



## Renewable Energy System Cost Recovery Annual Incentive Payment Program Agreement for Customer owned Grid connected Renewable Electric Generating Systems

This **RENEWABLE ENERGY SYSTEM COST RECOVERY ANNUAL INCENTIVE PAYMENT PROGRAM AGREEMENT** ("Agreement") is between \_\_\_\_\_ ("Customer") and Mason County PUD No. 1 ("PUD"). Customer and PUD may be referred to collectively herein as "Parties" and individually as "Party."

### Mason Co. PUD 1 CUSTOMER ELECTRIC GENERATING SYSTEM

System Location/Address:			
System Manufacturer:			
Model (Name and Number):			
Name Plate Electrical Capacity:			
Name Plate Data:	kW	Volts	(Single or Three Phase)
GPS Coordinates:			
Tilt:	Azimuth:	Est. Shading:	
Energy Source: (Solar or Wind or Anaerobic Digester)			
Washington State Department of Revenue System Certification Date:			
Is this system Customer Owned? <input type="checkbox"/> Third Party Owned? <input type="checkbox"/>			

- 1.1 Customer has elected, in accordance with Chapter 36, Laws of 2017, 3<sup>rd</sup> Sp. Sess (ESSB 5939); RCW 82.16 to operate, at their own expense, a renewable energy generating system using either solar, wind or other distributive generation, aggregated at the service interconnection point, in parallel with the PUD's electrical system in order to qualify for state approved incentive payments for a portion or all of the renewable energy produced.
- 1.2 A separate agreement shall be entered into for each interconnection point of Customer-Generator.
- 1.3 The electrical generating system shall include all equipment necessary to meet applicable safety, power quality, and interconnection requirements established by the latest revisions of National Electrical Code (Articles 690 and 705), National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, and the PUD's Interconnection Standards, as set forth in Appendix B, which is attached hereto and incorporated herein.

- 1.4 The PUD shall have the sole authority to determine which interconnection requirements set forth herein (including appendices) are applicable to Customer's proposed installation.
- 1.5 Customer shall be fully responsible for the costs and performance of designing, installing, owning, operating, and maintaining Customer's: (a) Generating facility; (b) Control and protective devices; (c) Interconnection facilities on Customer's property that may be required to deliver power from Customer's generation facilities to the agreed point of interconnections with PUD's system.

## **2. TERMS OF METERING AND INCENTIVE PAYMENT FACILITATION**

- 2.1 Customer shall supply a certified revenue meter that meets or exceeds the standards as set forth by ANSI C12.20 for the purpose of metering the annual output of Customer's renewable generating system.

- 2.2 Customer shall allow PUD to install a tamper-proof seal on Customer's revenue meter. Removal of such seal without the consent of PUD shall result in voidance of incentive payment eligibility for the fiscal year in which seal tampering occurred.

- 2.3 Customer must meet all requirements of WAC 458-20-273 *Washington State renewable energy system cost recovery incentive payment program* and WAC 504-49 *Renewable Energy System Incentive Program*, including the state system certification requirements in order to qualify for the incentive payment. Properties purchased with existing interconnected net metered systems must be re-certified with the state under the new owner. Similarly, systems that are changed in any physical way must be re-certified with the state.

## **3. INTERRUPTION OR REDUCTION OF DELIVERIES**

- 3.1 The PUD 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 the PUD determines that curtailment, interruption, or reduction is necessary because of emergencies, or compliance with good electrical practices as determined by the PUD. PUD shall not be liable to Customer under any circumstances for loss of production from the renewable energy system caused by any interruption or reduction in service.
- 3.2 To the extent reasonably practicable, the PUD shall give Customer notice of possible interruption or reduction of deliveries.
- 3.3 Notwithstanding any other provision of this Agreement, if at any time the PUD determines that either (a) the facility may endanger PUD personnel, or (b) the

continued operation of Customer's facility may endanger the integrity of the PUD's electric system, the PUD shall have the right to disconnect Customer's facility from the PUD's electric system. Customer's facility shall remain disconnected until such time as PUD is satisfied that the condition(s) that caused the problems referenced in (a) or (b) of this section 3.3 have been corrected.

