

**VIA ELECTRONIC MAIL**

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October 14, 2005

Ms. Carole J. Washburn  
Executive Secretary  
Washington Utilities and Transportation Commission  
P.O. Box 47250  
Olympia, WA 98504-7250

**RE: Comments of the Washington Load-serving Utilities  
Docket No. UE-051106  
Standards for Interconnection to Electric Utility Delivery Systems**

Dear Ms. Washburn:

This filing sets forth the joint response of a group of utilities to the Notice of Opportunity to File Written Comments, dated August 16, 2005, in the above-referenced docket. This group consists of a large number of electric utilities from across Washington including: the three investor-owned utilities (hereinafter the "Jurisdictional Utilities") regulated by the Washington Utilities and Transportation Commission ("WUTC" or "Commission"); and public utility districts, mutual corporations, electric cooperatives, and municipal electric utilities (collectively the "Non-jurisdictional Utilities").

The Non-jurisdictional Utilities comprise a number of electric utilities from a public power working group that is known for purposes of this filing as the Public Power Ad-Hoc Interconnection Standards Committee ("PPAISC" or "Committee"). The PPAISC was formed to develop recommendations for uniform interconnection standards for their respective governing boards to consider and potentially adopt. Working members of the PPAISC include staff representatives from the following utilities and trade organizations, respectively: Benton Rural Electric Association, Big Bend Rural Electric Coop, Chelan County PUD, City of Port Angeles, Clark Public Utilities, Elmhurst Mutual, Grant County PUD, Kittitas County PUD, Lewis County PUD, Seattle City Light, Snohomish County PUD, Tacoma Power, and; the Washington PUD Association, the

Association of Washington Cities, and the Washington Rural Electric Cooperative Association.<sup>1</sup> As a group, the Jurisdictional and Non-jurisdictional Utilities joining this filing serve a large percentage of the retail load across the state and thus are referred to collectively in this filing as the “Washington Load-serving Utilities.” The Washington Load-serving Utilities appreciate the opportunity to participate in this rulemaking process.

## **BACKGROUND**

Over the past several years there have been a number of state and federal initiatives related to both generator interconnection and the development of renewable energy resources. A brief review of these various initiatives follows to provide the background and context for the comments filed in this docket.

### **Washington State Initiatives**

Washington law requires all Electric Utilities<sup>2</sup> in the state to make net metering of electricity available to customer-generators, subject to certain qualifications. See Chapter 80.60 RCW. The net metering requirement is limited to certain renewable resources (fuel cells or generators fueled by solar, wind, or hydropower) with a generating capacity of not more than 25 kilowatts. RCW 80.60.010. The statute also requires the customer-generator to pay the costs of interconnection including “all equipment necessary to meet applicable safety, power quality, and interconnection requirements established by [standardized electrical and safety codes].” RCW 80.60.040(1). The Commission (for the Jurisdictional Utilities) and the appropriate governing body (for each Non-jurisdictional Utility) are authorized to “adopt by regulation additional safety, power quality, and

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<sup>1</sup> The PPAISC requests that the Commission take note that the PPAISC is submitting this filing in response to the Commission’s August 16, 2005 “Notice of Opportunity to File Written Comments RE: Standards for Interconnection to Electric Utility Delivery Systems,” Docket No. UE 051106, for the Commission’s informational purposes only and are not, voluntarily or otherwise, submitting to WUTC jurisdiction for this docket. The PPAISC notes in the Commission’s August 16 Notice of Opportunity that the Commission, “to facilitate uniformity . . . invites participation in its inquiry by municipal utilities and public utility districts *not* jurisdictional to the Commission” (italics added), recognizes that participation or filing for informational purposes by non-jurisdictional utilities in this docket is not inviting or agreeing to jurisdiction in this docket or any other docket.

<sup>2</sup> The term “Electric Utility” is defined in RCW 80.60.010(5) as “any electrical company, public utility district, irrigation district, port district, electric cooperative, or municipal electric utility that is engaged in the business of distributing electricity to retail customers in the state.”

interconnection requirements for customer-generators that the commission or governing body determines are necessary to protect public safety and system reliability.” RCW 80.60.040(2). Finally, Electric Utilities are precluded from imposing any requirements beyond those permitted in subsections (1) and (2) of RCW 80.60.040 as described above. RCW 80.60.040(3).

The Legislature has also established a state policy to encourage the Jurisdictional Utilities to procure electric power resources from renewable sources via the use of incentives. RCW 80.28.025. On May 6, 2005, Governor Gregoire approved Substitute Senate Bill 5101, Chapter 300, Laws of 2005, (SSB 5101) to be effective July 1, 2005. This statute is intended, among other things, to provide “incentives to support renewable energy.” However, SSB 5101 delayed the effectiveness of the incentives payment program until “light and power businesses serving eighty percent of the total customer load in the state adopt uniform standards for interconnection to the electric distribution system.” 2005 Wash. Laws, Ch. 300, Sec. 3, § 2. “Standards for interconnection to the electric distribution system” is defined as “technical, engineering, operational, safety, and procedural requirements for interconnection to the electric distribution system of a light and power business.” 2005 Wash. Laws, Ch. 300, Sec. 2, § 8. “Uniform standards for interconnection . . . . means those standards established by light and power businesses that have ninety percent of total requirements the same. 2005 Wash. Laws, Ch. 300, Sec. 3, § 2.

### **Federal Initiatives**

In May 2005, FERC issued Order No. 2006 establishing regulations under the Federal Power Act governing the interconnection of small wholesale generation devices (devices with capacity of no more than 20 MW) to FERC-jurisdiction transmission or distribution systems. In that order, FERC expressed its “hope . . . that states may find this rule helpful in formulating their own interconnection rules.”

Section 1254 of the Energy Policy Act of 2005 (effective August 8, 2005) amends Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (PURPA) to add the following interconnection requirements:

Each electric utility shall make available, upon request, interconnection service to any electric consumer that the electric utility serves. . . . Interconnection services shall be offered based upon the standards developed by the Institute of Electrical and Electronics Engineers: IEEE Standard 1547 . . . . In addition, agreements and procedures shall be established whereby the services offered shall promote

current best practices of interconnection for distributed generation, including but not limited to practices stipulated in model codes adopted by associations of state regulatory agencies. All such agreements and procedures shall be just and reasonable, and not unduly discriminatory or preferential.

The Energy Policy Act further requires each state regulatory authority (for the Jurisdictional Utilities) and each non-jurisdictional utility, not later than two years after the date of the enactment of the Act, to complete consideration and to “make a determination” regarding the interconnection standards, procedures and agreements referred to in PURPA Section 111(d).

### COMMENTS

The above-described initiatives have created a patchwork of requirements that may affect various utilities or classes of utilities differently. However, there are some broad themes that can be gleaned from looking at these various initiatives. These themes include: utilities must make interconnection services available; agreements and procedures must be established; state regulatory authorities and governing bodies of non-jurisdictional utilities shall make determinations on interconnection standards; and consistency of interconnections standards across all (or almost all) Electric Utilities is necessary to capture the benefits under SSB 5101. It is on this basis that the Washington Load-serving Utilities have been working together to develop a set of uniform “standards for interconnection to the electric distribution system.”<sup>3</sup>

This ad hoc group has worked together to develop, for recommendation to the appropriate regulatory authority or governing board, a uniform set of interconnection standards for all generator interconnections with a capacity of 25 kW or less.<sup>4</sup> This document is attached. The attached

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<sup>3</sup> Much of the existing conversation regarding interconnection requirements at both the state and federal level involves discussion of “interconnection standards”; when used in general discussion the Washington Load-serving Utilities understand the term “interconnection standards” to refer to the entire area of interconnection regulation which can be, and often is, sub-divided into three categories: (i) interconnection procedures; (ii) interconnection-related agreements; and (iii) technical standards or requirements regarding the interconnection of generation devices to utility transmission or distribution systems.

