconnected from the Public Utility's T&D System at the Interconnection Customer's expense. The termination of this Agreement will not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.
- 3.3.4 The provisions of this Article 3.3 shall survive termination or expiration of this Agreement.

#### 3.4 Temporary Disconnection

The Public Utility or Interconnection Customer may temporarily disconnect the Small Generator Facility from the Public Utility's T&D System for so long as reasonably necessary, as provided in OAR 860-082-0075 of the Rule, in the event one or more of the following conditions or events occurs:



- 3.4.1 Under emergency conditions, the Public Utility or the Interconnection Customer may immediately suspend interconnection service and temporarily disconnect the Small Generator Facility without advance notice to the other Party. The Public Utility shall notify the Interconnection Customer promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the Small Generator Facility operation. The Interconnection Customer will notify the Public Utility promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the Public Utility's T&D System. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.
- 3.4.2 For routine Maintenance, Parties will make reasonable efforts to provide five Business Days notice prior to interruption caused by routine maintenance or construction and repair to the Small Generator Facility or Public Utility's T&D system and shall use reasonable efforts to coordinate such interruption.
- 3.4.3 The Public Utility shall use reasonable efforts to provide the Interconnection Customer with prior notice of forced outages of the T&D System. If prior notice is not given, the Public Utility shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.
- 3.4.4 For disruption or deterioration of service, where the Public Utility determines that operation of the Small Generator Facility will likely cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generator Facility could cause damage to the Public Utility's T&D System, the Public Utility may disconnect the Small Generator Facility. The Public Utility will provide the Interconnection Customer upon request all supporting documentation used to reach the decision to disconnect. The Public Utility may disconnect the Small Generator Facility if, after receipt of the notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time which shall be at least five Business Days from the date the Interconnection Customer receives the Public Utility's written notice supporting the decision to disconnect, unless emergency conditions exist, in which case the provisions of 3.4.1 of the agreement apply.
- 3.4.5 If the Interconnection Customer makes any change to the Small Generating Facility, the Interconnection Equipment, the Interconnection Facilities, or to any other aspect of the interconnection, other than Minor Equipment Modifications, without prior written authorization of the Public Utility, the Public Utility will have the right to disconnect the Small Generator Facility until such time as the impact of



(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

the change has been studied by the Public Utility and any reasonable requirements or additional equipment or facilities required by the Public Utility to address any impacts from the changes have been implemented by the Parties and approved in writing by the Public Utility. The requirement to apply to the Public Utility for study and approve of modifications is governed by OAR 860-082-0005 (b).

#### 3.5 Restoration of interconnection:

The Parties shall cooperate with each other to restore the Small Generator Facility, Interconnection Facilities, and Public Utility's T&D System to their normal operating state as soon as reasonably practicable following any disconnection pursuant to Article 3.4.

#### Article 4. Cost Responsibility and Billing:

As provided in OAR 860-082-0035, the Interconnection Customer is responsible for the cost of all facilities, equipment, modifications and upgrades needed to facilitate the interconnection of the Small Generator Facility to the Public Utility's T&D System.

#### 4.1 Minor T&D System Modifications:

As provided in the Rule addressing Tier 2 review (OAR 860-082-0050) and in the Rule addressing Tier 3 review (OAR 860-082-0055), it may be necessary for the Parties to construct certain Minor Modifications in order to interconnect under Tier 2 or Tier 3 review. The Public Utility has itemize any required Minor Modifications in the attachments to this Agreement, including a good-faith estimate of the cost of such Minor Modifications and the time required to build and install such Minor Modifications. The Interconnection Customer agrees to pay the costs of such Minor Modifications.

#### 4.2 Interconnection Facilities:

The Public Utility has identified under the review procedures of a Tier 2 review or under a Tier 4 Facilities Study, the Interconnection Facilities necessary to safely interconnect the Small Generator Facility with the Public Utility. The Public Utility has itemized the required Interconnection Facilities in the attachments to this Agreement, including a good-faith estimate of the cost of the facilities and the time required to build and install those facilities. The Interconnection Customer is responsible for the cost of the Interconnection Facilities.

#### 4.3 Interconnection Equipment:

The Interconnection Customer is responsible for all reasonable expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its Interconnection Equipment.

#### 4.4 System Upgrades:

The Public Utility will design, procure, construct, install, and own any System Upgrades. The actual cost of the System Upgrades, including overheads, will be directly assigned to the Interconnection Customer. An Interconnection Customer may be entitled to financial



compensation from other Public Utility Interconnection Customers who, in the future, benefit from the System Upgrades paid for by the Interconnection Customer. Such compensation will be governed by separate rules promulgated by the Commission or by terms of a tariff filed and approved by the Commission. Such compensation will only be available to the extent provided for in the separate rules or tariff.

