



RULES FOR CUSTOMER INTERCONNECTION OF ELECTRIC GENERATING FACILITIES (NET METERING)

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Chapter 1 - Purpose and Scope

1. The purpose of this chapter is to establish rules for determining the terms, conditions, technical requirements, processes and charges governing the Interconnection of electric Generating Facilities to the electric distribution system of the Utility over which the Governing Board of Public Utility District No 1 of Franklin County (the “Franklin PUD”) has jurisdiction.
2. These rules govern the terms and conditions under which the Applicant's Generating Facility will Interconnect with, and Operate in Parallel with, the Utility's Electric System. These rules apply only to the physical Interconnection of a Generating Facility to the Utility’s electrical system. They do not govern, or grant the right to sell or purchase, or deliver any power generated by the Applicant's Generating Facility.
3. The specifications and requirements in these rules are intended to mitigate possible adverse impacts caused by a Generating Facility on Utility equipment and personnel and on other customers of the Utility. 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 Third Party Owner to comply with the requirements of all appropriate standards, codes, statutes and authorities to protect its own facilities, personnel, and loads.

Chapter 2 - Application of Rules

1. These rules include various requirements applicable to the Utility, the Applicant, the Interconnection Customer, the Third Party Owner, and the Generating Facility.
2. These rules modify, if necessary, any existing Interconnection rules of the Utility, including but not limited to, rules implementing chapter 80.60 RCW, Net Metering of Electricity.
3. These rules do not apply to interconnection of standby or backup generators that are not intended to Operate in Parallel with the Utility’s Electric System. Such interconnections will be negotiated on a case-by-case basis with the Utility and such generators shall only be interconnected on terms and conditions prescribed by the Utility.

Chapter 3 - Definitions

Applicant - means any person, corporation, partnership, government agency, or other entity applying to interconnect a Generating Facility to the Utility's Electric System pursuant to this chapter. Upon final approval, Interconnection, and operation of a facility, the Applicant becomes the Interconnection Customer, unless otherwise approved by the Utility.

Application - means the written notice, on a form prescribed by the Utility, provided by the Applicant to the Utility to initiate the Interconnection process.

Automatic Sectionalizing Device - means equipment that operates to change the topology of the electrical system (usually in response to abnormal conditions) without operator intervention.

Business Day - means Monday through Friday excluding official federal and Washington state holidays.

Electric System - means all electrical wires, equipment, and other facilities owned or provided by the Utility that are used to distribute electricity to customers.

Electrical Inspection – means the Washington State Electrical Inspector from Washington State Department of Labor & Industries, having jurisdiction over the installation of the facilities, has inspected and approved the installation.

Generating Facility - means the source of electricity and all ancillary and Interconnection facilities, located on the Applicant's or Interconnection Customer's side of the point of common coupling which an Applicant requests to interconnect, or an Interconnection Customer interconnects to the Utility's Electric System.

Governing Board - means the Board of Commissioners of Franklin PUD.

Grid Network Distribution System - 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 more than one location and more than one Utility Customer.

Initial Operation - means the first time the Generating Facility is in Parallel Operation with the Utility's Electric System.

In-Service Date - means the date when 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 Agreement - means an agreement between the Utility and the Interconnection Customer that outlines the Interconnection requirements, costs and billing agreements, and on-going inspection, maintenance and operational requirements. An executed Interconnection Agreement is required before the Generating Facility may generate electricity into and operate in parallel with the Utility's Electric System. Contents of an Interconnection Agreement may vary based upon the tier under which the Generating Facility applies and is qualified for Interconnection, and the ownership of the facility. In the case where the Interconnection Agreement does not constitute an agreement with the Utility to purchase or deliver output from the Generating Facility, the Interconnection Customer is responsible for separately making all necessary agreements for the purchase, sale, or transport of electricity from the Utility. In the case where the Interconnection Agreement is not with the owner of the Generating Facility, the Interconnection Customer may be responsible for ensuring compliance with these requirements by the Third Party Owner.