<sup>4</sup> The members of the PPAISC are volunteering their expertise in developing recommendations to public power or consumer owned utilities, but are not representing that their respective utilities are endorsing any proposal that the PPAISC develops. That endorsement will only come if and when the governing board of each public power utility adopts, in whole or in part, the recommendations of the Committee. However, the PPAISC is committed to facilitating uniformity and is willing to work with the utilities that are under the Commission’s jurisdiction as

Interconnection Standards document consists of General Conditions, Technical Specifications, and Definitions which the group developed as a set of uniform interconnection standards that could be used by all utilities without major modification. The Appendices are related documents that the group believes may of necessity vary utility-by-utility and are included as examples that each utility could utilize as is, or modify to meet unique circumstances for each utility without affecting the uniformity of the technical standards.

### **Process Discussion**

#### ***Generators with a Capacity of 100 kW or Less***

The Washington Load-serving Utilities believe that the process used to develop a consistent set of standards for facilities of 25 kW or less worked well and believe that state-wide uniform standards for interconnecting generators with a capacity of 100 kW or less can be achieved in a relatively expeditious manner utilizing the same process. Accordingly, we have agreed to continue to meet to develop uniform standards for generator capacities up to 100 kW as the next logical incremental facility size. Should the Commission agree that this is an adequate process for the Jurisdictional Utilities to develop interconnection standards, and approve, for the Jurisdictional Utilities, the 25 kW standard in a form substantially similar to those submitted by the Washington Load-serving Utilities, the parties propose to issue monthly progress reports to the Commission and respective public power trade associations (for dissemination to their public power members) on the status of development of uniform interconnections standards for facilities up to 100 kW. Based upon the timing and content of the Commission's response to this filing, the first monthly progress report issued after the Commission's response to this filing would offer a date to submit the 100 kW standards.

#### ***Generators with a Capacity of Greater Than 100 kW***

Additionally, we believe that consensus may be possible on larger generator interconnections (beyond 100 kW), even given the increased technical complexity inherent in their interconnection to the system. Given the short time frame established in Section 1254 of the Energy Policy Act of 2005 that includes addressing potentially larger generator interconnections, the Washington Load-serving Utilities are willing to continue to work on standards for larger generators

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this docket moves forward in an attempt to develop a set of uniform interconnection standards for utilities in the state.

with a capacity greater than 100 kW. To develop interconnection standards for larger generators, a number of models that could be analyzed by the work group for larger generators and recommended to the Commission as a starting point, and we point out three possibilities here.

FERC Standard Option. While there is no over-riding reason that non-FERC jurisdictional interconnections need to be consistent with the FERC standards, the FERC documents may be an acceptable starting point from which to develop standard documents. The FERC process was developed to address interconnection in the context of wholesale wheeling and it is presently unclear whether the FERC process provides an appropriate model for state-level interconnection regulations which must address various forms of interconnection not addressed by the FERC rule, including Qualifying Facility interconnections, load interconnections, and/or parallel no-sale interconnections. Given the recent vintage of the FERC rules and their imprecise fit for the types of interconnections to be addressed by state-level interconnection regulations, the Washington Load-serving Utilities are unable to determine at this juncture whether the FERC regulations provide an appropriate model for state regulation.

Utility Standard Option. Each of the three investor-owned utilities and some Non-jurisdictional Utilities have developed their own version of interconnection standards that might be used as a reference base. The utilities could pull the best features from each version and meld them into one version that could be used by all utilities.

General Guidelines with Individual Standards Option. Another model would involve the WUTC issuing a rule or interim order setting, or preferably asking the ad hoc committee to recommend to the Commission for review and approval, general conditions and technical specifications for interconnection standards, with example process guidelines and interconnection agreements, while allowing each jurisdictional utility to develop their own process and agreements to file with the Commission for approval. This approach has the advantage of ultimately allowing the WUTC to establish consistent interconnection standards while allowing each Jurisdictional Utility the flexibility to develop the related procedures and agreements that best meet the increasing complexities of interconnection requests for larger generators and each utility's unique circumstances. Each of these options has variable advantages and disadvantages for each utility and the Commission.



**CONCLUSION**

The Washington Load-serving Utilities hope these comments are helpful as the Commission considers development of the interconnection rules. If you have any questions regarding these comments or if we can be of any other assistance, please contact any of the undersigned parties.

Sincerely,

**Puget Sound Energy, Inc.**

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# **INTERCONNECTION STANDARDS**

## **And Related Documents**

**For**

### **CUSTOMER-OWNED GENERATING FACILITIES**

**25 kW OR Less**

**(NAME OF UTILITY)**

**(EFFECTIVE DATE)**

# Interconnection Standards and Related Documents

## Generating Facilities 25 kW or Less

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# INTERCONNECTION STANDARDS

## CUSTOMER-OWNED GENERATING FACILITIES 25 KILOWATTS OR LESS

### Chapter 1: General Conditions

This document states the general conditions and requirements and technical specifications for the safe and reliable operation of interconnected customer-owned generating facilities, 25 kW or less in capacity, that are intended to generate energy to serve all or a part of the customer's load or for purchase by the distribution utility company (the Utility).

**Note:** Capitalized terms shall have the meaning of the word as defined in Chapter 3, Definitions.

- A. Electrical Generating Systems (25kW and Smaller)**  
Any electrical generating facility with a maximum electrical generating capacity of 25 kW or less must comply with these standards to be eligible to connect and operate in parallel with the Utility's distribution system.
- B. Application**  
Each customer seeking to interconnect qualifying generation will fill out and submit the application form (Appendix A) to the Utility. Information must be accurate, complete, and approved by the Utility prior to installing the generating facility.
- C. Application Fees**  
Customers will be charged an interconnection application fee of \_\_\_\_\_ (typically no more than \$100)
- D. Application Prioritization**  
All generation interconnection requests for facilities 25 kW or less from customers will be prioritized by the Utility the same as any new load requests. Preference will not be given to either request type. The Utility will process the application and provide interconnection in a time frame consistent with the average of other service connections.
- E. Interconnection Service Agreement**  
Prior to interconnection all qualifying customers will obtain a Certificate of Completion (Appendix B) and sign an appropriate Interconnection Service Agreement. (See Appendix C). This Agreement between the Utility and Customer outlines the interconnection standards, billing and revenue agreements, and on-going maintenance and operation requirements.
- F. Unauthorized Connections.**  
For the purposes of public and working personnel safety, any non-approved generation interconnections discovered will be immediately disconnected from the Utility system.

**G. Technical Specifications**

All technical specifications are contained in Chapter 2.

**H. Dedicated Distribution Transformer.**

To ensure reliable service to all Utility customers and to minimize possible problems for other customers, the Utility will review the need for a dedicated-to-single-customer distribution transformer. Interconnecting generation under 25kW may require a separate transformer. If the Utility requires a dedicated distribution transformer, the Customer shall pay for all costs of the new transformer and related facilities.

**I. Metering**

**Net Metering for Solar, Wind, Hydropower and Fuel Cells as set forth in RCW**

**80.60:** The Utility shall install, own and maintain a kilowatt-hour meter, or meters as the installation may determine, capable of registering the bi-directional flow of electricity at the Point of Common Coupling at a level of accuracy that meets all applicable standards, regulations and statutes. The meter(s) may measure such parameters as time of delivery, power factor, voltage and such other parameters as the Utility shall specify. The customer shall provide space for metering equipment. It will be the customer's responsibility to provide the current transformer enclosure (if required), meter socket(s) and junction box after the customer has submitted his/her drawings and equipment specifications for Utility approval. The Utility may approve other generating sources for net metering but is not required to do so.

**Production Metering:** The Utility may require separate metering for production. This meter will record all generation produced and may be billed separately from any net metering or customer usage metering. All costs associated with the installation of production metering will be paid by the customer.

**J. Labeling.**

Common labeling furnished or approved by the Utility and in accordance with NEC requirements must be posted on meter base, disconnects, and transformers informing working personnel that generation is operating at or is located on the premises.