#### **4. INTERCONNECTION**

- 4.1 Customer shall comply with PUD's Interconnection Standards set forth in Appendix B and the Net Metering Application & Compliance Form set forth in Appendix C, which are attached and shall pay for designing, installing, inspecting, operating, and maintaining the electric generating system in accordance with all applicable laws and regulations.

Prior to commencing operations, and as a condition of receiving PUD approval for commencement of operations under Section 4.3, Customer shall deposit with the PUD an interconnection charge consisting of: (a) the cost to the PUD to install any special or additional interconnection facilities on its electric system, if necessary, to accommodate the flow of electricity from the generator on to the PUD's electric system, including, but not limited to, metering, control and protective devices, and reinforcement of its system; (b) any charges due the PUD under its Schedule 5 Line Extension Policy; and (c) the cost of any time and materials expended by PUD staff for engineering, reviewing plans, inspection, or other activities related to installation and interconnection of the generator not otherwise recovered under the provisions of this Paragraph 4.2.

4.2

Customer shall submit equipment specifications and detailed plans, including one-line diagrams, for the installation of the generator and associated interconnection, safety, and control equipment and wiring to the PUD for its review and advance written approval prior to actual installation. Customer shall not commence parallel operation of the generating system until inspection and written approval of the interconnection has been given by the PUD. Such approval shall not be unreasonably withheld. The PUD shall have the right to have representatives present at the initial testing of Customer's protective apparatus, and the Customer shall notify the PUD of his/her intent to test the generating system not less than two (2) working days prior to the scheduled test.

4.3

Once in operation, Customer shall make no changes or modifications in the equipment, wiring, or the mode of operation without the prior written approval of the PUD.

#### **5. MAINTENANCE AND PERMITS**

Customer shall: (a) maintain the electric generating system and interconnection facilities in a safe and prudent manner and in conformance with all applicable laws and regulations including, but not limited to, PUD's Interconnection Standards, Appendix B; (b) obtain any governmental authorizations and permits required for

the construction and operation of the electric generating system and interconnection facilities, including electrical permit; (c) reimburse PUD 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 system or failure to maintain Customer's facility as required in this Section.

## **6. ACCESS TO PREMISES**

The PUD may enter Customer's premises or property to inspect at all hours, Customer's protective devices and to read meter(s); and to disconnect the interconnection facilities at the PUD's meter or transformer, without notice, if, in the PUD's opinion, a hazardous condition exists and such immediate action is necessary to protect persons, or the PUD'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.

## **7. INDEMNITY AND LIABILITY**

The Customer hereby indemnifies and agrees to hold harmless and release Mason County PUD No. 1 and its elected officials, officers, employees and agents and each of the heirs, personal representatives, successors and assigns of any of the foregoing (collectively, the "Indemnitees") from and against any and all losses, claims, damages, costs, demands, fines, judgments, penalties, obligations, payments and liabilities, together with any costs and expenses (including without limitation attorneys' fees and out-of-pocket expenses and investigation expenses) incurred in connection with any of the foregoing, resulting from, relating to or arising out of or in connection with: (a) any failure or abnormality in the operation of the Customer's generating system or any related equipment; (b) any failure of the Customer to comply with the standards, specifications, or requirements referenced in this Agreement (including appendices hereto) which results in abnormal voltages or voltage fluctuations, abnormal changes in the harmonic content of the generating facility output, single phasing, or any other abnormality related to the quantity or quality of the power produced by the generating facility; (c) any failure of the Customer duly to perform or observe any term, provision, covenant, agreement or condition hereunder to be performed by or on behalf of the Customer or (d) any negligence or intentional misconduct of Customer related to operation of the generating system or any associated equipment or wiring.

## **8. FORCE MAJEURE**

- 8.1 **Suspension of Obligations.** Neither Party shall be liable to the other for, or be considered to be in breach of or default under this Agreement because of, any failure or delay in performance by such Party under this Agreement to the extent such failure or delay is caused by or results from any such cause or condition which is beyond such Party's reasonable control, or which such Party is unable to prevent or overcome by exercise of reasonable diligence (any such cause or condition, a "Force Majeure"), including breach of contract or failure of performance by any person providing services to the PUD.

