

AVISTA CORPORATION

WASHINGTON STATE JURISDICTIONAL

INTERCONNECTION PROCESS AND STANDARDS

FOR

GENERATING FACILITIES

OF

500 KILOWATTS OR LESS

Version History

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Washington State Jurisdictional Interconnection Process and Standards
For
Generating Facilities 500 kW or Less

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**WASHINGTON STATE JURISDICTIONAL INTERCONNECTION
PROCESS AND STANDARDS
FOR
GENERATING FACILITIES
500 KILOWATTS OR LESS**

I. General Conditions

This document states the general conditions and requirements and technical specifications for the safe and reliable operation of interconnected generating facilities, 500 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 Avista (hereinafter referred to as "the Company"), the Company.

This document does not govern the settlement, purchase or delivery of any power generated by the Interconnection Customer's Generating Facility. The purchase or delivery of power, including Net Metering of electricity pursuant to chapter 80.60 RCW, power purchases and sales to PURPA qualifying facilities pursuant to chapter 480-107 WAC, and other services that the Interconnection 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 Commission. Any such agreement shall be completed prior to Initial Operation and filed with the Commission.

Please note that the following documents are referenced in this document:

1. **0kW to 500kW – Requirement A – Application**
2. **0kW to 500kW – Requirement B – Interconnection Agreement**
3. **26kW to 500kW – Requirement C – Feasibility Study Agreement**
4. **0kW to 500kW – Requirement E – Certificate of Completion**

Note: Capitalized terms shall have the meaning of the word as defined in Section IV, Definitions.

A. Electrical Generating Systems (500 kW and Smaller)

Any electrical Generating Facility with a maximum nameplate capacity rating of 500 kW or less must comply with these conditions to be eligible to interconnect and operate in parallel with the Company's Electric System. The conditions under this Section I apply to all generating facilities that are intended to operate in parallel with the Company's Electric System irrespective of whether the Interconnection Customer intends to generate energy to serve all or a part of the Interconnection Customer's load; or to sell the output to the Company or any third party purchaser.

B. Interconnection Application

Each customer seeking to interconnect qualifying generation shall fill out and submit an application form to the Company. Information must be accurate, complete, and approved by the Company prior to interconnecting the Generating Facility.

The Company shall stamp all interconnection Applications to document the date and time received. The original date and time stamp affixed to the interconnection Application will serve as the beginning point for purposes of any timetables in the application and review process.

Upon receipt of an interconnection Application, the Company shall notify the Interconnection Customer within five Business Days that the Application was received. Within ten Business Days from the notice of receipt the Company will notify the Interconnection Customer regarding whether the interconnection Application is complete or incomplete. If the Application is incomplete, the Company shall provide a written list detailing all additional information necessary to complete the application. The Interconnection Customer must supply the necessary information or request an extension of time within fifteen Business Days of the notice of incomplete Application. If the Interconnection Customer does not provide, within fifteen Business Days of the notice of incomplete Application, the listed information necessary to complete the application or request an extension of time, the Company may reject the application. The Company may, but is not required to, grant an extension of time in writing.

C. Application Fees

Interconnection Customers will be charged an interconnection Application fee of \$100 for Generating Facilities from 0 kW to 25 kW. Customers will be charged an interconnection Application fee of \$500 for Generating Facilities from 26 kW to 500 kW.

D. Application Prioritization

All generation interconnection Applications for facilities 500 kW or less from customers will be prioritized by the Company based on the date of receipt of Interconnection Customer's complete Application. The Company will process the application and provide Interconnection in a time frame consistent with the average of other service connections.

E. Interconnection Agreement

Prior to Interconnection all qualifying customers shall obtain a Certificate of Completion and sign an appropriate Interconnection Agreement. This Agreement between the Company and the Interconnection Customer outlines the interconnection standards 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 Company Electric System.

G. Technical Specifications

All technical specifications are contained in Section IV. The Interconnection Customer shall promptly furnish the Company with copies of any plans, specifications, records, and other information relating to the Generating Facility

or the ownership, operation, use, Company access to, or maintenance of the Generating Facility, as may be reasonably requested by the Company from time to time.