**K. Insurance & Liability**

As currently set forth for qualifying generation under RCW 80.60, for solar, wind, hydro or fuel cells no additional insurance will be necessary. For other generation facilities permitted under these standards but not contained within RCW 80.60, additional insurance and indemnification may be required. Qualifying generation must meet these interconnection standards and maintain compliance with these standards during operation.

**L. Future Modification or Expansion.**

Prior to any future modification or expansion of the customer-owned generating facility, the customer will obtain Utility review and approval. The Utility reserves the right to require the customer, at the customer's expense, to provide corrections or additions to existing electrical devices in the event of modification of government or industry regulations and standards.

**M. Utility System Capacity**

For the overall safety and protection of the Utility system RCW 80.60 currently limits interconnection of generation for net metering to 0.1% of the Utility's peak demand during 1996. Additionally, interconnection of qualified customer-owned generation to individual distribution feeders will be limited to 10% of the feeder's peak capacity. However, it is at the discretion of the Utility to allow additional generation interconnection beyond these stated limits.

**N Customer-Owned Equipment Protection**

It is the responsibility of the customer to protect their facilities, loads and equipment and comply with the requirements of all appropriate standards, codes, statutes and authorities.

**O. Interconnection Costs**

Additional costs above and beyond the application fee, if any, will be cost based and applied as appropriate. For example costs may be incurred for transformers, production meters, and Utility testing, qualification, and approval of non UL 1741 listed equipment.

## **Chapter 2: Technical Specifications**

This Chapter sets forth the technical specifications and conditions that must be met to interconnect non-Utility-owned electric generation, 25 kW or less, for parallel operation with the distribution system of **(Name of Utility)**. For purposes of these Standards, the interconnecting entity shall be designated Customer, and **(Name of Utility)** as Utility.

### **A. General Interconnection Requirements**

1. Any Facility desiring to interconnect with the Utility distribution system or modify an existing interconnection must meet all minimum technical specifications applicable, in their most current approved version, as set forth in this Chapter.
2. The specifications and requirements listed herein are intended to mitigate possible adverse impacts caused by the Facility on Utility equipment and personnel and on other customers of the Utility. They are not intended to address protection of the Facility itself or its internal load. It is the responsibility of the Facility to comply with the requirements of all appropriate standards, codes, statutes and authorities to protect itself and its loads.
3. The specifications and requirements listed herein shall apply generally to the non-Utility-owned electric generation equipment to which this standard and agreement(s) apply throughout the period encompassing the Customer's installation, testing and commissioning, operation, maintenance, decommissioning and removal of said equipment. The Utility may verify compliance at any time, with reasonable notice.
4. The Customer shall comply with the requirements in Sections 4(a), 4(b) and 4(c). However, at its sole discretion, the Utility may approve alternatives that satisfy the intent of, and/or may excuse compliance with, any specific elements of these requirements.
  - a) **Code and Standards.** Customer shall conform to all applicable codes and standards for safe and reliable operation. Among these are the National Electric Code (NEC), National Electric Safety Code (NESC), the Institute of Electrical and Electronics Engineers (IEEE), American National Standards Institute (ANSI), and Underwriters Laboratories (UL) standards, and local, state and federal building codes. The Customer shall be responsible to obtain all applicable permit(s) for the equipment installations on their property.
  - b) **Safety.** All safety and operating procedures for joint use equipment shall be in compliance with the Occupational Safety and Health Administration (OSHA) Standard 29, CFR 1910.269, the NEC, Washington Administrative Code (WAC) rules, the Washington Industrial Safety and Health Administration (WISHA) Standard, and equipment manufacturer's safety and operating manuals.
  - c) **Power Quality.** Installations will be in compliance with all applicable standards including IEEE Standard 519-1992 Harmonic Limits.

### **B. Inverter-Based Interconnection Requirements, as Applicable**

- IEEE Std 1547-2003 Standard for Interconnecting Distributed Resources with Electric Power Systems

- UL Standard 1741, Inverters, Converters, and Controllers for Use in Independent Power Systems - Equipment must be UL listed.
- IEEE Standard 929-2000, IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

### C. Non-Inverter-Based Interconnection Requirements

The Application for such Interconnection may require more detailed Utility review, testing, and approval, at Customer cost, of the equipment proposed to be installed to ensure compliance with applicable standards including:

- IEEE Std 1547-2003 Standard for Interconnecting Distributed Resources with Electric Power Systems
- ANSI Standard C37.90, IEEE Standard for Relays and Relay Systems Associated with Electric Power Apparatus
- Customers proposing such interconnection may also be required to submit a power factor mitigation plan for Utility review and approval.

### D. Specific Interconnection Requirements

- 1. Visible/Lockable Disconnect.** Customer shall furnish and install on Customer's side of the meter a UL approved safety disconnect switch which shall be capable of fully disconnecting the Customer's energy generating equipment from Utility electric service. The disconnect switch shall be located adjacent to Utility meters and shall be of the visible break type in a metal enclosure which can be secured by a padlock. The disconnect switch shall be accessible to Utility personnel at all times.

This requirement may be waived by the Utility if: (1) Customer provides interconnection equipment that Customer can demonstrate, to the satisfaction of Utility, performs physical disconnection of the generating equipment supply internally; and, (2) Customer agrees that its service may be disconnected entirely if generating equipment must be physically disconnected for any reason.

The Utility shall have the right to disconnect the Facility at the disconnect switch: when necessary to maintain safe electrical operating conditions; if the Facility does not meet required standards; or if the Facility at any time adversely affects Utility's operation of its electrical system or the quality of Utility's service to other customers.

- 2. Voltage and Phasing.** Nominal voltage and phase configuration of Customer generation must be compatible to the Utility system at the Point of Common Coupling (PCC).
- 3. Interconnection to secondary Network Distribution Systems.** Customer must provide evidence that their generation will never result in reverse current flow through the Utility's Network Protectors. All instances of interconnection to secondary Distribution Networks shall require review and written pre-approval by Utility. Interconnection to distribution secondary area networks is not allowed. Closed Transition Transfer Switches are not allowed in secondary Network Distribution Systems.

### **Chapter 3: Definitions**

The following words and terms shall be understood to have the following meanings when used in the General Conditions and Technical Specifications of the Interconnection Standards.

**Application:** The notice provided by Customer to the Utility, which initiates the interconnection process.

**Certificate of Completion:** Form completed by Customer and the electrical inspector having jurisdiction over the installation indicating completion of installation and inspection.

**Customer:** Entity who owns and/or operates the Facility interconnected to the Utility distribution system.

**Facility, also referred to as Electrical Generating System (EGS):** A source of electricity owned by the Customer that is located on the Customer's side of the PCC, and all facilities ancillary and appurtenant thereto, including interconnection equipment, which the Customer requests to interconnect to the Utility's distribution system.

**In-Service Date:** The date on which the Facility and System Modifications (if applicable) are complete and ready for service, even if the Facility is not placed in service on or by that date.

**Interconnection Service Agreement:** An agreement for interconnection service between the Customer and the Utility. The agreement also includes any amendments or supplements thereto entered into by the Customer and the Utility.

**Net Metering:** As defined in RCW 80.60.010, means "measuring the difference between the electricity supplied by an electric utility and the electricity generated by a customer-generator that is fed back to the electric utility over the applicable billing period."

**Network Distribution System (Area or Spot):** Electrical service from a distribution system consisting of one or more primary circuits from one or more substations or transmission supply points arranged such that they collectively feed secondary circuits serving one (a spot network) or more (an area network) utility customers.

**Point Of Common Coupling (PCC):** The point where the Customer's local electric power system connects to the Utility distribution system, such as the electric power revenue meter or at the location of the equipment designated to interrupt, separate or disconnect the connection between the Customer and Utility. See the Utility for the location at a particular Customer site.