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

1. that owns, or leases, a Generating Facility Interconnected to the Utility's Electric System;
2. for net-metered facilities; is a Customer-Generator as defined in RCW 80.60.010, who is both a customer of the Utility and owner, or leasee, of the generator being Interconnected to the Utility's distribution system; or
3. is a customer of the Utility, who purchases power from, or leases facilities from a Third Party Owner; and, in all cases, has complied with these standards and any additional terms and conditions required the Utility that is otherwise allowed by law. The Interconnection Customer is responsible for the Generating Facility, and may only assign responsibility for compliance with the requirements of this rule to another party with the express written permission of the Utility.

Interconnection Facilities - means the electrical wires, switches and other equipment used to interconnect a Generating Facility to the Utility's Electric System.

Model Interconnection Agreement - means standardized terms and conditions that govern the Interconnection of Generating Facilities pursuant to these rules. 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 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 Utility for third party owned systems.

Nameplate Rating - means the manufacturer's output rating of the Generating Facility. For a system that uses an inverter to change DC energy supplied to an AC quantity, the Nameplate Rating will be the DC rating of the storage system or energy conversion apparatus (e.g. photovoltaic panels).

Parallel Operation or **Operate in Parallel** - means the synchronous operation of a Generating Facility while interconnected with the 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 Utility'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.

Spot Network Distribution System - 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 a secondary circuit serving a single location (e.g., a large facility or campus) containing one or more Utility Customer(s).

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

Utility or District - means Public Utility District No. 1 of Franklin County (the "Franklin PUD") which owns and operates the electrical distribution system, or the electrical distribution system itself, onto which the Applicant seeks to Interconnect a Generating Facility, and with which an Interconnection Customer has an Interconnection Agreement.

Witness Test - means a verification and testing conducted by the Utility to ensure Generating Facilities Operating in Parallel with the Utility's Electric System meets certain safety requirements.

Chapter 4 - Application for Interconnection

1. A standard Application form shall be made available on the Utility's web site and, where practicable, allow for electronic submission.
2. When an Applicant requests Interconnection from the Utility, the Applicant shall be responsible for conforming to the Rules and Regulations that are in effect and on file with the Utility. The Utility will designate a point of contact and publish a telephone number or web site address for providing information concerning applicable Rules and Regulations. The Applicant seeking to interconnect a Generating Facility under these rules must fill out and submit, electronically or otherwise, a signed Application form to the Utility. Information must be accurate, complete, and approved by the Utility; however, approval of the Application as complete does not constitute approval to Interconnect.
3. If a project is to be installed in a phased manner, the Applicant 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 Applicant must notify the Utility as additional units are added.
 - b. If Applications are submitted for different stages of a project, the size may not be increased beyond that approved.
4. **Application Processing Charge** - The nonrefundable Interconnection Application processing charge is set by the Utility according to facility size (or tiers in this rule) and shall be:
 - a. \$ 100.00 - 25 kW or less
 - b. \$ 500.00 - over 25 kW but less than or equal to 100 kW
 - c. \$ 1,000.00 - over 100 kW
5. **Non-Discrimination** - All Generating Facility Interconnection Applications pursuant to this chapter will be processed by the Utility in a non-discriminatory manner, consistent with other service requests, and in a manner that does not delay other service requests.
6. **Application Evaluation** - All Generating Facility Interconnection requests pursuant to this chapter will be reviewed by the Utility for compliance with the rules of this chapter. If the Utility in its sole discretion finds that the Application does not comply with this chapter, the Utility may reject the Application. If the Utility rejects the Application, it shall provide the Applicant with written or electronic mail notification stating its reasons for rejecting the Application.

Chapter 5 - Project Tiers, Procedures, and Technical Requirements

In order to facilitate the Interconnection process for both the Applicant and the Utility, these rules classify Interconnections based on shared characteristics. Expedited processes and standardized Interconnection requirements are applied to smaller Interconnections. Larger Generating Facilities using different generating and Interconnection technologies can have impacts that are more significant on the Utility's Electric System, such that more in-depth review is required and additional technical requirements may apply.