- 8.2 **Notice; Required Efforts to Resume Performance.** Any Party claiming Force Majeure shall give the other Party maximum practicable advance notice of any failure or delay resulting from a Force Majeure, and shall use its reasonable best efforts to overcome the Force Majeure and to resume performance as soon as possible; provided however, that nothing in this Agreement shall be construed to require either Party to settle any labor dispute in which it may be involved.
- 8.3 **No Excuse of Payment Obligations.** Notwithstanding any other provision of this Agreement, in no event shall a Force Majeure excuse a Party's failure or delay to pay any amounts due and owing to the other Party under or pursuant to this Agreement.

**9. INDEPENDENT CONTRACTORS**

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

**10. ASSIGNMENT; BINDING AGREEMENT**

The Customer shall not assign its rights under this Agreement to any other Party without the express written consent of the PUD. The PUD 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 are transferred to the PUD as a result of default, bankruptcy, or any other cause.

**11. NO THIRD-PARTY BENEFICIARIES**

Except as expressly set forth in this Agreement, none of the provisions of this Agreement shall inure to the benefit of or be enforceable by any third party.

**12. ENTIRE AGREEMENT**

This Agreement and the Exhibits attached hereto set forth the entire agreement of the Parties and supersede any and all prior agreements with respect to the subject matter of this Agreement. The rights and obligations of the Parties hereunder shall be subject to and governed by this Agreement.

**13. GOVERNING LAW; VENUE**

This Agreement shall be governed by and construed in accordance with the laws of the State of Washington (regardless of the laws that might otherwise govern under applicable principals of conflicts of law of such state). Venue for any action arising under or in connection with this Agreement shall be in the Superior Court for Mason County, Washington, or in the United States District Court for the Western District of Washington.

**14. RULES OF CONSTRUCTION; STATUTORY REFERENCES**

No provision of this Agreement shall be construed in favor of or against either of the Parties hereto by reason of the extent to which any such Party or its counsel participated in the drafting thereof or by reason of the extent to which such

provision or any other provision or provisions of this Agreement is or are inconsistent with any prior draft thereof. Any reference to statutes or laws will include all amendments, modifications, or replacements of the specific sections and provisions concerned.

**15. AMENDMENT, 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.

**16. 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 (a) by personal delivery, (b) by recognized overnight air courier service, (c) by United States postal service, postage prepaid, registered or certified mail, return receipt requested, or (d) by facsimile transmission, using facsimile equipment providing written confirmation of successfully completed transmission to the receiving facsimile number. All notices to either Party shall be made to the addresses 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 or the date on which the United States postal service certified that it was unable to deliver, whichever is applicable.

**MASON COUNTY PUD NO.1:**

ATTN: Electric Engineering  
21971 N US HWY 101  
Shelton, Washington 98584  
Telephone: (360) 877-5249  
FAX: (360) 877-9274

**CUSTOMER:**

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

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

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

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

**17. APPENDICES**

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

**Appendix A:** Mason County PUD No. 1's Interconnection Standards for Customer-Owned, Grid Connected Electric Generating Systems of 100 kilowatts or Less.

**Appendix B:** Net Metering and Compliance Form

**18. TERM OF AGREEMENT**

This Agreement shall be in effect when signed by the Customer and PUD 1 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.

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

**CUSTOMER**

**MASON COUNTY PUD NO. 1**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
General Manager

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

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



Appendix A

## INTERCONNECTION & NET METERING APPLICATION

**THIS APPLICATION IS FOR:**

- New Net Metering Interconnection
- Installation of Customer Utilized, Grid Connected, Electric Generating Systems of 100 kW or Less

**A. APPLICANT INFORMATION (PLEASE PRINT)**

APPLICANT NAME	ADDRESS	CITY	STATE	ZIP CODE
DATE	PHONE	EMAIL ADDRESS		

**B. ELECTRIC SYSTEM INFORMATION (PLEASE PRINT)**

ELECTRIC ACCOUNT NO	INSTALLATION ADDRESS (IF DIFFERENT FROM ABOVE)	EXPECTED SYSTEM OPERATIONAL DATE		
IS THIS SYSTEM CUSTOMER OWNED OR THIRD-PARTY OWNED?				
ENERGY SOURCE (E.G., WIND, SOLAR, FUEL CELL, HYDRO, ETC.)		SITE LOCATION ON PROPERTY		
MANUFACTURER:		TYPE/STYLE:		
Name Plate Data	kW	Volts	Phases ( ) Single Phase ( ) Three Phase	

**C. SYSTEM DESIGNER & INSTALLATION CONTRACTOR INFORMATION (IF APPLICABLE)**

DESIGN CONSULTANT	ADDRESS	PHONE
INSTALLATION CONTRACTOR	ADDRESS	PHONE

**D. INSTALLATION**

PROPOSED INSTALLATION DATE
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**REMEMBER TO:**

Submit/Attach a one-line electrical diagram for proposed electrical system, including metering points in relation to Mason County PUD No. 1's electrical system and the Customer's generating system location.