## APPENDIX A (Example 1 of 2)

### Application for Interconnecting a Generating Facility No Larger than 25kW

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

#### Processing Fee

A non-refundable processing fee of \_\_\_\_\_ must accompany this Application

#### Interconnection Customer

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

#### Contact (if different from Interconnection Customer)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Owner of the facility (include % ownership by any electric utility): \_\_\_\_\_

#### Generating Facility Information

Location (if different from above): \_\_\_\_\_

Electric Service Company: \_\_\_\_\_

Account Number: \_\_\_\_\_

Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_

Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts)

Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA)

Prime Mover: Photovoltaic \_\_\_ Reciprocating Engine \_\_\_ Fuel Cell \_\_\_ Turbine \_\_\_ Other \_\_\_

Energy Source: Solar \_\_\_ Wind \_\_\_ Hydro \_\_\_ Diesel \_\_\_ Natural Gas \_\_\_ Fuel Oil \_\_\_

Other (describe) \_\_\_\_\_

Is the equipment UL1741 Listed? Yes \_\_\_ No \_\_\_

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

List components of the Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 25 kW and return the Certificate of Completion when the Small Generating Facility has been installed

Signed: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

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Contingent Approval to Interconnect the Generating Facility

(For Company use only)

Interconnection of the Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Company waives inspection/witness test? Yes \_\_\_ No \_\_\_

**APPENDIX A (Example 2 of 2)**

**Application for Interconnection of  
Net Metered Fuel Cell, Solar, Wind, or Hydropower  
Electric Generating Facilities of 25 Kilowatts or Less**

Customer or Company Name: \_\_\_\_\_  
Federal Tax ID or Social Security No. \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: Washington Zip Code: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Email Address: \_\_\_\_\_  
Location of Proposed Power Generator: \_\_\_\_\_

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

**Type of Meter Installation (Choose only one):**

Service to Generator, Single or Three Phase \_\_\_\_\_, AC Volts \_\_\_\_\_  
 New meter base connected to customer's electrical distribution panel, or  
 New meter base and new connection to an existing Utility transformer.

If applicable, Engineering or Design Firm: \_\_\_\_\_

**Contact Person** \_\_\_\_\_ **Phone** \_\_\_\_\_

**Solar PV Type:**

Quantity of Solar PV Panels: \_\_\_\_\_ x Nominal Rating Watts (Each): \_\_\_\_\_ = Total Wattage \_\_\_\_\_  
Solar Panel Manufacturer: \_\_\_\_\_, Model No. \_\_\_\_\_  
Type of Array Mounting:  Fixed  Tracking  
Rated Power Output Qty. of Peak Power  
of Inverter (Watts): \_\_\_\_\_ x Inverters = \_\_\_\_\_ x Output (Watts) \_\_\_\_\_  
Inverter Manufacturer: \_\_\_\_\_, Model No: \_\_\_\_\_  
UL 1741 Listed:  Yes  No

**Wind Turbine:**

Est. Average Wind Speed at Location (if known): \_\_\_\_\_ mph.  
Wind Turbine Manufacturer: \_\_\_\_\_, Model No.: \_\_\_\_\_  
Rated Power Output, Watts: \_\_\_\_\_, at \_\_\_\_\_ mph Wind Speed.  
Inverter Manufacturer: \_\_\_\_\_, Model No: \_\_\_\_\_  
UL 1741 Listed:  Yes  No

**Other Qualified Alternative Energy Generator:**

Describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
UL 1741 Listed:  Yes  No  
If Yes, attach manufacturer's cut-sheet showing UL 1741 listing

**Interconnection Fee (payable when the application is submitted for approval):**

\$100.00 Non-Refundable Processing and Meter Installation fee.

**New Transformer and Line Extension required: (Determined by Utility Engineer)**

Yes  No

**Customer Signature:**

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Net Energy Metering Connection Agreement for Customer Fuel Cell, Solar, Wind, or Hydropower Electric Generating Facilities of 25 Kilowatts or Less.

\_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

This application is only valid for Generating Facilities that meet the codes, standards, and certification requirements of Interconnection Standards for Customer-Owned Generating Facilities 25 kW and Smaller.

**Please return this application to the Utility before purchasing and installing a power generator:**

Utility Name  
Utility Department  
Utility Street Address  
Utility Mailing Address

**All inquiries should be made to:**

Utility: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Utility Web site: www. \_\_\_\_\_ . \_\_\_\_\_

Utility City, State Zip

**For Utility use only**

Distribution list:

- Applicant
- Energy Services
- Customer Accounting
- Customer Service Engineering

Account Number: \_\_\_\_\_  
 Federal Tax ID: \_\_\_\_\_  
 Connection Fees Paid: \_\_\_\_\_ Check No \_\_\_\_\_  
 Customer's Unified \_\_\_\_\_  
 Business Identifier: \_\_\_\_\_

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Net Energy Metering Connection Agreement for Customer Fuel Cell, Solar, Wind, or Hydropower Electric Generating Facilities of 25 Kilowatts or Less, and subject to the following conditions (if any):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Application approved by:

\_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

**APPENDIX B**

**(Example 1 of 2)**

**Generating Facility Certificate of Completion**

Is the Generating Facility owner-installed? Yes \_\_\_\_\_ No \_\_\_\_\_

Interconnection Customer:

\_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Location of the Generating Facility (if different from above):

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Electrician: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

Date Approval to Install Facility granted by the Utility: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Inspection:

The Generating Facility has been installed and inspected in compliance with the local building/ electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

\_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

## APPENDIX B (Example 2 of 2)

### Certificate of Completion - Customer-Owned Generating Facility 25 Kilowatt or Less

Interconnection Customer: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Date the Application Form for Customer-Owned Generating Facilities 25 Kilowatts or Less was approved by (Name of Utility): \_\_\_\_\_

---

#### Electric Inspection (Required on ALL Customer-Owned Generator Installations):

Customer shall not commence parallel operation of the generating facility until Customer obtains all governmental authorizations and permits required for the construction and operation of the electric generating facility and connection facilities, including electrical permit(s). All customer-owned generating facilities must obtain an electrical permit and pass electrical inspection before they can be connected or operated in parallel with (Name of Utility)'s electrical distribution system

Electrical Permit number: \_\_\_\_\_

Is the Customer-Owned Generating Facility owner-installed? Yes \_\_\_\_\_ No \_\_\_\_\_

If no, provide the following information:

Name of Licensed Electrician who performed the work:

\_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

---

#### Completed by Local Electrical Wiring Inspector or Attach Signed Electrical Inspection

I hereby state that the Customer-Owned Generating Facility has been installed and passed inspected for compliance with the local building/electrical code on \_\_\_\_\_

Signed (Local electrical wiring inspector,):

\_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix C – Example 1 of 3

### Net Energy Metering Interconnection Agreement

#### **Customer Owned Fuel Cell, Solar, Wind, or Hydropower Electric Generating Facilities of 25 Kilowatts or Less**

This Net Energy Metering Interconnection Agreement is executed in duplicate this \_\_\_\_ day of \_\_\_\_\_, 200\_\_ between \_\_\_\_\_ (hereinafter referred to as "Customer"), and (Name of Utility). Both parties, who may be herein further referred to collectively as "Parties" and individually as "Party", agree as follows:

#### 1. CUSTOMER ELECTRIC GENERATING FACILITY

1. Customer has elected, in accordance with RCW 80.60 et seq., to operate either a net energy metering fuel cell, solar, wind or hydropower electric generating facility, with a generating capacity of not more than twenty-five kilowatts, in parallel with (Name of Utility's) transmission and distribution facilities. The customer's electric generating facility (generating facility) is intended to offset either part or all of the Customer's electrical requirements.
2. (Name of Utility) will not provide wheeling for Customer as generation from the net metering electrical generating facility will only be applied to consumption at the location of said electrical generating facility.
3. Customer's Application for Net Metered Electrical Generation, including the location of the electrical generating installation facility and details on the electrical generating unit(s) is hereby incorporated into this agreement as Attachment A.
4. The installation is identified by (Name of Utility) with the following designators: Transformer No. (feeder and phase) \_\_\_\_\_, Customer Utility Account No. \_\_\_\_\_.
5. A separate agreement shall be entered into for each Customer's electrical service location(s).
6. The electrical generating system facility used by the Customer shall be located on the Customer's premises. It shall include all equipment necessary to meet applicable safety, power quality, and Interconnection requirements established by the National Electrical Code (Articles 690 and 705), National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, and (Name of Utility's) Net Metering Interconnection Standards, as set forth in Attachment B, which is attached hereto.
7. (Name of Utility) shall have the sole authority to determine which Interconnection requirements set forth herein are applicable to Customer's proposed generating facility.