H. Dedicated Distribution Transformer

To ensure reliable service to all Company customers and to minimize possible problems for other customers, the Company will review the need for a dedicated distribution transformer for the Interconnection Customer. Interconnecting generation under 500 kW may require a separate transformer. If the Company requires a dedicated distribution transformer, the Interconnection Customer shall pay for all costs of the new transformer and related facilities.

I. Metering

Net Metering (for solar, wind, hydropower fuel cells and facilities that simultaneously produce electricity and useful thermal energy as set forth in chapter 80.60 RCW):

The Company will 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 Company specifies. The Interconnection Customer must provide space for metering equipment. The Interconnection Customer must provide the current transformer enclosure (if required), meter socket(s) and junction box after the Interconnection Customer has submitted drawings and equipment specifications for Company approval. The Company may approve other generating sources for Net Metering but is not required to do so.

Production Metering:

The Company may require separate metering, including, if necessary for safety or reliability, metering capable of being remotely accessed, for production. This meter shall record all generation produced and may be billed separately from any Net Metering or customer usage metering. Costs associated with production metering will be paid by the Interconnection Customer.

Production Metering Incentive:

Upon completion of interconnection the Company will provide required documentation for the Interconnection Customer to receive Renewable Generation Incentive as described in the WAC 458-20-273. The Company will distribute Renewable Generation Incentives annually after receipt of completed Renewable Generation Incentive documentation and certification of the Interconnection Customer's generating system from the Department of Revenue.

J. Labeling

Common labeling furnished or approved by the Company and in accordance with NEC (Articles 690 and 705) requirements must be posted on the 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 chapter 80.60 RCW (Net Metering) and WAC 480-108 (Interconnection Standards), no additional insurance will be necessary for Interconnections that qualify for Net Metering or that have a Nameplate Capacity under 100 kW.

For all other Interconnection Customers, additional liability limitations and indemnification may be required. If required, additional insurance, limitations of liability and indemnification will be determined by the Company and provided to the interconnection customer prior to execution of the Interconnection Agreement. Qualifying generation must meet these interconnection standards and maintain compliance with these standards during operation.

The Interconnection Customer is responsible for protecting its facilities, loads and equipment and complying with the requirements of all appropriate standards, codes, statutes and authorities.

L. Future Modification or Expansion

The Company must review and approve any future modification or expansion of an interconnected Generating Facility. The Company may require the Interconnection Customer to provide and pay for corrections or additions to existing Interconnection Facilities if government or industry regulations and standards are modified. The Company must notify the Interconnection Customer in writing of any such requirement. The Company may terminate Interconnection service if the Interconnection Customer does not within thirty Business Days of the date of the notice arrange with the Company a mutually agreed schedule to comply with such requirements.

The Interconnection Customer is responsible for costs associated with future upgrades or modification to its Generating Facility or Interconnection Facilities made necessary by modifications the Company makes to its Electric System.

M. Avista System Capacity

For the overall safety and protection of the Avista system, the Interconnection of generation for Net Metering is limited to 0.5% of Avista's peak load in 1996 after December 31, 2013. Additionally, Interconnection of qualified generation to individual distribution feeders will be limited to 15% of the circuit's (feeder's) peak load. However, it is at the discretion of Avista to allow additional generation Interconnection beyond these stated limits.

N. Equipment Protection

It is the responsibility of the Interconnection Customer to protect its 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, shall be cost based and applied as appropriate. For example, costs may be incurred for transformers, production meters, and Company testing, qualification, studies and approval of non UL 1741 listed equipment.

P. Safety

To ensure system safety and reliability of interconnected operations, all interconnected generating facilities must be constructed and operated in accordance with this Section I and all other applicable federal, state, and local laws and regulations.

Q. Certificate of Completion

Prior to Initial Operation, all Interconnection Customers must submit a completed Certificate of Completion to the Company, execute an appropriate Interconnection Agreement and any other agreement(s) required for the disposition of the Generating Facility's electric power output. The Interconnection Agreement between the Company and the Interconnection Customer outlines the interconnection standards, cost allocation and billing agreements, and on-going maintenance and operation requirements.