4.5 **Adverse System Impact:** 

The Public Utility is responsible for identifying the possible Affected Systems and coordinating with those identified Affected Systems, to the extent reasonably practicable, to allow the Affected System owner an opportunity to identify Adverse System Impacts on its Affected System, and to identify what mitigation activities or upgrades may be required on the Public Utility's system or on the Affected System to address impacts on Affected Systems and accommodate a Small Generator Facility. Such coordination with Affected System owners shall include inviting Affected System owners to scoping meetings between the Public Utility and the Interconnection Customer and providing the Affected System owner with study results and other information reasonably required and requested by the Affected System owner to allow the Affected System owner to assess impacts to its system and determine required mitigation, if any, for such impacts. The Parties acknowledge that the Public Utility cannot compel the participation of the Affected System owner and that the Public Utility is not itself responsible for identifying impacts or mitigation associated with an Affected System. The actual cost of any actions taken to address the Adverse System Impacts, including overheads, shall be directly assigned to the Interconnection Customer. The Interconnection Customer may be entitled to financial compensation from other Public Utilities or other Interconnection Customers who, in the future, utilize the upgrades paid for by the Interconnection Customer, to the extent allowed or required by the Commission. Such compensation will only be available to the extent provided for in the separate rules, Commission order or tariff. If the Parties have actual knowledge of an Adverse System Impact on an Affected System, the Interconnection Customer shall not interconnect and operate its Small Generator Facility in parallel with the Public Utility's system, and the Public Utility shall not authorize or allow the continued interconnection or parallel operation of the Small Generator Facility, unless and until such Adverse System Impact has been addressed to the reasonable satisfaction of the Affected System owner.

#### Deposit and Billings: 4.6

The Interconnection Customer agrees to pay to the Public Utility a deposit toward the cost to construct and install any required Interconnection Facilities and/or System Upgrades. The amount of the deposit shall be (select one of the following):

☐ The Parties have not agreed to a schedule of progress payments and the Interconnection Customer shall pay a deposit equal to 100 percent of the estimated cost of the Interconnection Facilities and System Upgrades - the amount of the deposit shall be \$188,998; or



☐ The Parties have agreed to progress payments and final payment under the schedule of payments attached to this Agreement; the Interconnection Customer shall pay a deposit equal to the lesser of (a) 25 percent of the estimated cost of the Interconnection Facilities and System Upgrades, or (b) \$10,000 – the amount of the deposit shall be \$10,000.

If the actual costs of Interconnection Facilities and/or System Upgrades are different than the deposit amounts and/or progress and final payments provided for above, then the Interconnection Customer shall pay the Public Utility any balance owing or the Public Utility shall refund any excess deposit or progress payment within 20 days of the date actual costs are determined

## Article 5. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default

5.1 Assignment

The Interconnection Agreement may be assigned by either Party upon fifteen (15) Business Days prior written notice. Except as provided in Articles 5.1.1 and 5.1.2, said assignment shall only be valid upon the prior written consent of the non-assigning Party, which consent shall not be unreasonably withheld.

- 5.1.1 Either Party may assign the Agreement without the consent of the other Party to any affiliate (which shall include a merger of the Party with another entity), of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement;
- 5.1.2 The Interconnection Customer shall have the right to assign the Agreement, without the consent of the Public Utility, for collateral security purposes to aid in providing financing for the Small Generator Facility. For Small Generator systems that are integrated into a building facility, the sale of the building or property will result in an automatic transfer of this agreement to the new owner who shall be responsible for complying with the terms and conditions of this Agreement.
- 5.1.3 Any attempted assignment that violates this Article is void and ineffective.

  Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same obligations as the assigning Interconnection Customer.

#### 5.2 Limitation of Liability and Consequential Damages

A Party is liable for any loss, cost claim, injury, or expense including reasonable attorney's fees related to or arising from any act or omission in its performance of the provisions of



this Agreement entered into pursuant to the Rule except as provided for in ORS 757.300(4)(c). Neither Party will seek redress from the other Party in an amount greater than the amount of direct damage actually incurred.