Tiers 1, 2, and 3 listed below contain initial applicability tests that will determine which tier process an Applicant and Utility will utilize, along with process descriptions, technical requirements, and completion criteria for each Tier. For Tier 3 facilities, a list of studies and other requirements are included. Additionally, all Generating Facilities must meet the appropriate requirements of Chapter 6, General Terms, Conditions, and Technical Specifications, and the rules and standards adopted by reference in Chapter 8.

Note that the Interconnection requirements listed are for protection of the Utility Electric System. The Applicant, Interconnection Customer, and Third Party Owner are responsible for providing protection for their own equipment; typically, these are two very different sets of functions.

Attachment 1 contains a flow chart describing the applicability for the Tier Process.

Chapter 6 - Additional Requirements for Third Party Owned Systems

1. If the Generating Facility is owned by a Third Party Owner, the Third Party Owner shall sign the Interconnection Customer's Application and Interconnection Agreement, authorizing the Interconnection Customer and Utility, to disconnect the generator, and cause inverters and disconnect switches to be inspected, maintained, installed, or replaced at Interconnection Customer's expense according to the provisions of these standards.
2. A Third Party Owner that does not sign the Interconnected Customer's Application and Interconnection Agreement with the Utility shall indemnify and hold harmless the Utility for any action taken by the Utility to enforce these standards or terms of the Interconnection Agreement executed between the Utility and the Utility's customer.
3. Production Meter - Any Generating Facility owned by a Third Party Owner shall require the Utility approved production meter.

Tier 1

Applicability

Interconnection of a Generating Facility will utilize Tier 1 processes and technical requirements if the proposed Generating Facility meets all of the following:

1. Uses inverter-based Interconnection equipment that is certified by an independent, nationally recognized testing laboratory to meet the requirements of UL1741.
2. Is single-phase and has a Nameplate Rating of 25 kW or less.
3. Is connected through a single-phase transformer on a radial distribution circuit.
4. Is proposed for Interconnection at secondary voltages (600 V class).
5. Does not require construction of new, or upgrade of existing Utility facilities, other than meter changes.
6. If proposed to be interconnected on single-phase shared secondary, the aggregate generating capacity on the shared secondary, including the proposed Generating Facility, shall not exceed the lesser of the service wire capability or the Nameplate Rating of the transformer.
7. 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
8. The aggregated Nameplate Rating of all Interconnected Generating Facilities, including that of the proposed Generating Facility, on any line section does not exceed 15 % of the line section annual peak load as most recently measured or calculated for that line section, or 15% of the circuit annual peak load as most recently measured or calculated for the circuit. A line section is that portion of the Utility's Electric System connected to the Generating Facility and bounded by Automatic Sectionalizing Devices or the end of the distribution line.
9. If the facility is a Generating Facility owned by a Third Party Owner, the provisions in the Additional Requirements for Third Party Owners section are satisfied.

Application Process

The following Application timelines are intended to be consistent with, and not cause delays in, other service request applications of the Utility.

1. Notice of Receipt of Application shall be sent by the Utility to the Applicant by electronic mail within five (5) business days, if the Applicant provides an electronic mail address. Otherwise, no Notice of Receipt will be provided to the Applicant.
2. Notice of Application Completeness will be provided to Applicant within ten (10) business days after Notice of Receipt of Application, and will identify areas of deficiency.

3. When a Notice of Incomplete Application is sent to an Applicant, the Applicant shall provide a complete Application to the Utility within 60 business days of the notice of incomplete Application. The Utility may, but is not required to, grant an extension beyond the 60-day Notice of an Incomplete Application. At the end of the Incomplete Application period, an Application expires, absent a complete Application from the Applicant.
4. Within 20 business days after a Notice of Application Completeness is sent to an Applicant, the Utility shall make its best effort to Approve / Approve with Conditions / Deny the Application, including written justification. If delays will result due to unforeseen circumstances, Applicant variance requests, or other incentive program approval requirements, the Applicant will be notified.
5. An Applicant has six months from the date of approval of the Application to Interconnect and begin operation of the Generating Facility, or the Application expires, unless extended by the Utility in writing. Such extension shall be at the Utility's sole discretion.
6. An Application may be denied by the Utility for public safety, system reliability, or other reasons as stated by the Utility in the denial notice. Denied Applications expire on the date of denial by the Utility.