#### 2. PAYMENT FOR NET ENERGY

1. (Name of Utility) shall measure the net electricity produced or consumed by the Customer during each billing period, in accordance with normal metering practices.

2. If the electricity supplied by (Name of Utility) exceeds the electricity generated by the Customer and fed back to (Name of Utility) during the billing period, or any portion thereof, then the Customer shall be billed for the net electricity supplied by (Name of Utility) together with the appropriate customer charge paid by other customers of (Name of Utility) in the same rate class.

3. If the electricity generated by the Customer and distributed back to (Name of Utility) during the billing period, or any portion thereof, exceeds the electricity supplied by (Name of Utility), then the Customer shall be:

a. billed for the appropriate customer service charge as other customers of (Name of Utility) in the same rate class; and

b. credited for the net excess kilowatt-hours generated during the billing period, with this kilowatt-hour credit appearing on Customer's bill for the following billing period.

1. At the beginning of each calendar year, any remaining unused kilowatt-hour credit accumulated by the Customer during the previous year shall be granted to (Name of Utility), without any compensation to the Customer.

2. Customer shall pay any amount owing for electric service provided by (Name of Utility) in accordance with applicable rates and policies. Nothing in this Section 2 shall limit (Name of Utility's) rights under applicable Rate Schedules, City Ordinances, Customer Service Policies, and General Provisions.

### 3. INTERRUPTION OR REDUCTION OF DELIVERIES

1. (Name of Utility) may require Customer to interrupt or reduce deliveries as follows:

- a. when necessary in order to construct, install, maintain, repair, replace, remove, investigate, or inspect any of its equipment or part of its system; or
- b. if it determines that curtailment, interruption, or reduction is necessary because of emergencies, force or compliance with prudent electrical practices.

1. Whenever possible, (Name of Utility) shall give Customer reasonable notice of the possibility that interruption or reduction of deliveries may be required.

2. Notwithstanding any other provision of this Agreement, if at any time (Name of Utility) determines that either:

- a. the generating facility may endanger (Name of Utility) personnel, or
- b. the continued operation of Customer's generating facility may endanger the integrity of Name of Utility's electric system,

(Name of Utility) shall have the right to disconnect Customer's generating facility from (Name of Utility's) electric system. Customer's generating facility shall remain



disconnected until such time as (Name of Utility) is satisfied that the condition(s) referenced in (a) of (b) of this section 3.3 have been corrected.

#### 4. INTERCONNECTION

1. Customer shall deliver the excess energy to (Name of Utility) at (Name of Utility's) meter.
2. Customer shall pay for designing, installing, inspecting, operating, and maintaining the electric generating facility in accordance with all applicable laws and regulations and shall comply with (Name of Utility's) Interconnection Standards set forth in Attachment B, which is attached hereto.
3. Customer shall pay for (Name of Utility's) standard watt-hour meter electrical hook-up, if not already present.
4. Customer shall not commence parallel operation of the generating facility until written approval of the Interconnection facilities has been given by (Name of Utility). Such approval shall not be unreasonably withheld. (Name of Utility) shall have the right to have representatives present at the initial testing of Customer's protective apparatus. Customer shall notify (Name of Utility) when testing is to take place.

#### 5. MAINTENANCE AND PERMITS

Customer shall:

- a. maintain the electric generating facility and Interconnection facilities in a safe and prudent manner and in conformance with all applicable laws and regulations including, but not limited to, (Name of Utility's) Interconnection Standards, and
- b. obtain any governmental authorizations and permits required for the construction and operation of the electric generating facility and Interconnection facilities, including electrical permit(s).
- c. reimburse (Name of Utility) for any and all losses, damages, claims, penalties, or liability it incurs as a result of Customer's failure to obtain or maintain any governmental authorizations and permits required for construction and operation of Customer's generating facility or failure to maintain Customer's generating facility as required in (a) of this Section 5.

#### 6. ACCESS TO PREMISES

(Name of Utility) may enter Customer's premises or property to:

- a. inspect, with prior notice, at all reasonable hours, Customer's generating facility's protective devices;
- b. read meter; and
- c. disconnect at (Name of Utility's) meter or transformer, without notice, the generating facilities if, in (Name of Utility's) opinion, a hazardous condition exists and such immediate action is necessary to protect persons, or (Name of Utility's)

facilities, or property of others from damage or interference caused by Customer's electric generating facilities, or lack of properly operating protective devices or inability to inspect the same.

The (Name of Utility) inspection or other action shall not constitute approval by the (Name of Utility). The customer remains solely responsible for the safe and adequate operation of its facilities.

## 7. INDEMNITY AND LIABILITY

1. The Customer assumes the risk of all damages, loss, cost and expense and agrees to indemnify (Name of Utility), its successors and assigns, and its respective directors, officers, employees and agents, from and against any and all claims, losses, costs, liabilities, damages and expenses including, but not limited to, reasonable attorney fees, resulting from or in Interconnection with performance of the agreement or which may occur or be sustained by Name of Utility on account of any claim or action brought against (Name of Utility) for any reason including but not limited to loss to the electrical system of the Customer caused by or arising out of an electrical disturbance.

2. Such indemnity, protection, and hold harmless includes any demand, claim, suit or judgment for damages, death or bodily injury to all persons, including officers, employees or agents, and subcontractors of either Party hereto including payment made under or in Interconnection with any Worker's Compensation Law or under any plan for employees' disability and death benefits or property loss which may be caused or contributed to by the Interconnection, maintenance, operation, use, presence, or removal of Customer's equipment. The only exception will be liability occasioned by the sole negligence or willful misconduct of (Name of Utility) or its employees acting within the scope of their employment and liability occasioned by a partial negligence of (Name of Utility) or its employees acting within the scope of their employment to the extent that such partial liability is fixed by a court of competent jurisdiction.

3. The provisions of the Section 7 shall not be construed to relieve any insurer of its obligations to pay any insurance claims in accordance with the provisions of any insurance policy.

4. (Name of Utility) shall have no liability, ownership interest, control or responsibility for the Customer's Electric Generating Facility or its Interconnection with (Name of Utility's) electric system, regardless of what (Name of Utility) knows or should know about the Customer's Electric Generating Facility or its Interconnection.

5. Customer recognizes that it is waiving immunity under Washington Industrial Insurance law, Title 51 RCW, and further agrees that this indemnification clause has been mutually negotiated. This indemnification shall extend to and include attorney's fees and the costs of establishing the right of indemnification hereunder in favor of (Name of Utility).

## 8. INDEPENDENT CONTRACTORS

The Parties hereto are independent contractors and shall not be deemed to be partners, joint ventures, employees, franchisees or franchisers, servants or agents of each other for any purpose whatsoever under or in Interconnection with this Agreement.

## 9. GOVERNING LAW

This Agreement shall be interpreted, governed, and constructed under the laws of the State of Washington as if executed and to be performed wholly within the State of Washington. Venue of any action arising hereunder or related to this agreement shall lie in \_\_\_\_\_ County, Washington.

## 10. FUTURE MODIFICATION OR EXPANSION

Any future modification or expansion of the Customer owned generating facility will require an engineering review and approval by (Name of Utility). (Name of Utility) reserves the right to require the Customer, at Customer's expense, to provide modifications or additions to existing electrical devices including, but not limited to protection device and meters, in the event of changes to government or industry regulation and/or standards.