#### 5.3 Indemnity

- 5.3.1 Liability under this Article 5.3 is exempt from the general limitations on liability found in Article 5.2.
- 5.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 5.3.3 If an indemnified person is entitled to indemnification under this Article 5.3 as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article 5.3, to assume the defense of such a claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 5.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this Article 5.3, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.
- 5.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article 5.3 may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.
- 5.3.6 The indemnifying Party shall have the right to assume the defense thereof with counsel designated by such indemnifying Party and reasonably satisfactory to the indemnified person. If the defendants in any such action include one or more indemnified persons and the indemnifying Party and if the indemnified person reasonably concludes that there may be legal defenses available to it and/or other indemnified persons which are different from or additional to those available to the



indemnifying Party, the indemnified person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an indemnified person or indemnified persons having such differing or additional legal defenses.

5.3.7 The indemnified person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the indemnifying Party. Notwithstanding the foregoing, the indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the indemnified person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the indemnified person, or there exists a conflict or adversity of interest between the indemnified person and the indemnifying Party, in such event the indemnifying Party shall pay the reasonable expenses of the indemnified person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the indemnified person, which shall not be reasonably withheld, conditioned or delayed.

5.4 Consequential Damages

Neither Party shall be liable to the other Party, under any provision of this Agreement, for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

### 5.5 Force Majeure

- 5.5.1 As used in this Agreement, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."
- 5.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party of the existence of the Force Majeure Event. The



(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance, and if the initial notification was verbal, it should be promptly followed up with a written notification. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event. Until the Force Majeure Event ends the Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be reasonably mitigated. The Affected Party will use reasonable efforts to resume its performance as soon as possible. The Parties shall immediately report to the Commission should a Force Majeure Event prevent performance of an action required by the Rule that the Rule does not permit the Parties to mutually waive.

#### 5.6 Default

- 5.6.1 No default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement, or the result of an act or omission of the other Party. Upon a breach, the non-breaching Party shall give written notice of such breach to the breaching Party. Except as provided in Article 5.6.2, the breaching Party shall have sixty (60) Calendar Days from receipt of the beach notice within which to cure such breach; provided however, if such breach is not capable of cure within 60 Calendar Days, the breaching Party shall commence such cure within twenty (20) Calendar Days after notice and continuously and diligently complete such cure within six months from receipt of the breach notice; and, if cured within such time, the breach specified in such notice shall cease to exist.
- 5.6.2 If a breach is not cured as provided for in this Article 5.6, or if a breach is not capable of being cured within the period provided for herein, the non-breaching Party shall have the right to declare a default and terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. Alternatively, the non-breaching Party shall have the right to seek dispute resolution with the Commission in lieu of default. The provisions of this Article 5.6 will survive termination of the Agreement.



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#### Article 6. Insurance

- 6.1 Pursuant to the Rule adopted by the Commission, the Public Utility may not require the Interconnection Customer to maintain general liability insurance in relation to the interconnection of a Small Generator Facility with an Electric Nameplate Capacity of 200 KW or less. With regard to the interconnection of a Small Generator Facility with an Electric Nameplate Capacity equal to or less than 10 MW but in excess of 200 KW, the Interconnection Customer shall, at its own expense, maintain in force throughout the period of this Agreement general liability insurance sufficient to protect any person (including the Public Utility) who may be affected by the Interconnection Customer's Small Generation Facility and its operation and such insurance shall be sufficient to satisfy the Interconnection Customer's indemnification responsibilities under Article 5.3 of this Agreement.
- 6.2 Within ten (10) days following execution of this Agreement, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, the Interconnection Customer shall provide the Public Utility with certification of all insurance required in this Agreement, executed by each insurer or by an authorized representative of each insurer.
- All insurance required by this Article 6 shall name the Public, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition. The Interconnection Customer's insurance shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. The insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this Agreement, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 6.4 The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this Agreement.
- 6.5 The requirements contained herein as to insurance are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this Agreement.



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Article 7. Dispute Resolution

Parties will adhere to the dispute resolution provisions in OAR 860-082-0080.

#### Article 8. Miscellaneous

8.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of the Agreement and each of its provisions shall be governed by the laws of the State of Oregon, without regard to its conflicts of law principles. The Agreement is subject to all applicable laws. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a governmental authority.

8.2 Amendment

The Parties may mutually agree to amend the Agreement by a written instrument duly executed by both Parties in accordance with provisions of the Rule and applicable Commission Orders and provisions of the laws if the State of Oregon.