Technical Requirements

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 Utility source of electricity is de-energized. Inverters certified by an independent nationally recognized testing laboratory to meet the requirements of UL1741 must use undervoltage, overvoltage, and over/under frequency elements to detect loss of Utility power and initiate shutdown.

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 Utility.

The Generating Facility must operate within the voltage and power factor ranges specified by the Utility. Variance may be allowed based on specific requirements, and charges may be incurred for losses.

Visible Lockable Disconnect

1. The Generating Facility must include a UL listed AC disconnect switch (removable fuses and/or lockable breakers do not meet the requirement of disconnect switch). It must be accessible to Utility personnel at any time of the day, provide a visible break, is lockable in the open position, and is located between the production meter and the sub-panel or other connection to the Generating Facility.
2. The Utility shall have the right to disconnect the Generating Facility at the disconnect switch to meet Utility operating safety requirements.

3. To maintain Utility operating and personnel safety in the absence of a functional external disconnect switch, the Interconnection Customer shall agree that the Utility 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 Utility. These other actions to disconnect the Generating Facility (due to an emergency or maintenance or other condition on the Utility's Electric System) will result in loss of electrical service to the customer's facility or premises for the duration of time that work is actively in progress. This duration of outage may be longer than it would otherwise have been with a functional AC disconnect switch.
4. The Interconnection Customer is required to operate and maintain the inverter in accordance with the manufacturer's guidelines, annually test the performance of the inverter, and retain documentation demonstrating compliance. Interconnection Customer further agrees that in the absence of such documentation, and at the Interconnection Customer's expense, to allow the Utility, at the Utility's sole discretion, to test, or cause to be tested, the inverter to ensure its continued operating and protection capability. Should the inverter fail the performance test, the Utility may disconnect the Generating Facility without notice, and may require, at Interconnection Customer's expense, either replacing the inverter or a visible lockable AC disconnect switch as described in subsection No. 1, or both, and charge the Interconnection Customer for any reconnection and other Utility costs.

Inverter Specifications

To protect and ensure the reliability of the distribution feeder, prevent voltage fluctuations, and prevent possible future costs to other Utility Customers to upgrade the Electric System, the Utility may specify enhanced inverter characteristics for Tier 1 facilities.

Completion Process

The Interconnection process is complete, the Generating Facility can begin operation, and the Applicant becomes the Interconnection Customer if, and only if:

1. All documentation demonstrating compliance with these Interconnection requirements have been provided to the Utility;
2. Electrical Inspection of System approved by the Washington State Electrical Inspector having jurisdiction over the installation;
3. The Utility witness test is successfully completed;
4. All requirements and conditions of the Interconnection Agreement have been satisfied; and
5. The Applicant and the Utility execute an Interconnection Agreement.

Tier 2

Applicability

Interconnection of a Generating Facility will utilize Tier 2 processes and technical requirements if the proposed Generating Facility meets the following:

1. It does not qualify for Tier 1 Interconnection applicability requirements.
2. Has a Nameplate Rating of 100 kW or less.
3. Is proposed for Interconnection either to a radial distribution circuit or to a spot network distribution circuit limited to serving one customer.
4. Is proposed for Interconnection to an Electric System distribution facility operated at or below 38 kV class.
5. If an inverter is utilized, the inverter must be certified by an independent, nationally recognized testing laboratory to meet the requirements of UL1741.
6. Is not a synchronous generator.
7. If it is proposed to be Interconnected on a shared secondary, the aggregate generating capacity on the shared secondary, including the proposed Generating Facility, shall not exceed the lesser of the service wire capability or the nameplate of the transformer.
8. If is single-phase and is 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 kW.
9. The aggregated Nameplate Rating of all Interconnected Generating Facilities, including that of the proposed Generating Facility, on any line section does not exceed 15 % of the line section annual peak load as most recently measured or calculated for that line section, or 15% of the circuit annual peak load as most recently measured or calculated for the circuit. A line section is that portion of the Utility's Electric System connected to the Generating Facility and bounded by automatic sectionalizing devices or the end of the distribution line.
10. Any upgrades required to the Utility's Electric System must fall within subsection No.1 of the Tier 2 Technical Requirements Section.
11. For Interconnection of a proposed Generating Facility to the load side of spot network protectors, the proposed Generating Facility must utilize an inverter-based equipment package which is certified by an independent, nationally recognized testing laboratory to meet the requirements of UL1741 and, together with the aggregated other inverter-based Generating Facilities, shall not exceed the smaller of 5 % of a spot network's maximum load or 50 kW.