## 11. AMENDMENTS, MODIFICATIONS OR WAIVER

Any amendments or modifications to this Agreement shall be in writing and agreed to by both Parties. The failure of any Party at any time or times to require performance of any provision hereof shall in no manner affect the right at a later time to enforce the same. No waiver by any Party of the breach of any term or covenant contained in this Agreement, whether by conduct or otherwise, shall be deemed to be construed as a further or continuing waiver of any such breach or waiver of the breach of any other term or covenant unless such waiver is in writing.

## 12. ASSIGNMENT

The Customer shall not assign its rights under this Agreement without the express written consent of (Name of Utility). (Name of Utility) may impose reasonable conditions on any such assignment to ensure that all of Customer's obligations under this Agreement are met and that none of Customer's obligations under this Agreement are transferred to (Name of Utility) as a result of default, bankruptcy, or any other cause.

## 13. APPENDICES

The Agreement includes the following appendices attached and incorporated by reference:

Attachment A: Application for Net Metered Electrical Generation to (Name of Utility).

Attachment B: (Name of Utility) Net Metering Interconnection Standards for Customer Electric Generating Facilities of 25 Kilowatts or Less.

## 14. NOTICES

All written notices shall be directed as follows:

Name and address of Utility: \_\_\_\_\_

Customer:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State & Zip

Customer notices to Utility, pursuant to this Section 15, shall refer to the Service Address set forth in Appendix A, Application for Net Metered Electrical Generation.

#### 15. TERM OF AGREEMENT

This Agreement shall be in effect when signed by the Customer and Name of Utility and shall remain in effect thereafter month to month unless terminated by either Party on thirty (30) days' prior written notice in accordance with Section 13.

#### 16. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives.

This Agreement is effective as of the last date set forth below.

CUSTOMER:	NAME OF UTILITY:
Signature	Signature
Print name	Print name
Title	Title
Date	Date

## Appendix C – Example 2 of 3

### Power Purchase Agreement

For

### Power Generation Facilities

(\_\_\_\_ Kilowatts or less)

THIS AGREEMENT, between \_\_\_\_\_  
(Seller) and (Utility Name), bears the following recitals:

- A. Seller intends to own and/or operate an electric power generation facility using co-generation, fuels derived from biomass, waste or renewable energy sources, including wind, solar energy, and water to produce power. Seller desires to operate such generation in parallel with the Utility's system and sell a portion or all of the power produced to the Utility. The Utility has no direct financial involvement in the investment, construction, operation, or maintenance of Seller's generation facility.
- B. Seller's generation facility is located at \_\_\_\_\_  
and will be ready to produce and deliver power for sale on or about \_\_\_\_\_
- C. Seller's generation facility is described as:  
Make: \_\_\_\_\_  
Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_  
Fuel or energy source: \_\_\_\_\_ and having a name plate output rating of \_\_\_\_  
kW, \_\_\_\_\_ volts, \_\_\_\_\_ phase, 60 Hertz.
- D. The Utility is willing to permit Seller to operate its generation facility in parallel with the Utility's system under certain conditions for the purposes of delivering power to the Utility.
- E. The Utility is willing to purchase Seller's delivered energy at the rate set forth in the Utility's Schedule 90, as that rate may from time to time be revised by the Board of Commissioners of the Utility pursuant to RCW 54 16.040 and Section 210 of the Federal Public Utility Regulatory Policies Act of 1978 (PURPA), Public Law 95-617.

NOW, THEREFORE, Seller and the Utility agree to the following:

1. The Seller and the Utility agree to interconnect their respective facilities to purchase or sell electric energy, and the Utility agrees to purchase such delivered electric energy at the rate set forth in the Utility's Rate Schedule \_\_\_\_\_, as that rate may from time to time be revised.  
  
A copy of the current Rate Schedule \_\_\_\_\_ (to be attached by the Utility), and by this reference made a part hereof as if set forth at length herein. When any change is made to Rate Schedule \_\_\_\_\_, a copy of the new Rate Schedule shall be provided to the Seller.
2. The Utility's obligation for payment to Seller for energy deliveries to the Utility shall commence on the date stated by the Utility in its written approval for Seller to commence parallel operation as described in Para 7.
3. The Utility shall sell any electric power delivered by the Utility to the Seller under the

provisions of the Utility's applicable rate schedules.

4. Seller shall be fully responsible for the costs and performance of designing, installing, owning, operating, and maintaining Seller's:
  - a. generating facility in accordance with the requirements of all applicable laws, rules, codes, and regulations, and the directives of all governmental agencies having jurisdiction;
  - b. control and protective devices as required by the Utility for the safe parallel operation of Seller's generation facility with the Utility's system; and
  - c. interconnection facilities on Seller's premises as may be required to deliver power from Seller's generation facilities to the agreed point of interconnection with the Utility's system.
5. In the event it is necessary for the Utility to install any special or additional interconnection facilities, including control or protective devices, time of delivery metering, and reinforcement of its system to receive or to continue to receive the power delivered under this Agreement, Seller shall reimburse the Utility for its costs associated with the installation of such facilities.
6. Seller shall submit equipment specifications and detailed plans to the Utility for the installation of its interconnection facilities, control and protective devices, and facilities to accommodate the Utility's meters for review and advance written approval prior to their actual installation.
7. Seller agrees not to operate its generator in parallel with the Utility's system until the installation has been inspected by authorized Utility representatives and final written approval is received from the Utility to commence parallel operations.
8. The Utility's approvals described in this Agreement shall not be construed as any warranty of safety, durability, or reliability of Seller's generation service facilities or its control or protective devices.
9. The Utility shall have the right:
  - a. to enter the Seller's premises at any time for the inspection of Seller's protective devices and for reading and testing of meters;
  - b. to enter Seller's premises at reasonable times to disconnect the interconnection for purposes of maintenance; and
  - c. to enter Seller's premises at any time and to disconnect without notice the interconnection facilities if, in the Utility's opinion, a hazardous condition exists and such immediate action is necessary to protect persons, or the Utility's facilities, or other customer's facilities from damage or interference caused by Seller's generator, or lack of properly operating protective devices.
10. Seller agrees to make no change in its generation facility or protective devices without the prior written consent of the Utility.
11. The Utility shall not be liable for any loss or damage to property or bodily injuries to or death of persons, whether suffered by the Seller, its agents or employees, or by any third person, persons or corporations, resulting from the location, use, or operation of

electrical or other equipment located on the customer's side of the point of delivery, or from electric energy present therein or escaping therefrom

12. The Seller shall indemnify the Utility, its officers, agents, and employees against any loss, damages, bodily injury or death of any person or persons, including, but not limited to, the employees of the Utility, its customers, or any third party, resulting from or arising out of or in any way connected with the installation, inspection, maintenance, testing, use, and operation of Seller's facility.
13. Seller shall be solely responsible for securing any and all easements, licenses and permits, or exemptions therefrom, as may be required by any federal, state, or local statutes, ordinances or regulations, and hereby represents and warrants that all such necessary easements, licenses and permits, or exemptions, have been received, and hereby agrees to and shall indemnify and defend the Utility, its officers, agents, and employees, from and against any and all losses or claims resulting from or arising out of Seller's performance or failure to perform under this provision.
14. Seller shall obtain, at its own expense, insurance for bodily injury and property damage with a combined single limit of \$ \_\_\_\_\_, with provisions acceptable to the Utility prior to the actual interconnected operation of the facility. Such insurance shall be maintained in full force and effect so long as the facility is interconnected to the Utility's system. Failure to maintain such insurance shall constitute a breach of contract and shall be sufficient grounds for the Utility to terminate this Agreement.

A certificate of the insurance coverage of the Seller shall be authenticated by the proper officer of the insurer and shall provide that such insurance is in effect at the time of said certificate and will not be cancelled, limited, or allowed to expire without renewal until after thirty (30) days' advance written notice has been given to the Utility.