8.3 No Third-Party Beneficiaries

The Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

#### 8.4 Waiver

- 8.4.1 The failure of a Party to the Agreement to insist, on any occasion, upon strict performance of any provision of the Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- 8.4.2 The Parties may agree to mutually waive a section of this Agreement so long as prior Commission approval of the waiver is not required by the Rule.
- 8.4.3 Any waiver at any time by either Party of its rights with respect to the Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of the Agreement. Any waiver of the Agreement shall, if requested, be provided in writing.

#### 8.5 Entire Agreement

This Agreement, including any supplementary Form attachments that may be necessary, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of the Agreement. There



are no other agreements, representations, warranties, or covenants that constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

8.6 Multiple Counterparts

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

8.7 No Partnership

This Agreement will not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

8.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other governmental authority; (1) such portion or provision shall be deemed separate and independent; (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling; and (3) the remainder of this Agreement shall remain in full force and effect.

#### 8.9 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor, or designating a third party agent as one responsible for a specific obligation or act required in this Agreement (collectively subcontractors), as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party will require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party will remain primarily liable to the other Party for the performance of such subcontractor.

- 8.9.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and will be construed as having application to, any subcontractor of such Party.
- 8.9.2 The obligations under this Article 8.9 will not be limited in any way by any limitation of subcontractor's insurance.





(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

8.10 Reservation of Rights

Either Party will have the right to make a unilateral filing with the Commission to modify this Agreement. This reservation of rights provision will includes but is not limited to modifications with respect to any rates terms and conditions, charges, classification of service, rule or regulation under tariff rates or any applicable State or Federal law or regulation. Each Party shall have the right to protest any such filing and to participate fully in any proceeding before the Commission in which such modifications may be considered.

#### Article 9. Notices and Records

#### 9.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

#### 9.2 Records

The Public Utility will maintain a record of all Interconnection Agreements and related Form attachments for as long as the interconnection is in place as required by OAR 860-082-0065. The Public Utility will provide a copy of these records to the Interconnection Customer within 15 Business Days if a request is made in writing.

#### If to the Interconnection Customer:

Interconnection Customer: Oregon Institute of Technology

Attention: MaryAnn Zemke Address: 3201 Campus Drive

City: Klamath Falls State: Oregon Zip: 97601

Phone: (541) 885-1106 Fax: (541) 851-5306 E-mail: MaryAnn.Zemke@oit.edu

#### If to Public Utility:

Public Utility: PacifiCorp

Attention: Director, Transmission Services

Address: 825 N.E. Multnomah Street, Suite 1600

City: Portland State: OR Zip: 97232

Phone: (503) 813-6079 Fax: (503) 813-6893





#### 9.3 Billing and Payment

Billings and payments shall be sent to the addresses set out below: (complete if different than article 9.2 above)

#### If to the Interconnection Customer

Interconnection Customer: Oregon Institute of Technology

Attention: MaryAnn Zemke Address: 3201 Campus Drive

City: Klamath Falls State: Oregon Zip: 97601

#### If to Public Utility

Public Utility: PacifiCorp Transmission

Attention: Central Cashiers Address: P.O. Box 2757

City: Portland State: OR Zip: 97232

#### 9.4 Designated Operating Representative

The Parties will designate operating representatives to conduct the communications which may be necessary or convenient for the administration of the operations provisions of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities (complete if different than article 9.2 above)

## <u>Interconnection Customer's Operating Representative</u>: Oregon Institute of Technology

Attention: MaryAnn Zemke Address: 3201 Campus Drive

City: Klamath Falls State: Oregon Zip: 97601 Phone: (541) 855-1106 Fax: (541) 851-5306

E-Mail: MaryAnn.Zemke@oit.edu

### Public Utility's Operating Representative: PacifiCorp

Attention: Grid Operations

Address: 9915 S.E. Ankeny Street City: Portland State: OR Zip: 97216

Phone: (503) 251-5197 Fax: (503) 251-5228



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#### Changes to the Notice Information

Either Party may change this notice information by giving five Business Days written notice prior to the effective date of the change.

#### Article 10. **Signatures**

For Public Utility:

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

Name: Mik VI	_
Title: UP - Transmission	_
Date: 3/22/13	
For the Interconnection Customer:	
Name: May an C LIME	
Title: Vice Predident Finance i Adm	
Date: 18-March - 2013	





#### Attachment 1

### Description of Interconnection Facilities And Metering Equipment Operated or Maintained by the Public Utility

**Small Generating Facility:** A 1750 kW geothermal generating facility consisting of one 1000 kW and one 750 kW Rankine Cycle turbine, with 480 V breakers, protective relays and a 1500 kVA, 480 V/12 kV step-up transformer, connected to Public Utility's 12.0 kV distribution circuit 5L49 out of Lakeport Substation located in Klamath County, Oregon. See Attachment 3.