12. The aggregated Nameplate Rating of existing and proposed Generating Facilities must not contribute more than 10% to the distribution circuit's maximum fault current at the point on the primary voltage distribution line nearest the point of Interconnection.
13. 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% of the interrupting capability of the Utility's protective devices and equipment (including substation breakers, fuse cutouts, and line reclosers).
14. If the Generating Facility is proposed for Interconnection at primary (>600 V class) distribution voltages, the connection of the transformer(s) used to connect the Generating Facility to the Electric System must be the Utility's standard connection. This is intended to limit the potential for creating overvoltage on the Utility's Electric System for a loss of ground during the operating time of any anti-islanding functions.
15. The primary-voltage connections to three-phase, four-wire systems, and the transformer primary windings must be connected effectively grounded, phase to neutral.
16. If the Generating Facility is owned by a Third Party Owner, the provisions in the Additional Requirements for Third Party Owners section are satisfied.

Application Process

The following Application timelines are intended to be consistent with, and not cause delays in, other service request applications of the Utility.

1. Notice of receipt of an Application shall be sent by the Utility to the Applicant by electronic mail within five (5) business days if the Applicant provides an electronic mail address; otherwise, no notice of receipt will be provided to the Applicant.
2. Response to Application completeness or incompleteness with identified areas of deficiency will be provided to Applicant within 20 business days of notice of receipt of Application.
3. When an incomplete Application notice is sent to an Applicant, the Applicant shall provide a complete Application to the Utility within 60 business days of the notice of incomplete Application. The Utility may, but is not required to grant an extension beyond the 60 business day notice of an incomplete Application. Absent a response by the Applicant to complete the Application, an Application expires at the end of the incomplete Application period.
4. Within 30 business days after a complete Application notice is sent to an Applicant, the Utility shall make its best effort to approve, approve with conditions, or deny the Application with written justification. If delays will result due to unforeseen circumstances, customer variance requests, Balancing Authority or transmission provider approvals, or incentive program approval requirements, the customer will be notified.

5. An Applicant has one year from the date of approval of the Application to Interconnect and begin operation of the Generating Facility, or the Application expires, unless extended by the Utility in writing at the Utility's discretion. An Application automatically expires on the one-year anniversary date of approval if the Interconnection has not taken place.
6. An Application may be denied by the Utility for public safety, system reliability or other reasons as stated by the Utility in the Denial Notice. Denied Applications expire on the date of denial by the Utility.

Technical Requirements

In all cases, the Interconnection facilities must isolate the Generating Facility from the Utility's Electric System when power is disconnected from its electrical system source, including but not limited to, before any reclosing (automatic or manual) takes place. The Interconnection Customer shall prevent its Generating Facility equipment from automatically re-energizing the Electric System. For inverter-based systems, this requirement is satisfied by compliance with UL 1741 requirements. For non-inverter based systems, a separate protection package will be required to meet IEEE 1547 requirements.

1. If the Generating Facility fails to meet the characteristics for Tier 2 applicability, but the Utility 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 Utility may offer the Applicant a good-faith, non-binding estimate of the costs of such proposed minor modifications. Modifications are not considered minor under this subsection if the total cost of the modifications exceeds \$10,000. If the Applicant authorizes the Utility to proceed with the minor modifications and agrees to pay the entire cost of the modifications, then the Utility may approve the Application using Tier 2 processes and technical requirements.
2. For proposed Generating Facilities 50 kW and greater, balanced three-phase, connection is required.
3. No construction of facilities by the Utility on its own Electric System shall be required to accommodate the Tier 2 Generating Facility except as allowed in subsection No. 1 of this section.
4. For three-phase induction generator Interconnections, at its sole discretion, the Utility may specify that ground fault protection must be provided. Use of ground overvoltage or ground overcurrent elements may be specified, depending on whether the Utility uses three-wire or effectively grounded four-wire systems.