R. Disconnection

The Interconnection Customer may disconnect the Generating Facility at any time after providing reasonable advance notice to the Company.

The Company has the right to disconnect the Generating Facility:

- (i) When necessary to maintain safe electrical operating conditions;
- (ii) If the Generating Facility does not meet required standards; or
- (iii) If the Generating Facility at any time adversely affects or endangers any person, the property of any person, the Company's operation of its Electric System or the quality of the Company's service to other customers.

Reasonable advance notice of disconnect will be provided by Company before any scheduled disconnection, and after any unscheduled disconnection.

S. Transfer of Ownership

The Interconnection Customer must provide notice of sale or transfer of the Interconnection Customer's Generating Facility, Interconnection Facilities or the premises upon which the Interconnection Facilities are located to the Company within 30 days. To continue Interconnection service to a new owner, the new owner will be required to execute a new Interconnection Agreement with the Company.

T. Dispute Resolution

An Interconnection Customer may ask the Commission to review the Company's study costs, interconnection facility costs, system upgrade costs, deposit requirements, assignment of costs to the Interconnection Customer or the Company's processing, termination, denial or rejection of an application by making an informal complaint under WAC 480-07-910, or by filing a formal complaint under WAC 480-07-370.

II. Eligibility

A. Tier 1 – Generating Facilities from 0 kW to 25 kW

Interconnection of a generating facility will use Tier 1 processes and technical requirements if the proposed generating facility meets all of the following criteria:

- i. Uses inverter-based interconnection equipment;
- ii. Is single phase;
- iii. Has a nameplate capacity of 25 kW or less;
- iv. Is proposed for interconnection at secondary voltages (600 V class);
- v. Requires no construction or upgrades to electrical company facilities, other than meter changes;
- vi. The aggregated generating capacity on the service wire does not exceed the service wire capability;
- vii. The aggregated generating capacity on the transformer secondary does not exceed the nameplate of the transformer;
- viii. If proposed to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 5 kVA; and
- ix. The aggregated nameplate capacity of all generating facilities on any line section does not exceed fifteen percent of the line section annual peak load as most recently measured or calculated for that line section, or fifteen percent of the circuit annual peak load as most recently measured or calculated for the circuit. For the purposes of this subsection:
 - a. "All generating facilities" means all interconnected generating facilities, the proposed generating facility, and all other proposed generating facilities already in the queue defined in WAC 480-108-030(7); and
 - b. "Line section" means that portion of an electric system connected to the generating facility and bounded by sectionalizing devices or the end of the distribution line.

B. Tier 2 – Generating Facilities from 26 kW to 500 kW

Interconnection of a generating facility will use Tier 2 processes and technical requirements if the proposed generating facility meets all of the following criteria:

- i. It does not qualify for Tier 1 interconnection applicability requirements;
- ii. Has a nameplate capacity of 500 kW or less;
- iii. Is proposed for interconnection to an electric system distribution facility operated at or below 38 kV class;

- iv. Is not a synchronous generator;
- v. If it is proposed to be interconnected on a shared secondary, the aggregate generating capacity on the shared secondary, including the proposed generating facility, must not exceed the lesser of the service wire capability or the nameplate of the transformer;
- vi. The aggregated nameplate capacity of all generating facilities on any line section does not exceed fifteen percent of the line section annual peak load as most recently measured or calculated for that line section, or fifteen percent of the circuit annual peak load as most recently measured or calculated for the circuit. For the purposes of this subsection:
 - a. "All generating facilities" means all interconnected generating facilities, the proposed generating facility, and other proposed generating facilities already in the queue defined in WAC 480-108-030(7); and
 - b. "Line section" means that portion of an electric system connected to the generating facility and bounded by sectionalizing devices or the end of the distribution line;
- vii. Any upgrades required to the electric system must fall within the requirements in subsection (IV)(D)(2)(ii) of this section;
- viii. For interconnection of a proposed generating facility to the load side of spot network protectors, the proposed generating facility must utilize an inverter. The aggregate nameplate capacity of all inverter-based systems must not exceed the smaller of five percent of a spot network's maximum load or 50 kW;
- ix. The aggregated nameplate capacity of existing and proposed generating facilities must not contribute more than ten percent to the distribution circuit's maximum fault current at the point on the primary voltage distribution line nearest the point of interconnection; and
- x. The generating facility's point of interconnection must not be on a circuit where the available short circuit current, with or without the proposed generating facility, exceeds 87.5 percent of the interrupting capability of the electrical company's protective devices and equipment (including substation breakers, fuse cutouts, and line reclosers).