Interconnection Customer Interconnection Facilities: 12 kV switch and recloser. See Attachment 2.

**Public Utility's Interconnection Facilities:** A 12 kV disconnect switch and bi-directional revenue metering facilities. Estimated cost of the Public Utility's Interconnection Facilities is \$80,081. See Attachment 2.

Estimated Annual Operation and Maintenance Cost of Public Utility's Interconnection Facilities: \$500. Interconnection Customer shall be responsible for Public Utility's actual cost for maintenance of the Public Utility's Interconnection Facilities as it occurs.

**Point of Interconnection:** The point where the Public Utility's Interconnection Facilities connect to the Public Utility's 12.47kV distribution circuit 5A49 out of Public Utility's Lakeport Substation. See Attachment 2.

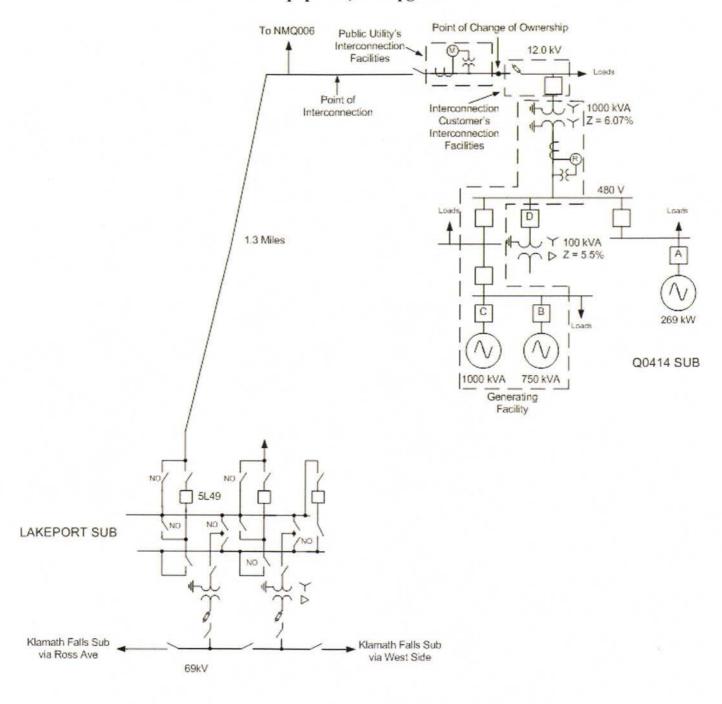
**Point of Change of Ownership:** The point where the Interconnection Customer's Interconnection Facilities connect to the Public Utility's Interconnection Facilities, except Public Utility owns and maintains, at Interconnection Customer's expense, relay facilities installed at the Interconnection Customer's Generating Facility. See Attachment 2.



(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

#### Attachment 2

One-line Diagram Depicting the Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades







(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

#### Attachment 3

#### Milestones

Critical milestones and responsibility as agreed to by the Parties:

#### Milestone/Date

#### Responsible Party

- (1) Execute Generator Interconnection Agreement and
  Provide initial \$10,000 deposit (deposit provided January 18, 2013):
  March 11, 2012 Interconnection Customer
- (2) Commence Engineering: March 29, 2013

**Public Utility** 

(3) Order Long Lead Equipment: June 24, 2013

Public Utility

(4) In-Service Date (Backfeed): February 24, 2014

Public Utility/Interconnection Customer

Interconnection Customer shall request permission for Backfeed in writing, including by e-mail, and wait to receive written permission from the Public Utility.

(5) Initial Synchronization Date: March 1, 2014

Interconnection Customer

Interconnection Customer shall request permission for initial synchronization in writing, including by e-mail, and wait to receive written permission from the Public Utility.

(6) Commercial Operation Date: March 14, 2014

Interconnection Customer

Interconnection Customer shall request permission for Commercial Operation in writing, including by e-mail, and wait to receive written permission from the Public Utility.