5. The Interconnection Customer is required to operate and maintain the inverter, or non-inverter based protection package in accordance with the manufacturer and/or engineer's guidelines, annually test the performance of the inverter or non-inverter based protection package, and retain documentation demonstrating compliance. Interconnection Customer further agrees that in the absence of such documentation, and at the Interconnection Customer's expense, to allow the Utility, at the Utility's sole discretion, to test, or cause to be tested, the inverter or non-inverter based protection package to ensure its continued operating and protection capability. Should the inverter or non-inverter based protection package fail the performance test, the Utility may disconnect the Generating Facility without notice, and may require either replacing the inverter or non-inverter based protection package, and charge the Interconnection Customer for any reconnection and other Utility costs.

Visible Lockable Disconnect

1. The Generating Facility must include a UL listed AC disconnect switch (removable fuses and/or lockable breakers do not meet the requirement of disconnect switch), accessible to Utility personnel at any time of the day, that provides a visible break, is lockable in the open position, and is located between the production meter and the sub-panel or other connection to the Generating Facility.
2. The Utility shall have the right to disconnect the Generating Facility at the disconnect switch to meet Utility operating safety requirements.
3. The Interconnection Customer is required to test and maintain, or cause to test and maintain, the visible lockable disconnect in accordance with the manufacturer's guidelines, and retain documentation demonstrating compliance. Interconnection Customer further agrees that in the absence of such documentation, and at the Interconnection Customer's expense, to allow the Utility, at the Utility's sole discretion, to test, or cause to be tested, and certify the visible lockable disconnect, to ensure its continued operating capability. Should the visible lockable disconnect not be certified by the Utility, the Utility may disconnect the Generating Facility without notice, may require, at the Customer expense, either replacing the visible lockable disconnect switch as described in subsection No. 1 of this section, and charge the Interconnection Customer for any reconnection and other Utility costs.

Inverter Specifications

To protect and ensure the reliability of the distribution feeder, prevent voltage fluctuations, and prevent possible future costs to other Utility Customers to upgrade the Electric System, the Utility may specify enhanced inverter characteristics for Tier 2 facilities.

Completion Process

The Interconnection process is complete, the Generating Facility can begin operation, and the Applicant becomes an Interconnection Customer, if, and only if:

1. All documentation demonstrative compliance with the technical requirements for Interconnection have been provided to the Utility;
2. Electrical Inspection of System approved by the Washington State Electrical Inspector having jurisdiction over the installation;
3. All required agreements with the Balancing Authority having jurisdiction, and all agreements covering the purchase, sale or transport of electricity and provision of any ancillary services have been completed and signed by all parties;
4. The Utility witness test is successfully completed;
5. All requirements and conditions of the Interconnection Agreement have been satisfied; and
6. The Applicant and the Utility execute an Interconnection Agreement.

Tier 3

The Tier 3 Application, Approval and Completion Processes and Technical Requirement are necessarily different from Tiers 1 and 2 due to the unique and more complex characteristics of the Generating Facilities and associated Interconnection requirements. Neither the Applicant nor the Utility should expect streamlining or certainty in the timelines associated with these processes, but both should expect to apply due diligence and good faith in arriving at project approval.

Applicability

The Utility and Applicant will use Tier 3 processes and requirements to Interconnect a Generating Facility if the proposed Generating Facility does not qualify for Tier 1 or Tier 2.