**E. Interconnection Compliance & Customer Acknowledgement**

- The electrical system referenced above shall meet Mason County PUD No. 1's "Interconnection Standards for Customer-Utilized, Grid Connected Electric Generating Systems of 100 kW or less" in accordance with RCW 80.60.
- Customer shall be solely responsible for obtaining and complying with any and all necessary easements, licenses and permits, or exemptions, as may be required by any federal, state, local statutes, regulations, ordinances or other legal mandates.
- The Customer shall submit documentation to Mason County PUD No. 1 that the system has been inspected and approved by the local permitting agency regarding electrical code requirements.
- Customer shall not commence parallel operation of the generating system until inspection and written approval of the interconnection has been given by Mason County PUD No. 1.
- This Application Form shall be Appendix A to the Mason County PUD No. 1's "Interconnection & Net Metering Agreement."

<b>CUSTOMER SIGNATURE</b>	<b>DATE</b>
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## **INTERCONNECTION STANDARDS to Interconnection & Net Metering Agreement**

Rules and Regulations for Customer-Utilized Grid Connected Electric Generating Systems of  
100 kW or Less

### **Chapter 1: PURPOSE & SCOPE**

This document states the rules and standards for determining the terms, conditions, technical requirements, processes and charges governing the interconnection of electric generating facilities owned by any entity (known herein as the "Customer-Generator") other than Public Utility District No. 1 of Mason County ("PUD 1" or "PUD") with a maximum generating capacity of less than or equal to 100 kilowatts to the electric system over which the Commission of PUD 1 has jurisdiction.

These standards are intended to be consistent with the requirements of chapter 80.60 of the Revised Code of Washington (RCW), Net Metering of Electricity and to comply with provisions of the Energy Policy Act of 2005.

These standards govern the terms and conditions under which the Customer-Generator's generating facility will interconnect with, and operate in parallel with, the PUD's electric system. These standards apply only to the physical interconnection of a generating facility to the PUD's electrical system. They do not govern the settlement, purchase, or delivery of any power generated by the Customer-Generator's generating facility.

Any electrical generating facility must comply with these standards to be eligible to interconnect and operate in parallel with the PUD's electric system. These standards shall apply to all interconnecting generating facilities that are intended to operate in parallel with the PUD's electric system irrespective of whether the Customer-Generator intends to generate energy to serve all or a part of the Customer-Generator's load; or to sell the output to the PUD or any third party purchaser.

When a Customer-Generator requests interconnection from the PUD, the Customer-Generator shall be responsible for conforming to the rules and regulations that are in effect and on file with the PUD. The PUD will designate a point of contact and publish a telephone number or web site address for this specific purpose.

These rules do not apply to standalone systems of standby or backup generators that are not intended to operate in parallel with the PUD's system. Such interconnections will be negotiated on a case-by-case basis with the PUD and such generators shall only be interconnected on terms and conditions prescribed by the PUD.

## Chapter 2: DEFINITIONS

The following words and terms shall be understood to have the following meanings when used throughout this document.

**Applicant** means any person, corporation, partnership, government agency, or other entity applying to interconnect a generating facility to the PUD's electric system pursuant to chapter 80.60.

**Application** means the written notice provided by the applicant to the PUD that initiates the interconnection process.

**Business day** means Monday through Friday excluding official federal or Washington State holidays.

**Certificate of completion** means the form completed by the applicant or Customer-Generator and the electrical inspector having jurisdiction over the installation of the facilities indicating completion of installation and inspection of the interconnection.

**Electric system** means all electrical wires, equipment, and other facilities owned or provided by the PUD that are used to transmit electricity to customers.