Progress Payment Schedule (See Article 4.6):

Interconnection Customer shall make five (5) Payments of \$35,799.60 each commencing thirty (30) Calendar Days after the date for providing the initial \$10,000 deposit and every sixty (60) Calendar Days thereafter. (Initial \$10,000 and first payment of \$35,799.60 made prior to agreement execution)



#### Attachment 4

Additional Operating Requirements for the Public Utility's
Transmission System and/or Distribution System and Affected Systems Needed to Support the
Interconnection Customer's Needs

The interconnection of the Small Generator Facility is subject to the rules contained within OAR 860 division 82. The interconnection of the Small Generator Facility to the Public Utility's Distribution System shall be subject to, and the Interconnection Customer shall operate the Small Generating Facility in accordance with, the Public Utility's policies governing interconnection of generation facilities to the distribution system entitled "Facility Connection (Interconnection) Requirements for Distribution Systems (34.5 kV and below)" which policy document is available upon request from the Public Utility and is incorporated by this reference as part of the Interconnection Agreement between the Parties. The interconnection of the Small Generator Facility to the Public Utility's Transmission System shall be subject to, and the Interconnection Customer shall operate the Small Generating Facility in accordance with, the Public Utility's policies governing interconnection of generation facilities to the transmission system entitled "Facility Connection (Interconnection) Requirements for Transmission Systems (46 kV and above)" which policy document is available upon request from the Public Utility and is incorporated by this reference as part of the Interconnection Agreement between the Parties. In the event of a conflict between any aspect of this Attachment 4 (including without limitation the Public Utility's policies governing interconnection of generation facilities to the distribution system or the transmission system) and the rules contained in OAR 860, division 82, the rules shall prevail.

<u>Parallel Operation</u>. Interconnection Customer may operate the Generating Facility in parallel with the Public Utility's Transmission System or Distribution System (collectively the "T&D System"), but subject at all times to any operating instructions that the Public Utility's dispatch operators may issue and in accordance with all the provisions of this Interconnection Agreement and Good Utility Practice, and any other conditions imposed by the Public Utility in its sole discretion.

Generating Facility Operation Shall Not Adversely Affect the Public Utility's T&D System. Interconnection Customer shall operate the Generating Facility in such a manner as not to adversely affect the Public Utility's T&D System or any other element of the Public Utility's electrical system. Interconnection Customer's Generating Facility shall deliver not more than the Design Capacity of 1750 kW. Except as otherwise required by this Interconnection Agreement, Interconnection Customer shall operate the Generating Facility in a manner compatible with the Public Utility's applicable voltage level and fluctuating voltage guidelines, entitled Facility Connection (Interconnection) Requirements for Distribution Systems (34.5 kV and below), as it may be amended or superseded from time to time in the Public Utility's reasonable discretion, at the Point of Interconnection during all times that the Generating Facility is connected and operating in parallel with the Public Utility's T&D System. In its sole discretion, the Public Utility may specify rates of change in Interconnection Customer's deliveries to the Public Utility's T&D System during any start-up of the Generating Facility, during reconnection to the Public Utility's T&D System, and during normal operations to assure that such rates of change are compatible with the operation of the Public Utility's voltage regulation equipment.



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Maximum Authorized Power Flow. The Generating Facility shall not be operated in a manner that results in the flow of electric power onto the Public Utility's T&D System during any fifteen (15) minute interval at levels in excess of 2030 kVA from the Generating Facility. If this provision is violated, the Public Utility may terminate this Interconnection Agreement or lock the Interconnection Customer Disconnect Switch in the open position until such time as: (a) the Public Utility has studied the impact of additional generation on the T&D System (at Interconnection Customer's cost and pursuant to a new study agreement between the Public Utility and Interconnection Customer) and the interconnection has been upgraded (at Interconnection Customer's cost and pursuant to a new or amended Facilities Construction Agreement and a new or amended Interconnection Agreement if deemed necessary by the Public Utility) in any manner necessary to accommodate the additional generation; or (b) the Interconnection Customer has modified the Generating Facility or Interconnection Customer's Interconnection Facilities in such manner as to insure to the Public Utility's satisfaction that the Generating Facility will no longer cause electric power to flow onto the Public Utility's T&D System at a level in excess of 2030 kVA.

<u>Harmonic Distortion or Voltage Flicker.</u> Notwithstanding the Study Results, upon notice from the Public Utility that operation of the Generating Facility is producing unacceptable harmonic distortions or voltage flicker on the Public Utility's T&D System, Interconnection Customer shall at its sole cost remedy such harmonic distortions or voltage flicker within a reasonable time.

<u>Reactive Power.</u> Interconnection Customer shall at all times control the flow of reactive power between the Generating Facility and the Public Utility's T&D System within limits established by the Public Utility. The Public Utility shall not be obligated to pay Interconnection Customer for any Kvar or Kvar Hours flowing into the Public Utility's T&D System.