15. This Agreement may not be assigned by the Seller to another party except with the written consent of the Utility, which consent shall not be unreasonably refused.
16. This Agreement shall be in effect when signed by the Seller and the Utility for an initial term of one year, and shall remain in effect thereafter from month to month unless terminated by either party with thirty (30) days' advance written notice to the other.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_

Seller \_\_\_\_\_

Utility \_\_\_\_\_

By \_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
Title

MAILING ADDRESS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Appendix C - Example 3 of 3.

### INTERCONNECTION AGREEMENT

THIS INTERCONNECTION AGREEMENT (this "Agreement"), is made as of this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between \_\_\_\_\_ (the "Utility") and \_\_\_\_\_ ("Customer") for interconnection service at \_\_\_\_\_ The Utility and the Customer are sometimes referred to herein individually as a "Party" and collectively as the "Parties."

#### RECITALS

- A. The Utility is a [public service utility] engaged in the sale and distribution of electric energy.
- B. Customer has installed and desires to operate in parallel with the Utility's electric system, from and after the date of this Agreement, certain electrical equipment at the above location, consisting of \_\_\_\_\_ and related facilities and equipment ("Facility"), for the purpose of \_\_\_\_\_.
- C. The Facility and the Utility's electric system are interconnected at one meter location indicated in Exhibit A to this Agreement, attached hereto and incorporated herein by this reference.
- D. Customer desires that the Utility, and the Utility is willing to, interconnect with Customer and operate in parallel with Customer subject to the terms and conditions of this Agreement.

#### AGREEMENT

NOW, THEREFORE, for and in consideration of the mutual benefits to be derived therefrom, the Utility and Customer agree as follows:

##### 1. Service and Rates

1.1 The Utility agrees to provide interconnection service to Customer pursuant to the terms, conditions and rates as may be from time to time approved by [[the Washington Utilities and Transportation Commission ("Commission")] [for the IOUs]] [[the appropriate governing board [for public power]]] and pursuant to the terms and conditions contained in this Agreement.

1.2 This Agreement governs the terms and conditions under which the Customer's generating Facility will interconnect with, and operate in parallel with, the Utility's electric system. This Agreement does not constitute an agreement to settle, purchase or deliver any power generated by Customer's generating Facility. The purchase or delivery of power, including net metering of electricity pursuant to Chapter 80.60 RCW, and other services that the Customer may require will be covered by separate agreement or pursuant to the terms, conditions and rates as may be from time to time approved by [[the



Washington Utilities and Transportation Commission ("Commission") [for the IOUs]  
[[the appropriate governing board [for public power]].

## **2. Delivery of Excess Energy Generated by the Facility**

All excess electric energy generated by the Facility shall be delivered into the Utility's electric system at the Point of Delivery. The "Point of Delivery" is the location, as shown on Exhibit A to this Agreement, where the Utility's electric system is interconnected with the Facility. Such excess electric energy shall be delivered in the form of \_\_\_\_\_ phase, sixty hertz, alternating electric current at \_\_\_\_\_ volts. In no event shall Customer deliver into the Utility's electric system electric energy at more than five percent above or five percent below such voltage.

## **3. Interruption**

**3.1** At any time, and from time to time, the Utility may disconnect its electric system from the Facility or may interrupt or reduce the flow of energy to or from the Facility if, in the Utility's sole determination, failure to do so

- (a) would interfere with or endanger or adversely affect the Utility's electric system or operations,
- (b) would endanger any person or the property of the Utility, of Customer, or of any third party, or
- (c) would be unsafe or contrary to prudent electrical practices.

For the purposes of this Agreement "prudent electrical practices" means (a) those practices, methods and acts which when engaged in are commonly used in prudent utility engineering and operations to operate electric equipment lawfully and with safety, reliability, efficiency and expedition; or (b) if no such practices, methods and acts exist, then those practices, methods and acts which, in the exercise of reasonable judgment considering the facts known when engaged in, could have been expected to achieve the desired result consistent with applicable law, safety, reliability, efficiency and expedition.

Prudent electrical practices are not limited to the optimum practice, method or act, but rather is a spectrum of possible practices, methods or acts.

**3.2** The Utility shall have no liability (whether arising in contract, tort, strict liability, warranty or otherwise) for any loss or damage whatsoever arising out of any action taken by the Utility pursuant to this Section and Customer hereby releases the Utility from such liability.

## **4. Term and Termination**

**4.1** This Agreement is effective upon execution the day and year first above written. Continued service under this Agreement is contingent upon the availability of any rate schedule of the Utility related to service provided by the Utility under this Agreement, as such rate schedule and any change thereto may be approved by the Commission from time to time.

**4.2** Customer may disconnect the Facility at any time upon thirty (30) days' notice to the Utility, and this Agreement shall terminate upon permanent physical removal of facilities necessary to interconnect the Facility with the Utility's electric system; provided, that all obligations incurred before the termination of this Agreement shall survive such termination and continue in full force and effect until fully satisfied.

**5. Governmental Authority**

Customer shall obtain all governmental authorizations, licenses and permits needed for the construction and operation of the Facility.

**6. Inspection by the Utility**

Customer shall permit the Utility to inspect the Facility at any reasonable time.

**7. Protective Apparatus**

If the Facility's capacity is greater than \_\_\_ kW, Customer shall, at no cost or expense to the Utility, furnish, install, operate, and maintain a lockable disconnect switch, capable of isolating the Facility from the Utility's electric system. Such switch shall be accessible to the Utility and the Utility shall have the right to lock such disconnect switch open whenever the Utility, in its sole discretion, deems it necessary to maintain safe electrical operating conditions, or whenever Customer's facilities adversely affect the Utility's system. If the Facility's initial capacity is 5 kW or less, and is later increased to greater than \_\_\_ kW, Customer shall notify the Utility immediately and this Section shall apply.

**8. Operation of Equipment**

(a) Except as otherwise provided in Section 7 and in this Section, Customer shall have sole responsibility for the operation of the equipment described in Section 7 above.

(b) The Utility may, in its sole discretion, at any time, and from time to time, operate the equipment described in Section 7, (i) to disconnect the Facility from the Utility's electric system upon termination of this Agreement or (ii) to disconnect the Utility's electric system from the Facility or to interrupt or reduce the flow of energy to or from the Facility pursuant to Section 3 above.

**9. Interconnection**

**9.1** Subject to the terms and provisions of this Agreement and applicable interconnection standards (attached as Exhibit A), the Utility shall permit Customer to interconnect its Facility to the Utility's electric system. An electrical system one-line diagram of such interconnection is included in Exhibit B to this Agreement, attached hereto and incorporated herein.

**9.2** Customer shall pay all costs for the design, installation, operation, and maintenance of the Facility in accordance with all applicable laws and regulations and with Exhibit A & B to this Agreement.

**9.3** Customer shall reimburse the Utility for all costs and expenses reasonably incurred by the Utility for engineering, reviewing plans, inspection, or other activities related to installation of the Facility not otherwise recoverable under Section 1, including, without limitation, costs incurred by the Utility in connection with the procurement and installation of interconnection facilities. Such reimbursement shall be made by Customer in a manner satisfactory to the Utility within thirty (30) days after receipt of the Utility's invoice therefor. Any overdue reimbursement shall be made with interest accruing at the rate of twelve percent (12%) per annum calculated on the basis of a 365-day year and actual days elapsed from (and including) the date on which such reimbursement was due, to (but excluding) the date on which such reimbursement is made.

**9.4** After interconnection is completed at the point indicated in Exhibit B, the Utility will notify the Customer prior to undertaking any additional activities related to the Facility, the costs for which are the responsibility of the Customer pursuant to Sections 9.3, or 10.2 of this Agreement; provided, that the Utility shall not be required to notify the Customer before taking any actions under Section 3 of this Agreement, or any emergency actions required to prevent damage to any person or property of the Utility, Customer, or any third-party. Within fifteen (15) days after such notification by the Utility ("Notification Period"), the Customer may elect to terminate this Agreement pursuant to Section 4.2. During the Notification Period, the Utility shall not engage in any additional activities for which the Customer would incur costs pursuant to this Section without Customer's consent. If Customer does not terminate this Agreement within the Notification Period, the Utility may undertake such additional activities related to the Facility.