III. Interconnection Process

A. Review Process for Generating Facilities from 0 kW to 25 kW:

Once an Application is accepted by the Company as complete, the Company will review the Application to determine if the proposed interconnection complies with the eligibility and technical standards contained herein and determines if the proposed interconnection is within the individual circuit (feeder) limit as described in Section I(M). The Company must notify the Interconnection Customer of the result of these determinations within twenty Business Days of when the application is deemed complete.

If the Company notifies the Interconnection Customer that the request complies with the eligibility and technical requirements contained herein, the Company shall offer the Interconnection Customer an executable Interconnection

Agreement with such notification. The Company shall also provide any additional interim agreements, such as construction agreements, that may be necessary and a good faith estimate of the cost and time necessary to complete the Interconnection. The Interconnection Customer must execute and return the completed agreement(s) within thirty Business Days following receipt. The Interconnection Customer must simultaneously pay any additional costs required by the Company to complete the Interconnection.

The Interconnection Customer must interconnect and operate the Generating Facility within one year from the date of approval of the application, or the application expires, unless the Company, in its sole discretion, grants an extension in writing.

B. Review Process for Generating Facilities from 26 kW to 500 kW:

Once an Application is accepted by the Company as complete, the Company will review the Application to determine if the proposed interconnection complies with the eligibility and technical standards contained herein and to determine whether any additional engineering, safety, reliability or other studies are required. The Company must notify the Interconnection Customer of the result of these determinations within thirty Business Days of when the application is deemed complete.

If the Company notifies the Interconnection Customer that the request complies with the technical requirements established in WAC 480-108-020 and no additional studies are required to determine the feasibility of the Interconnection, the Company shall offer the Interconnection Customer an executable Interconnection Agreement within five Business Days of such notification. The Company shall also provide any additional interim agreements, such as construction agreements, that may be necessary and a good faith estimate of the cost and time necessary to complete the Interconnection. The Interconnection Customer must execute and return the completed agreement(s) within thirty Business Days following receipt. The Interconnection Customer must simultaneously pay any additional costs required by the Company to complete the Interconnection.

If the Company determines that additional studies are required to determine the feasibility of the Interconnection, the Company shall notify the Interconnection Customer within thirty Business Days of when the application is deemed complete and shall provide the Interconnection Customer a form of agreement that includes a description of what studies are required and a good faith estimate of the cost and time necessary to perform the studies. After the Company and the Interconnection Customer agree on the estimated cost of the required studies Interconnection Customer must execute and return the completed agreement within thirty Business Days along with any costs required by the Company.

The Company will provide the Interconnection Customer with the results of the studies within a reasonable time period consistent with time requirements for the studies and other service requests of a similar magnitude. If the studies determine

that the interconnection is not feasible, the Company will provide notice of denial to the Interconnection Customer and the reasons for the denial.

If the studies conducted during the Review Process determine that the interconnection is feasible, the Company shall notify the Interconnection Customer and provide an executable Interconnection Agreement to the Interconnection Customer within five Business Days of such notification. The Company shall also provide any additional interim agreements, such as construction agreements, that may be necessary and a good faith estimate of the cost and time necessary to complete the interconnection. The Interconnection Customer must execute and return the completed agreement(s) within thirty Business Days following receipt. The Interconnection Customer must simultaneously pay any costs required by the Company to complete the interconnection.

The Interconnection Customer must interconnect and operate the Generating Facility within one year from the date of approval of the application, or the application expires, unless the Company, in its sole discretion, grants an extension in writing.