**Generating facility** means a source of electricity used by the Customer-Generator that is located on the Customer-Generator's premises and the Customer-Generator's side of the point of common coupling, and all facilities ancillary and appurtenant thereto, including interconnection facilities, which the applicant requests to interconnect to the PUD's electric system.

**Customer-Generator** means a customer that owns and/or uses a generating facility located on the customer's premises which is interconnected to the PUD's electric system. Customer-Generators who use, but do not own, a generating facility located on their premises may be required to provide proof of legal authority to ensure that Customer-Generator's generating facility meets all requirements of these standards.

**Initial operation** means the first time the generating facility is in parallel operation with the electric system.

**In-service date** means the date on which the generating facility and any related facilities are complete and ready for service, even if the generating facility is not placed in service on or by that date.

**Interconnection** means the physical connection of a generating facility to the electric system so that parallel operation may occur.

**Interconnection Customer** means the person, corporation, partnership, government agency, or other entity that has executed an Interconnection Agreement with the PUD **and**:

1. that **owns** a generating facility interconnected to the PUD's electric system;
2. for net-metered facilities, is a Customer-Generator as defined herein, who is both a customer of the PUD **and is also the owner** of the generator being interconnected to the PUD's electrical system; **or**

3. is a customer of the PUD who purchases power from, or leases facilities from a Third Party Owner.

**Interconnection facilities** means the electrical wires, switches and other equipment used to interconnect a generating facility to the electric system.

**Maximum generating capacity** means the maximum amount of energy that the generator is capable of producing on an instantaneous basis.

**Model interconnection agreement** means standardized terms and conditions that govern the interconnection of generating facilities pursuant to these standards. The model interconnection agreement may be modified to accommodate terms and conditions specific to individual interconnections, subject to the conditions set forth in these rules.

**Net metering** has the same meaning as RCW 80.60.010(9) for Customer-Generator owned net metered facilities; and, for generating facilities owned by Third Party Owners, has the meaning as used in these standards and any other rates, terms and conditions adopted by the PUD for third party owned systems.

**Network distribution system (grid or spot)** means electrical service from a distribution system consisting of two 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 (a grid network) PUD customers.

**Parallel operation** or **operate in parallel** means the synchronous operation of a generating facility while interconnected with a utility's electric system.

**Point of common coupling** or **PCC** means the point where the generating facility's local electric power system connects to the PUD's electric 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 generating facility and utility.

**PUD** or **PUD 1** means Public Utility District No. 1 of Mason County, Washington, which owns and operates the electrical distribution system, or the electrical distribution system itself, onto which the Customer-Generator seeks to interconnect a generating facility.

**Third Party Owner** means an owner of a generating facility, sized approximately equal to or less than the PUD customer's annual load, that sells power from or leases their generating facility to a PUD customer and that has met the requirements for Third Party Owners in these standards, in the Interconnection Agreement executed between the Interconnection Customer and the PUD, and any other rates, terms and conditions applicable to the Third Party Owner as adopted by the PUD.

### **Chapter 3: TECHNICAL STANDARDS FOR INTERCONNECTION**

#### **A) General interconnection requirements**

1. Any generating facility desiring to interconnect with the PUD's electric system or modify an existing interconnection must meet all minimum technical specifications applicable, in their most current approved version, as set forth in chapter 80.60 RCW.
2. A generating facility 100 kW or smaller must comply with all requirements from Table 1

that are applicable to the interconnection of that generating facility.

**Table 1 – 100 kW or Smaller**

<b>Feature</b>	<b>Single-Phase</b>		<b>Three-Phase</b>	
	<b>*Capacity</b>			
	<b>≤ 50 kW Inverter based</b>	<b>≤ 50 kW Non-inverter based</b>	<b>≤ 100 kW Inverter based</b>	<b>≤ 100 kW Non-inverter based</b>
IEEE 1547 compliant	√	√	√	√
UL 1741 listed	√		√	
Interrupting devices (capable of interrupting maximum available fault current)	√ [8]	√	√ [8]	√
Interconnection disconnect device (manual, lockable, visible, accessible)	[1]	√	√	√
System Protection		√ [3][4][6]		√ [3][4][5][6]
Over-voltage trip	√ [8]	√	√ [8]	√
Under-voltage trip	√ [8]	√	√ [8]	√
Over/Under frequency trip	√ [8]	√	√ [8]	√
Automatic synchronizing check		√		√
Ground over-voltage or over-current trip for PUD system faults				√ [2]
Power factor		√ [7]		√ [7]

**Notes:**

√ – Required feature (blank = not required)

\* Capacity of single or aggregate generation

[1] – PUD may choose to waive this requirement

[2] – May be required by PUD; selection based on grounding system

[3] – No single point of failure shall lead to loss of protection.