**9.5** The Customer shall be responsible for any costs associated with any required upgrade or modification to the Utility's distribution system (including service line or line transformer) if (a) output from the Facility exceeds Customer's demand in the absence of Facility's generation and (b) the existing line transformer and service line is not rated for the Facility's output. The payment terms described in Section 9.3 (for reimbursements to the Utility) shall apply to any costs incurred by the Utility on behalf of the Customer pursuant to this Section 9.5.

## **10. Operation, Maintenance, and Modification by Customer**

**10.1** Customer shall operate and maintain the Facility in accordance with Utility's safety and reliability standards, and with applicable law.

**10.2** The Customer shall be responsible for any costs associated with any future upgrade or modification to its system required by future modifications in the Utility's distribution system.

## **11. No Liability or Warranty by the Utility**

**11.1** The Utility shall have no liability or responsibility for the Facility or its interconnection with the Utility's electric system, regardless of what the Utility knows or should know about the Facility or its interconnection.

**11.2** Neither this Agreement nor anything the Utility does (for example, inspections, acceptances, or approvals) or fails to do with respect to the Facility or its interconnection with the Utility's electric system shall be considered a warranty by the Utility, or make the Utility liable to any extent for the Facility or its interconnection.

**12. Indemnity and Release; Insurance**

**12.1** To the maximum extent permitted by applicable law, Customer hereby releases and shall defend, indemnify and hold harmless each, any and all of the Utility, its successors and assigns, and the respective directors, officers, employees, and representatives of the Utility, its successors and assigns (collectively, the "Indemnitees") from and against any and all allegations, claims, demands, harms, liens, losses, costs, damages, expenses (including, but not limited to, reasonable attorneys' fees) and liabilities directly or indirectly arising from or in connection with any and all of the following: (i) this Agreement; (ii) the construction, installation, or operation of the Facility; (iii) the interconnection or disconnection (or failure to do so) of the Facility and the Utility's electric system, or (iv) any act or omission by Customer, its employees or agents or representatives. Notwithstanding the provisions of this paragraph 12.1, the Utility shall not be indemnified hereunder for its loss, liability, damage, claim, cost, charge, demand, or expense resulting from its sole negligence or willful misconduct.

**12.2** The Parties intend that, to the maximum extent permitted by applicable law, and consistent with the provisions of RCW 4.24.115 if and as applicable, Section 12.1 shall apply regardless of any act, omission, fault, negligence or strict liability of the Indemnitees (each, any or all of them).

**12.3** In connection with any action to enforce this Section 12, the Customer hereby waives any immunity, defense, or protection under any workers' compensation, industrial insurance or similar laws (including, but not limited to, the Washington Industrial Insurance Act, Title 51 of the Revised Code of Washington).

This Section 12.3 was mutually negotiated by the Parties:

Initialed by:	
_____	_____
Customer	Utility

**12.4** Except to the extent Customer is not required to purchase additional liability insurance pursuant to RCW Section 80.60.040(3), Customer shall maintain, during the term of this Agreement, General Comprehensive Personal Liability Insurance for bodily injury (including death), personal injury and property damage arising out of or in connection with the interconnection of the Facility with the Utility's electric system. The following limits shall apply: bodily Injury (including death), \$2,000,000 per person, per occurrence; property damage, \$2,000,000 per occurrence; personal and advertising injury, \$2,000,000 per occurrence. Any policy of insurance carried in accordance with this Section 12.3 and any insurance policy procured or maintained in substitution or replacement therefor shall (i) name Utility as additional insureds, and (ii) not be

cancelled, terminated, amended or changed as to the Utility, as additional insured, until the date which is thirty (30) days following receipt by Utility of written notice from the insurer thereof of such cancellation, termination, amendment or change.

**13. Information**

Customer shall promptly furnish the Utility with copies of such plans, specifications, records, and other information relating to the Facility or the ownership, operation, use, or maintenance of the Facility, as may be reasonably requested by the Utility from time to time. All such information, together with any and all other documents and information furnished to the Utility under this Agreement, shall be given to the Utility on a non-confidential basis.

**14. Notices and Other Communications**

Notice Methods and Addresses. All notices, requests, demands and other communications required or permitted to be given under this Agreement shall be given in writing (i) by personal delivery, (ii) by recognized overnight air courier service, (iii) by United States postal service, postage prepaid, registered or certified mail, return receipt requested, or (iv) by facsimile transmission, using facsimile equipment providing written confirmation of successful completed transmission to the receiving facsimile number. All notices to either Party shall be made to the address set forth below. Any notice shall be deemed to have been given on the date delivered, if delivered personally, by overnight air courier service or by facsimile transmission; or, if mailed, shall be deemed to have been given on the date shown on the return receipt as the date of delivery.

Addresses for Notification. If to:

Utility:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Tel: (    ) \_\_\_\_\_  
Fax: (    ) \_\_\_\_\_

Customer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Tel: (    ) \_\_\_\_\_  
Fax: (    ) \_\_\_\_\_

**15. Miscellaneous**

**15.1** This Agreement is subject to the General Rules and Provisions as set forth in the Utility's Electrical Tariff G and other Schedules that may apply. Such schedules may be revised from time to time upon approval of the Commission. Any conflict between this Agreement and any provisions of the Utility's approved tariffs and rate schedules shall be resolved in favor of such tariff and schedule provisions.

**15.2** This Agreement and all of the terms and provisions of this Agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the

Parties; provided, that Customer shall not assign all or any part of this Agreement (or assign any of its rights under this Agreement or delegate performance of any of its obligations under this Agreement) without the prior written consent of the Utility.

**15.3** Customer shall be and act as an independent contractor (and not as an employee, partner, agent, or representative of the Utility) in the performance of this Agreement.

**15.4** This Agreement shall in all respects be interpreted, construed and enforced in accordance with the laws of the State of Washington (without regard to any conflict of law rules).

**15.5** All obligations of the Parties arising pursuant to this Agreement which may reasonably be construed as surviving the completion, termination, or cancellation, including, but not limited to, Sections 9, 11, 12 and 15 of this Agreement, shall survive the completion, termination or cancellation of this Agreement and shall be and remain fully enforceable in accordance with the terms and conditions of this Agreement.

**15.6** Nothing in this Agreement shall be construed to create any duty, obligation or liability to, or any standard of care with reference to any person or entity, other than the Parties (and their respective successors and assigns, subject to this section).

**15.7** This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties or to impose any partnership obligations or liability upon either of the Parties.

**15.8** Except as otherwise provided herein, this Agreement, including all exhibits hereto, sets forth the entire agreement between the Parties. This Agreement may not be modified or amended except by written amendment, signed by both Parties hereto.

<p>[Utility]</p>  <p>By: _____ Its: _____ Date: _____</p>	<p>[Customer]</p>  <p>By: _____ Its: _____ Date: _____</p>
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## APPENDIX E

### Utility Interconnection Checklist

- Submit an application to the Utility
  - ✓ Interconnection inverter must be UL 1741 Listed
  - ✓ Electrical schematic drawing must be included
  - ✓ Include provisions for a lockable visible disconnect if required by the Utility or local jurisdiction.
- Send to:
- Receive written design approval from the Utility
- Get an electrical permit from Washington State L&I @ \_\_\_\_\_. Follow the National Electric Code (NEC) as required.
- Complete the installation.
- Get inspections from a state electrical inspector and the Utility (call Utility for inspection at \_\_\_\_\_)
- Utility installs new bi-directional meter and adjusts rate schedule # \_\_\_ net metering.
- Start generating power

Questions?

Call one of our Energy Utilization Engineers at \_\_\_\_\_.