C. Withdrawal

An Interconnection Customer's failure to execute and return completed agreements and required deposits within the time frames specified in this section may result in termination of the application process by the Company under terms and conditions stated in such agreements.

The Interconnection Customer shall be responsible for all reasonable costs incurred by the Company to study the proposed Interconnection and to design, construct, operate and maintain any required Interconnection Facilities or system upgrades all as required under the charges, terms and conditions stated in the study agreement(s) and Interconnection Agreement required above.

IV. Technical Specifications

This Section sets forth the technical specifications and conditions that must be met to interconnect non-Company-owned electric generation, 500 kW or less, for parallel operation with the distribution system of the Company.

A. General Interconnection Requirements

1. The terms, conditions, and technical requirements listed herein shall apply to the Interconnection Customer and Generating Facility throughout the period encompassing the Interconnection Customer's installation, testing and commissioning, operation, maintenance, decommissioning and removal of said equipment. The Company may verify compliance at any time, with reasonable notice.
2. Any Generating Facility proposing to interconnect with the Company Electric System or any proposed change to a Generating Facility that

requires modification to an existing interconnection agreement must meet all applicable terms, conditions and technical requirements, as set forth in the following documents and standards and requirements in this Section in their most current approved version at the time of interconnection.

3. The terms, conditions, and technical requirements listed herein are intended to mitigate possible adverse impacts caused by the Generating Facility on the Company's equipment and personnel and on other customers of the Company. They are not intended to address protection of the Generating Facility or its internal load, or Generating Facility personnel. The Interconnection Customer is responsible for complying with the requirements of all appropriate standards, codes, statutes, and authorities to protect its own facilities, personnel, and loads.
4. The Company may refuse to establish or maintain interconnection with any Interconnection Customer that fails to comply with the requirements in (a), (b), (c), and (d) of this subsection. However, at its sole discretion, the Company may approve alternatives that satisfy the intent of, and/or may excuse compliance with, any specific elements of these requirements except local, state and federal building codes.
 - a. **Code and Standards.** All interconnections must 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 standards of the Institute of Electrical and Electronics Engineers (IEEE); the standards of the North American Electric Reliability Corporation (NERC); the standards of the Western Electricity Coordinating Council (WECC); American National Standards Institute (ANSI); Underwriters Laboratories (UL) standards; local, state and federal building codes, and any Company's written electric service requirement approved by the Commission. The Company may require verification that an Interconnection Customer has obtained all applicable permit(s) for the equipment installations on its property.
 - b. **Safety.** All safety and operating procedures for Interconnection Facilities must comply with the Occupational Safety and Health Administration (OSHA) Standard at 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 must be in compliance with all applicable standards including, without limitation, IEEE Standard 519 Harmonic Limits, and IEEE Standard 141 Flicker as measured at the PCC.
 - d. **Power factor.** Generating Facility must be designed so that when it is operating in parallel with the Electric System it shall operate at a power factor within .95 leading and .95 lagging.

5. Any electrical generating facility must comply with this chapter to be eligible to interconnect and operate in parallel with the electric system. These specifications and standards shall apply to all interconnecting generating facilities that are intended to operate in parallel with the electric system regardless of whether the interconnection customer intends to generate energy to serve all or a part of the interconnection customer's load; or to sell the output to the electrical company or any third party purchaser.
6. In order to ensure system safety and reliability of interconnected operations, all interconnected Generating Facilities shall be constructed, operated and maintained by the Interconnection Customer in accordance with this section, with the Interconnection Agreement, with the applicable manufacturer's recommended maintenance schedule and operating requirements, good electric company practice, and all other applicable federal, state, and local laws and regulations.
7. This section does not govern the settlement, purchase, sale, transmission or delivery of any power generated by the Interconnection Customer's Generating Facility. The purchase, sale or delivery of power, including net metered electricity pursuant to chapter 80.60 RCW, and other services that the Interconnection customer may require will be covered by a separate agreement or pursuant to the terms, conditions and rates as may be from time to time approved by the commission. Separate agreements may be required with the electrical company, the balancing area authority or transmission provider, or other party but not necessarily with the Company. Any such agreement shall be complete prior to initial operation.
8. An Interconnection Customer shall promptly furnish the Company with copies of such 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 Company from time to time.