[4] – All protective devices shall fully meet the requirements of ANSI C37.90

[5] – PUD will specify the transformer connection.

[6] – It is the Customer-Generator’s responsibility to ensure that their system is effectively grounded as defined by IEEE Std. 142 at the point of common coupling.

[7] – Variance may be allowed based upon specific requirements per PUD review. Charges may be incurred for losses.

[8] - UL 1741 listed equipment provides required protection.

3. Any single or aggregated generating facility with a capacity greater than 50 kW shall require a three-phase interconnection.
4. The specifications and requirements in these rules are intended to mitigate possible adverse impacts caused by a generating facility to PUD 1 equipment and personnel and on other customers of the PUD. They are not intended to address protection of the Interconnection Customer's generating facility, facility personnel, or internal load. It is the responsibility of the Interconnection Customer and/or Third-Party Owner to comply with the requirements of all appropriate standards, codes, statutes and authorities to protect its own facilities, personnel, and loads.
5. The specifications and requirements in this section shall apply generally to the Customer-Generator utilized electric generation equipment (or any other facilities or equipment not owned by the PUD) to which this standard and agreement(s) apply throughout the period encompassing the Customer-Generator's installation, testing and commissioning, operation, maintenance, decommissioning and removal of said equipment. The PUD may verify compliance at any time, with reasonable notice.
6. The Customer-Generator shall comply with the requirements in (6)(a), (b) and (c) of this subsection. However, at its sole discretion, the PUD may approve alternatives that satisfy the intent of, and/or may excuse compliance with, any specific elements of these requirements except requirements of local, state and federal requirements.
  - (a) Code and standards. Customer-Generator 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-Generator shall be responsible to obtain all applicable permit(s) for the equipment installations on its 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 at 29 CFR 1910.269, the NEC, Washington Administrative Code (WAC) rules, the Washington Division of Occupational Safety and Health (DOSH) 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-Harmonic Limits.
7. Momentary Paralleling of Standby Generators. Protective relays to isolate the generation facility for faults in the PUD's distribution system are not required if the paralleling operation is automatic and designed to take place for less than one hundred milliseconds. Parallel operation of the generation facility with the PUD distribution system shall be prevented when the PUD line is dead or out of phase with the generation facility. The Customer-Generator must submit the control scheme for automatic paralleling for review and acceptance by the PUD before the generating facility will be allowed to interconnect or test the interconnection.

## **B. Specific interconnection requirements**

1. Customer-Generator shall furnish and install on Customer-Generator's side of the meter, a UL-approved manual safety disconnect switch which shall be capable of fully disconnecting the generating facility from PUD 1's electric system. The disconnect switch shall be located outdoors adjacent to PUD meters and shall be of the visible break type in a metal enclosure which can be secured by a PUD padlock. The disconnect switch shall be accessible to PUD personnel at all times.
2. The PUD shall have the right to disconnect the generating facility at the disconnect switch under the following circumstances: When necessary to maintain safe electrical operating conditions; if the generating facility does not meet required standards; or if the generating facility at any time adversely affects or endangers any person, the property of any person, the PUD's operation of its electric system or the quality of PUD's service to other customers.
3. Nominal voltage and phase configuration of the generating facility must be compatible to the PUD system at the point of common coupling.
4. Customer-Generator must provide evidence that its generation will never result in reverse current flow through the PUD's network protectors. All instances of interconnection to secondary spot distribution networks shall require review and written pre-approval by PUD. Interconnection to distribution secondary grid networks is not allowed. Closed transition transfer switches are not allowed in secondary network distribution systems.

## **C. Specifications applicable to all inverter-based interconnections**

Any Customer-Generator desiring to interconnect an inverter-based generating facility with the PUD's electric system or modify an existing interconnection must meet the technical specifications, as set forth below. A more recent approved version may supersede specifications on the list below.

1. IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, for system 10 KVa or less.
2. UL Standard 1741, Inverters, Converters, and Controllers for Use in Independent Power Systems. Equipment must be UL listed.
3. IEEE Standard 929, IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems.
4. To protect and ensure the reliability of the PUD's distribution feeder, prevent voltage fluctuations, and prevent possible future costs to other utility customers to upgradethe

PUD's system, the PUD may specify enhanced (smart) inverter characteristics for interconnected facilities.

#### **B) Requirements applicable to all non-inverter-based interconnections**

Non-inverter-based interconnection requests may require more detailed PUD review, testing, and approval, at the Customer-Generator's cost, of the equipment proposed to be installed to ensure compliance with applicable technical specifications, in their most current approved version, including:

1. IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, for systems 10 KVA or less.
2. ANSI Standard C37.90, IEEE Standard for Relays and Relay Systems Associated with Electric Power Apparatus.
3. Customer-Generators proposing such interconnection may also be required to submit a power factor mitigation plan and/or other studies or plans as appropriate for PUD review and approval.

### Chapter 4: Application for Interconnection

#### **1. Application**

The Customer-Generator seeking to interconnect a generating facility under these rules must fill out and submit a signed application form to the PUD. Information must be accurate, complete, and approved by the PUD prior to installing the generating facility; however, **approval of the application as "complete" does not constitute approval to interconnect.** A standard application form shall be made available on the PUD's website.

If a project is to be installed in a phased-in manner, the Customer Generator may choose to submit application for approval of the final project size or may choose to submit applications at each stage of the project. Each application will be evaluated based on the nameplate rating stated on the application.

- a. If the final project size is applied for and the requirements are met, then the Customer Generator must notify the PUD as additional units are added. Failure to notify the PUD may result in the disconnection of service.
- b. If applications are submitted for different stages of a project, the size may not be increased beyond that approved.

#### **2. Non-Discrimination**

All Customer-Generator interconnection applications pursuant to this chapter will be processed by the PUD in a non-discriminatory manner.

#### **3. Application Evaluation**

All generation interconnection requests pursuant to this chapter will be reviewed by the PUD for compliance with the rules of this chapter. If the PUD, in its sole discretion, finds that the application does not comply with this chapter, the PUD may reject the application. If the PUD rejects the application, it shall provide the Customer-Generator with written notification stating its reasons for rejecting the application.

## Chapter 5: Interconnection Agreements and Costs

1. Once an application is accepted by the PUD as complete, the PUD shall determine if any additional engineering, safety, reliability or other studies are required.
2. If the PUD determines that additional studies are required, the PUD will provide to the Customer-Generator a Study Agreement. The Study Agreement shall include a description of the studies and a good faith estimate of the cost to perform the studies. The Customer-Generator shall have thirty (30) business days to return the completed Study Agreement along with any deposit required by the PUD against the estimated costs.
  - a. Upon completion of the studies, the PUD shall provide the Customer-Generator with the results of the studies, including any additional interim agreements, such as construction agreements, that may be necessary and a cost estimate to complete the interconnection. If the studies determine that the interconnection is denied pursuant to RCW 80.60, the PUD shall provide notice of denial to the applicant and the reasons for the denial.
3. The PUD shall provide an Interconnection Agreement to the Customer-Generator to be completed and executed within thirty (30) days.
  - a. Failure to return completed agreements within the time frames specified in subsections 2 and 3 of this section may result in termination of application process by the PUD. Terms and conditions for termination of the Interconnection Agreement shall be contained within such agreement.

## Chapter 6: General Terms and Conditions of Interconnection

The general terms and conditions listed in this section shall apply to all generating facilities interconnecting to the PUD under this chapter.

To ensure system safety and reliability of interconnected operations, all interconnected generating facilities shall be constructed and operated by Customer- Generator in accordance with these standards and all other applicable federal, state, and local laws and regulations.

### 1. Required Records

Customer-Generator shall promptly furnish the PUD with copies of plans, specifications, records and other information relating to the generating facility or the ownership, operation, use or maintenance of the generating facility, as may be reasonably requested by the PUD from time to time.



## **2. Unauthorized Connections**

For the purposes of public and working personnel safety, any non-approved generation interconnections discovered will be immediately disconnected from the PUD system.