Application Process

1. Notice of receipt of an Application¹ shall be sent by the Utility to the Applicant by electronic mail within 30 business days if the Applicant provides an electronic mail address; otherwise, no notice of receipt will be provided to the Applicant.
2. Response to Application completeness or incompleteness with identified areas of deficiency, except for potential studies listed below, will be provided to Applicant within 60 business days of receipt of Application.
3. When an Incomplete Application Notice is sent to an Applicant, the Applicant shall provide a completed Application to the Utility within 75 business days of the Notice of Incomplete Application. The Utility may, but is not required to, grant an extension beyond the 75 business day notice of an incomplete Application. All extensions shall be in writing by the Utility. Changes to previously completed information on an Application will be considered a new Application and shall be accompanied by a new Application fee. An Application expires at the end of the incomplete application period.
4. The Utility will approve as complete an Application that is complete in all aspects of the Application requested from the Applicant.
5. After a complete Application notice is sent to an Applicant, the Utility will complete the initial technical review and propose additional studies as required, or approve, conditionally approve, or deny the Application.
6. After an Applicant has accepted and made payment arrangements with the Utility for any listed studies, the Utility shall make its best effort to complete the required studies, consistent with time requirements for the studies and other service requests of a similar magnitude. Based on the results of the studies, the Utility and Applicant may agree to modify the previously complete Application without penalty to the Applicant. Such modified application shall be considered an approved final Application.

¹ If an Applicant has applied for Interconnection as a Tier 1 or Tier 2 project, and the Utility has determined that the Application has failed the screen for either or both Tier 1 or Tier 2 and placed it in a Tier 3 process, the clock will be reset for both parties to start the Tier 3 process.

After an Application receives final approval, Utility and Applicant will execute a construction agreement as necessary, including any payments or deposits as deemed necessary by the Utility.

7. The Utility will make its best effort to offer an Interconnection Agreement to the Applicant within 60 business days of approval of the final Application or after completion of all required studies, whichever is later.
8. Other than modifications to the complete Application described in subsection No. 5 of this section, changes by the Applicant to a previously approved completed Application will be considered a new Application and shall be accompanied by a new Application fee. Denied Applications expire on the date of denial.
9. Other than Utility delay described in subsection No. 7 of this section, an Applicant has 60 business days from the date of approval of the final Application to execute an Interconnection Agreement and must begin operation of the Generating Facility within two years of the effective date of the Interconnection Agreement, or both the Application and subsequent Interconnection Agreement automatically expire. Any extension of the two-year expiration shall be in writing by the Utility, at the Utility's sole discretion.

Technical Requirements

1. In all cases, the Interconnection facilities must isolate the Generating Facility from the Utility's Electric System when power is disconnected from its electrical system source, including but not limited to, before any reclosing (automatic or manual) takes place. The Interconnection Customer shall prevent its Generating Facility equipment from automatically re-energizing the Electric System.
2. The system design must be such that no single point of failure shall lead to loss of protective functions. This can be achieved by installing multiple discrete-function relays providing the required functions as a set, or by installing redundant multi-function devices, each of which provides all of the required functions.
3. Ground fault protection must be provided, unless waived by the Utility in writing. Use of ground overvoltage or ground overcurrent elements may be specified, depending on whether the Utility uses three-wire or effectively grounded four-wire systems.
4. Breaker failure detection must be provided, and secondary action initiated in the event that the Interconnection breaker fails to clear for the trip condition, consistent with Utility practice. This may require installation of dual generator breakers tripped by similar Interconnection relays, or a main and backup relay with the same functions and zones of protection, one of which trips the generator breaker and one that trips the main incoming breaker.

5. In addition, the Utility will evaluate the Application for Interconnection and may require at the Applicant's cost any of the following studies prior to final approval of the Application.

- Feasibility Study
- System Impact Study
- Facilities Study

These studies are intended to quantify the impacts of the Generating Facility on the Utility Electric System, and may include analysis of the following.

- Power flow
- Stability
- Metering
- Relay/Protection
- Communications/Telemetry

6. Additional studies, beyond those on this list, may be necessary as determined by the Utility.

Acceptance of the results of these analyses by the Applicant will be required as a condition of final approval of the Application and provide the basis for the detailed technical requirements for Interconnection.

Technical Review and Additional Studies

1. Technical Review - Once an Application is accepted by the Utility as complete, the Utility will review the Application to determine if the Interconnection request complies with these Tier 3 technical standards and to determine whether any additional engineering, safety, reliability or other studies are required. If the Utility determines that additional studies are required, the Utility will 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. The Utility will notify the Interconnection Customer of the result of these determinations within 30 business days of when the Application is deemed complete.