B. Inverter Based Interconnection Requirements, as Applicable

If an inverter is utilized, the inverter must be certified by an independent, nationally recognized testing laboratory to meet the requirements of UL 1741. Inverters certified to meet the requirements of UL 1741 must use undervoltage, overvoltage, and over/under frequency elements to detect loss of electrical company power and initiate shutdown.

C. Non-Inverter Based Interconnection Requirements

The Interconnection Customer shall comply with the following requirements for non-inverter based interconnections. At its sole discretion, the Company may

approve alternatives that satisfy the intent of, and/or may excuse compliance with, any specific elements of the requirements contained in this Section.

The Application for such Interconnection may require more detailed review, testing, and approval by the Company, at the Interconnection Customer's cost, of the equipment proposed to be installed to ensure compliance with applicable standards. The applicable standards that the Interconnection Customer shall comply with for non-inverter based interconnections include:

- 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.
- Interconnection Customers proposing non-inverter-based interconnections may also be required to submit a power factor mitigation plan for Company review and approval.

D. Specific Interconnection Requirements

1. Tier 1 - Generating Facilities from 0 kW to 25 kW

- i. The purpose of the protection required for Tier 1 generating facilities is to prevent islanding and to ensure that inverter output is disconnected when the electric system is deenergized.
- ii. An interrupting device must be provided which is capable of safely interrupting the maximum available fault current (typically the maximum fault current is that supplied by the electrical company).
- iii. The Generating Facility must operate within the voltage and power factor ranges specified by the electrical company and as allowed by Underwriters Laboratories standard (UL) 1741.
- iv. **Disconnect switch.** Unless the Washington state department of labor and industries requires a visible, lockable AC disconnect switch, the Company shall not require a visible, lockable AC disconnect switch for Interconnection Customers installing and operating an inverter-based UL 1741 certified system interconnected through a self-contained socket-based meter of 320 amps or less. If the Interconnection Customer chooses to install a visible, lockable AC disconnect switch the Company will give the customer a credit of \$150 to offset the cost to install the production meter.

2. Tier 2 - Generating Facilities from 26 kW to 500 kW

- i. In all cases, the interconnection facilities must isolate the Generating Facility from the electric system as specified by IEEE 1547, and the Interconnection Agreement. The Interconnection customer shall prevent its Generating Facility equipment from automatically reenergizing the electric system as specified by IEEE 1547, and the Interconnection Agreement. For inverter-based systems, the interconnecting facility must

comply with IEEE 1547, UL 1741 and the Interconnection Agreement set forth by the Company. For non-inverter based systems a separate protection package will be required as described in section IV (C).

- ii. If the Generating Facility fails to meet the characteristics for Tier 2 applicability, but the Company determines that the Generating Facility could be interconnected safely if minor modifications to the transmission or distribution system were made (for example, changing meters, fuses, or relay settings), then the Company may offer the Interconnection Customer a good-faith, nonbinding estimate of the costs of such proposed minor modifications. If the Interconnection Customer authorizes the Company to proceed with the minor modifications and agrees to pay the entire cost of the modifications, then the Company may approve the application using Tier 2 processes and technical requirements.
- iii. For proposed Generating Facilities 50 kW and greater, three-phase connection may be required by the Company.
- iv. For three-phase induction generator interconnections, the Company may, in its sole discretion, specify that ground fault protection must be provided. Use of ground overvoltage or ground overcurrent elements may be specified, depending on whether the Company uses three-wire or effectively grounded four-wire systems.
- v. If the Generating Facility is single-phase and interconnected on a center tap neutral of a 240 volt service, it must not create an imbalance between the two sides of the 240 volt service of more than 5 kW.
- vi. If the Generating Facility is proposed for interconnection at primary (greater than 600 V class) distribution voltages, the connection of the transformer(s) used to connect the Generating Facility to the electric system must be the Company's standard connection. This is intended to limit the potential for creating overvoltages on the electric system for a loss of ground during the operating time of functions designed to prevent islanding.
- vii. For primary-voltage connections to three-phase, three-wire systems, the transformer primary windings must be connected phase to phase.
- viii. For primary-voltage connections to three-phase, four-wire systems, the transformer primary windings may be connected phase to neutral.
- ix. **Disconnect switch.**
 - a. Except as provided in subsections b., c., and d. of this subsection, the Generating Facility must include a visible, lockable AC disconnect switch. The Company shall have the right to disconnect the generating facility at a UL listed disconnect switch to meet Company operating safety requirements.
 - b. The Company may waive the visible, lockable disconnect switch requirement for an inverter-based system.
 - c. To maintain Company operating and personnel safety in the absence of an external disconnect switch, the Interconnection Customer shall agree that the Company has the right to disconnect electric service through other means if the Generating Facility must be physically disconnected for any reason, without liability to the Company. These actions to disconnect the Generating Facility