## **3. Dedicated Distribution Transformer**

To ensure reliable service to all PUD customers and to minimize possible problems for other customers, the PUD will review the need for a dedicated-to-single-customer distribution transformer. If the PUD requires a dedicated distribution transformer, the Customer-Generator shall pay for all costs of the new transformer and related facilities.

## **4. Metering**

- a. Net metering for fuel cells, facilities that produce electricity and used and usefully thermal energy from a common fuel source, or facilities that use water, wind, solar energy, or biogas from animal waste as a fuel as set forth in chapter 80.60 RCW: The PUD shall install, own, and maintain an advanced 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, demand, power factor, voltage and such other parameters as the PUD shall specify. The Customer-Generator shall provide space for metering equipment. It will be the Customer-Generator's responsibility to provide the current transformer enclosure (if required), meter socket(s) and junction box after the Customer-Generator has submitted drawings and equipment specifications for PUD approval. The PUD may approve other generating sources for net metering but is not required to do so.
- b. Production metering: The PUD 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-Generator.

## **5. Labeling**

Common labeling furnished or approved by the PUD 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.

## **6. Insurance & Liability**

No additional insurance will be necessary for a net metered facility that is a qualifying generating facility under chapter 80.60 RCW. A qualifying facility under RCW 80.60 is one that is 100 kW or less; and that uses water, wind, solar energy, or biogas from animal waste as a fuel, fuel cells, or that produces electricity and used and useful thermal energy from a common fuel source. For

other generating facilities permitted under these standards but not a qualifying facility under chapter 80.60 RCW, additional insurance, limitations of liability and indemnification may be required by the PUD. If additional insurance is required, it is the responsibility of the Customer-Generator to update the PUD of any changes to Customer-Generator's policy.

**7. Future Modification or Expansion**

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

**8. PUD 1 System Capacity**

For the overall safety and protection of the PUD system, chapter 80.60 RCW currently limits interconnection of generation for net metering to 4.00% of the PUD's peak demand during 1996. Additionally, interconnection of generating facilities to individual distribution feeders will be limited to 10% of the feeder's peak capacity. However, the PUD may, in its sole discretion, allow additional generation interconnection beyond these stated limits, or, if indicated by engineering, safety or reliability studies, restrict or prohibit new or expanded interconnected generation capacity on any feeder, circuit or network.

**9. Customer-Generator Utilized Equipment Protection**

It is the responsibility of the Customer-Generator to protect its facilities, loads and equipment and comply with the requirements of all appropriate standards, codes, statutes, and authorities.

**10. Interconnection Costs**

Charges by the PUD to the Customer-Generator in addition to the application fee, if any, will be compensatory and applied as appropriate. Such costs may include, but are not limited to, transformers, production meters, and PUD testing, qualification, and approval of non-UL 1741 listed equipment. The Customer-Generator shall be responsible for any costs associated with any future upgrade or modification to its interconnected system required by modifications in the PUD's electric system.

**11. Not Governed by this Section**

This section does not govern the settlement, purchase or delivery of any power generated by Customer-Generator'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-Generator 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 commission. Any such agreement shall be complete prior to initial operation and filed with the PUD.

## **12. Disconnection**

Customer-Generators may disconnect the generating facility at any time, provided that the Customer-Generator provides reasonable advance notice to the PUD.

## **13. Sale or Transfer of Generating Facility**

Customer-Generator shall notify the PUD prior to the sale or transfer of the generating facility, the interconnection facilities, or the premises upon which the facilities are located. The Customer-Generator shall not assign its rights or obligations under any agreement entered into pursuant to these rules without the prior written consent of PUD 3, which consent shall not be unreasonably withheld.

### **Chapter 7: Certificate of Completion**

All generating facilities must obtain an electrical permit and pass electrical inspection before they can be connected or operated in parallel with the PUD's electric system. Customer-Generators shall provide to PUD written certification that the generating facility has been installed and inspected in compliance with the local building and/or electrical codes.

### **Chapter 8: Filings**

The PUD shall maintain on file for inspection at its place of business, the charges, terms and conditions for interconnections pursuant to this chapter. Such filing shall include model forms of the following documents and contracts:

1. Application
2. Model interconnection agreement
3. Certificate of completion