Islanding. If at any time during the term of this Interconnection Agreement the interconnection of the Generating Facility to the Public Utility's T&D System results in a risk of electrical islanding, or actual occurrences of electrical islanding, which the Public Utility reasonably concludes are incompatible with Good Utility Practice, the Parties shall (as necessary) study the issue and implement a solution that will eliminate or mitigate the risk of electrical islanding to a level deemed acceptable by the Public Utility. All costs associated with addressing any electrical islanding problems as required by this paragraph shall be paid by the Interconnection Customer, including without limitation any study costs, engineering costs, design costs, or costs to procure, install, operate and/or maintain required interconnection facilities or protective devices.

<u>Voltage Regulation</u>. The Interconnection Customer agrees to operate at a  $\pm$  95%, leading or lagging power factor. Prior to installation, Interconnection Customer shall provide the Public Utility with written notice of the device and/or operational constrains selected to satisfy this requirement and shall obtain the Public Utility's written approval of such device and/or operational constraints, which approval shall not be unreasonably withheld. In the event Interconnection Customer fails to operate the Generating Facility within the voltage regulation constraints of this requirement, the Public Utility may disconnect the Generating Facility.



Modification of Nominal Operating Voltage Level. By providing Interconnection Customer with a one hundred and eighty (180) day notice, the Public Utility may at its sole discretion change the Public Utility's nominal operating voltage level at the Point of Interconnection. In the event of such change in voltage level Interconnection Customer shall, at Interconnection Customer's sole expense, modify Interconnection Customer's Interconnection Facilities as necessary to accommodate the modified nominal operating voltage level. Interconnection Customer has been informed that initial use of a dual voltage Interconnection Customer may ameliorate the cost of accommodating a change in nominal operating voltage level.

Equipment Failure. Interconnection Customer acknowledges that it is responsible for repair or replacement of Interconnection Customer's primary transformer and for any and all other components of the Generating Facility and the Interconnection Customer's Interconnection Facilities. Interconnection Customer is aware that its inability to timely repair or replace its transformer or any other component of the Generating Facility or Interconnection Customer's Interconnection Facility could result in Interconnection Customer's inability to comply with its responsibilities under this Interconnection Agreement and could lead to disconnection of the Generating Facility from the Public Utility's T&D System and/or termination of this Interconnection Agreement pursuant to the terms of this Interconnection Agreement. Interconnection Customer acknowledges that the risk of this result is born solely by Interconnection Customer and may be substantially ameliorated by Interconnection Customer's elective maintenance of adequate reserve or spare components including but not limited to the Interconnection Customer's primary transformer.

Operation and Maintenance of Facilities Not Owned by the Public Utility. Interconnection Customer shall maintain, test, repair, keep accounts current on, or provide for the proper operation of any and all interconnection facilities, including but not limited to telemetry and communication equipment, not owned by the Public Utility.

Metering and Telemetry Communications Equipment. Notwithstanding any language of OAR 860-082-0070, Transmission Provider shall not require Interconnection Customer to install a redundant or back-up meter or other telemetry communications equipment. However, Transmission Provider reserves the right to request that the Oregon Public Utility Commission authorize Transmission Provider to require Interconnection Customer to be responsible for all reasonable costs associated with redundant metering and communications equipment installed at the Small Generating Facility, upon a determination by Transmission Provider that such equipment is necessary to maintain compliance with the mandatory reliability standards enforced by the North American Electric Reliability Corporation and the Western Electricity Coordinating Council.

<u>Interconnection Customer's ability to enjoy full ownership of their power distribution system.</u>

Notwithstanding the utility's right to protect its customers and systems through lockout of the generation as allowed herein, nothing herein shall otherwise affect or impair the Interconnection Customer's full use, benefit and enjoyment of the Interconnection Customer's electrical equipment and facilities.





#### Attachment 5

### Public Utility's Description of its Upgrades and Best Estimate of Upgrade Costs

Upgrades to Public Utility's Distribution include Relaying and communications modifications at Public Utility's Lakeport Substation. The estimated cost of the upgrades directly assigned to the Interconnection Customer is \$108,917.



(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

#### Attachment 6

#### Scope of Work

The following outlines the design, procurement, installation, testing and ownership of equipment for Interconnection Customer's Geothermal Generation Facility. The protection scheme is intended to serve as a basis for this project and for the Interconnection Customer's separate project NMQ006, a Solar Generation project, which will be completed before the geothermal facility is installed and operational.

The work consists of installing the relay panel to detect fault on the 12 kV line, receive transfer trip, and monitor the magnitude and frequency of the voltage. There will be fiber communications from the customer's solar facility to the customer's geothermal facility, with radio communications from the customer to the Public Utility's Lakeport substation. Receipt of transfer trip from Lakeport will key transfer trip to the geothermal plant.