(due to an emergency or maintenance or other condition on the electric system) will result in loss of electrical service to the customer's facility or residence for the duration of time that work is actively in progress. The duration of outage may be longer than it would otherwise have been with an AC disconnect switch.

- d. In the absence of an external disconnect switch, the Interconnection Customer is required to operate and maintain the inverter in accordance with the manufacturer's guidelines, and retain documentation of commissioning. In the absence of such documentation the Company may, with 5 days' notice and at the Interconnection Customer's expense, test or cause to be tested the inverter to ensure its continued operation and protection capability. The person that tests the inverter shall provide documentation of the results to both the Company and the Interconnection Customer. Should the inverter fail the test, the Company may disconnect the Generating Facility, and require the Interconnection Customer to repair or replace the inverter. The cost of any such repair or replacement required by the Company shall be the sole responsibility of the Interconnection Customer.

V. 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 written notice that the Interconnection Customer provides to the Company to initiate the interconnection process.

Business Day: Monday through Friday excluding official federal and state holidays.

Certificate of Completion: The form that must be completed by the Interconnection Customer and the electrical inspector and approved by the Company indicating completion of installation and inspection of the Interconnection.

Commission: The Washington Utilities and Transportation Commission.

Electric System: All electrical wires, equipment, and other facilities owned by the Company that are used to transmit electricity to customers.

Electrical Company: any public service company, as defined by RCW 80.04.010, engaged in the generation, distribution, sale or furnishing of electricity and subject to the jurisdiction of the commission.

Generating Facility: A source of electricity owned, or whose electrical output is owned, by the Interconnection Customer that is located on the Interconnection Customer's side of the point of common coupling, and all ancillary and appurtenant facilities, including

Interconnection Facilities, which the Interconnection Customer requests to interconnect to the Company's Electric System.

Initial Operation: The first time the Generating Facility operates in parallel with the Electric System.

Interconnection: The physical connection of a Generating Facility to the Electric System so that parallel operation may occur.

Interconnection Customer: The person, corporation, partnership, government agency, or other entity that proposes to interconnect, or has executed an interconnection agreement with the electrical company. The interconnection customer must:

- (a) own a generating facility interconnected to the electric system,
- (b) be a customer-generator of net-metered facilities, as defined in RCW 80.60.010(2), or
- (c) otherwise be authorized to interconnect by law.

The interconnection customer is responsible for the generating facility, and may assign to another party responsibility for compliance with the requirements of this rule only with the express written permission of the electrical company. A net metered interconnection customer may lease a generating facility from, or purchase power from, a third-party owner of an on-site generating facility.

Interconnection Facilities: The electrical wires, switches and other equipment owned by the Company or the Interconnection Customer and used to interconnect a Generating Facility to the Electric System. Interconnection Facilities are located between the Generating Facility and the Point of Common Coupling. Interconnection Facilities do not include System Upgrades.

Islanding: The condition that occurs when power from the electric system is no longer present and the Generating Facility continues exporting energy onto the electric system.

Minor Modification: A physical modification to the electric system with a cost of no more than ten thousand dollars.

Nameplate Capacity: The manufacturer's output capacity of the Generating Facility. For a system that uses an inverter to change DC energy supplied to an AC quantity, the nameplate capacity will be the manufacturer's AC output rating for the inverter(s). Nameplate capacities shall be measured in the unit of kilowatts.

Net Metering: Measuring the difference between the electricity supplied by the Company and the electricity generated by the Generating Facility that is fed back to the Company over the applicable billing period.

Network Protectors: Devices installed on a spot network distribution system designed to detect and interrupt reverse current-flow (flow out of the network) as quickly as possible, typically within three to six cycles.

Parallel Operation or Operate in Parallel: The synchronous operation of a Generating Facility while interconnected with a Company's Electric System.

Point of Common Coupling: The point where the Generating Facility's local electric power system connects to the Company'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 Company. The Point of Common Coupling is the point of measurement for the application of IEEE 1547, clause 4.

System Upgrades: The additions, modifications and upgrades to the electrical system at or beyond the Point of Common Coupling necessary to interconnect the Generating Facility. System Upgrades do not include Interconnection Facilities.

Third-party Owner: An entity that owns a generating facility located on the premises of an Interconnection Customer and has entered into a contract with the Interconnection Customer for provision of power from the Generating Facility. When a third-party owns a net-metered Generating Facility, the Interconnection Customer maintains the net metering relationship with the Company. The Company shall not allow a third-party owner to resell the electricity produced from a net metered Generating Facility.

**REQUIREMENT A - APPLICATION FOR INTERCONNECTION OF
COGENERATION OR SMALL POWER PRODUCTION ELECTRIC GENERATING
FACILITIES**

500 KILOWATTS OR LESS

Customer or Company Name: _____
Contact Person: _____
Address: _____
City: _____ State: _____ 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):

- Net Metering Interconnection, or
- PURPA Interconnection
- Non-PURPA Interconnection

Proposed Generator Interconnection, 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 Avista Utilities transformer.

If applicable, Engineering or Design Firm: _____
Contact Person _____ Phone _____

Solar PV Type:

Quantity of Solar PV Panels: _____ x Nominal Rating Watts (Each):= _____ Total Watts _
Solar Panel Manufacturer: _____, Model No. _____

Type of Array Mounting: Fixed Tracking

Inverter (Watts): _____ x # of Inverters: _____ = _____ 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 Generator:

Describe: _____

UL 1741 Listed: Yes No

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

Notice of Voltage Irregularities:

Voltage may routinely be at the upper limits of the range described in WAC 480-100-373, five percent above the standard rated voltage, and this may limit the ability of a Generating Facility to export power to the electric system.

Phased Installations:

When a project is designed for phased installation, Customer must either submit one application for final project size or may choose to submit applications at each phase of the project. Individual applications will be evaluated based on nameplate capacity stated on application. Separate application fees are required for each individual application. If single application is used customer must notify the Company as each phase is completed. If multiple applications are used for project customer may not develop the project beyond the size approved in each individual application.

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-
- Interconnection Application Fee (payable when the application is submitted for approval):** \$100 Non-Refundable Processing fee for 0 kW to 25 kW
 - \$500 Non-Refundable Processing fee for 26 kW to 500 kW

Customer Signature:

I hereby certify that, to the best of my knowledge, the information provided in this Application is true.

_____ Title: _____ Date: _____

This application is only valid for Generating Facilities that meet the codes, standards, and certification requirements of Washington State Jurisdictional Interconnection Process and Standards for Generating Facilities 500 Kilowatts or Less.

Please return this application to the Avista Utilities before purchasing and installing a power generator. All application documentation may be returned electronically to the email listed below, with the exception of the Interconnection Application Fee. Applications will not be reviewed until the Company receives the Interconnection Application Fee.

**Avista Utilities
Dan Knutson MSC-24
Distribution Engineering
1411 E. Mission Ave.
Spokane, WA 99202-1902**

**All inquiries should be made to:
Dan Knutson
509-495-4204
dan.knutson@avistacorp.com
Website: www.AvistaUtilities.com**

For Avista Utilities use only

New Transformer and Line Extension required: (Determined by Avista Utilities Engineer)

Yes No

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 500 kW or Less, and subject to the following conditions (if any):

Application received and approved by:

Name: _____

Signature: _____

Title: _____

Date: _____