#### INTERCONNECTION CUSTOMER'S GENERATION FACILITY

The following outlines the design, procurement, installation, testing and ownership of equipment for Interconnection Customer's Generation Facility.

#### INTERCONNECTION CUSTOMER WILL BE RESPONSIBLE FOR

- Installing necessary equipment to allow for the interconnection of the Q-0414 project on to the existing distribution circuit (5L49) out of the Lakeport Substation.
- Installing a line protection panel.
- Providing (2) communications ("comm.") radios
- Providing tower, pole, or other structure suitable for mounting antenna and waveguide for a com radio that will provide line-of-site to the Public Utility's Lakeport Substation.
- Providing space in OIT solar project building for mounting a comm. radio.
- Optical fiber from the OIT solar project to OIT geothermal project.
- The work consists of installing the relay panel to detect fault on the 12 kV line, receive transfer trip, and monitor the magnitude and frequency of the voltage. Receipt of transfer trip from Lakeport will key transfer trip to the geothermal plant.

The work consists of installing the relay panel to control the customer's breakers and setting the distance relay function for phase faults due to the variable number of generators in service. Set to operate instantaneously for all faults on the feeder.

This work will require the following equipment/materials:

 1 – PL 351 line protection panel with one of the SEL 321 relays replaced with an SEL 351A relay



(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

#### PUBLIC UTILITY WILL BE RESPONSIBLE FOR

- Fault analysis to be completed by Protection and Control Engineer
- Engineer relay settings to be used by Interconnection Customer in order to selectively trip generators in order to avoid disconnection of attached load
- Install and own a communications radio system for relay communication at Lakeport Substation
- Install and own a fiber optic modem for relay communication to OIT Geothermal site
- Make connections from radio and fiber modem to protection relay
- Design, Installation and Ownership of bi-directional revenue grade meters and associated instrument transformers to be located at the POI

#### PUBLIC UTILITY'S SUBSTATION

The following outlines the design, procurement, installation, testing and ownership of equipment for Public Utility's Distribution Circuit.

#### INTERCONNECTION CUSTOMER WILL BE RESPONSIBLE FOR

The Interconnection Customer will be financially responsible for the engineering, procurement and installation of required panels and/or special equipment in the Public Utility's Lakeport Substation in Klamath Falls Oregon.

#### PUBLIC UTILITY WILL BE RESPONSIBLE FOR

The work will consist of installing three voltage transformers, (3) Feeder Protection relays. The new relays will be installed in the available positions of rack #8 in the existing control house during the first phase of construction for the Interconnection Customer's solar facility.

Public Utility will be responsible for the installation and ownership of control cables (direct buried) from the instrument transformers; backfill and compact the new trenches; replace yard finish rock with new as required. In addition, Public Utility will modify the existing overhead feeder structure as required to allow for the mounting of the three (3) 12.5kV potential transformers. The ground wires will be extended to the case of each new PT.

At the Public Utility's Lakeport substation, the Public Utility will:

- Complete a fault duty analysis for the proposed interconnection
- Implement Hot Line Blocking for the reclosing for breaker 5L49
- Replace the relays on 5L49, add directional over-current relays on the low side of the transformers. Transfer trip to the power plants. The relays for 5L49 will monitor the line side VT and delay reclosing until the line is dead.



(Small Generator Facilities with Electric Nameplate Capacities of 10MW or less)

- Install and own (3) Feeder Protection relays: one in the place of a DPU on panel 8, one on the blank plate on panel 2 and one on the blank plate on panel 4. The two relays on the low side of the transformer will use the CT 4 and 15. These relays will trip the bus tie breaker and send transfer trip to both the solar and the geothermal generation.
- Install and own a tower or pole with line-of-site to Interconnection Customer's solar site
- Install and own communications radio system
- Install and own DC-DC Converters for radio system
- Make connection from protection relays to radio system

This work at the Public Utility's Lakeport substation will require the following equipment/materials:

This work will require, at a minimum, the following equipment/materials:

- 3 protection relays
- 2- fiber optic transceivers
- 1 communications radio with antenna and waveguide
- 2 DC DC converters (to power the radios)
- (3)- 12 kV voltage transformers
- Ground wire for all new equipment
- Control cable for all new equipment
- A new cross-member on the existing overhead get-away feeder structure as required to allow for the mounting of the three (3) new 12.5 kV instrument transformers.