2. Approval with No Additional Studies - If the Utility notifies the Interconnection Customer that the request complies with the Tier 3 technical requirements and no additional studies are required to determine the feasibility of the Interconnection, the Utility will offer the Interconnection Customer an executable Interconnection Agreement within 60 business days of such notification. The Utility will 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.

3. Cost of Additional Studies and Upgrades

a. Cost Allocation - The Interconnection Customer is responsible for all costs incurred by the Utility to study the proposed Interconnection and to design and construct any required Interconnection Facilities or Electric System upgrades. The Interconnection Customer is responsible for ongoing operation and maintenance costs for facilities added to the Electric System and dedicated to that Interconnection Customer's use.

- b. Study Agreement and Deposit - After the Utility and the Interconnection Customer agree on the estimated cost of the required studies and the identity of parties to perform the required studies, the Interconnection Customer and Utility will execute an agreement describing these studies and any deposit or payment to be paid to the Utility. After a study agreement is executed, the Utility will make its best effort to complete the required studies, consistent with time requirements for the studies and other service requests of a similar magnitude.
4. Denial after Additional Studies - The Utility will provide the Interconnection Customer with the results of the studies conducted under this subsection. If the studies determine that the Interconnection is not feasible, the Utility will provide notice of denial to the Interconnection Customer and the reasons for the denial.
5. Modification after Additional Studies - Based on the results of the studies, the Utility and Interconnection Customer may agree to modify the previously complete Application without penalty to the Interconnection Customer. A modified Application under this subsection shall be considered an approved final Application.
6. Approval after Additional Studies - If the studies determine that the Interconnection is feasible, the Utility will notify the Interconnection Customer and provide an executable Interconnection Agreement to the Interconnection Customer within 60 business days of such notification if no Electric System upgrades are required, or 60 business days if Electric System upgrades are required. The Utility also will 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.
7. An Interconnection Customer's failure to execute and return completed agreements, and required deposits or payments, within the time specified in this section, or by the Utility, may result in termination of the Application process by the Utility under terms and conditions stated in such agreements.
8. Other than modifications to the complete Application described in No. 5 of this subsection, changes by the Interconnection Customer to a previously approved completed Application will be considered a new Application, and shall be accompanied by a new Application fee, and may require additional studies. Denied Applications expire on the date of denial.
9. An Interconnection Customer must execute an Interconnection Agreement, and simultaneously pay any deposit or payment required by the Utility for costs to complete the Interconnection, within 60 days from the date of approval of the final Application. At the Utility's discretion, an extension may be granted in writing. If the Utility will upgrade or construct new Electric System facilities, the Interconnection Customer must meet the credit requirements of the Utility prior to the start of construction.
10. Initial Operation - An Interconnection Customer must begin operation of the Generating Facility within 2 years of the effective date of the Interconnection Agreement, or both the Application and subsequent Interconnection Agreement expire. At the Utility's discretion, an extension may be granted in writing.

Completion Process

The Interconnection process is complete, the Generating Facility can begin operation, and the Applicant becomes an Interconnection Customer, if, and only if:

1. All documentation demonstrative compliance with the technical requirements for Interconnection have been provided to the Utility;
2. Electrical Inspection of System approved by the Washington State Electrical Inspector having jurisdiction over the installation;
3. All required agreements with the Balancing Authority having jurisdiction, and all agreements covering the purchase, sale or transport of electricity and provision of any ancillary services have been completed and signed by all parties;
4. The Utility witness test is successfully completed;
5. All requirements and conditions of the Interconnection Agreement have been satisfied; and
6. The Applicant and the Utility execute an Interconnection Agreement.

Chapter 7 - General Terms, Conditions, Technical Requirements for All Interconnections

The terms and conditions, and technical requirements in this section shall apply to the Applicant and Interconnection Customer and their Generating Facility throughout the Generating Facility's installation, testing, commissioning, operation, maintenance, decommissioning, and removal. The Utility may verify compliance at any time, with reasonable notice.

Any Generating Facility proposing to be Interconnected with the Utility's Electric System or any proposed change to a Generating Facility that requires modification of an existing Interconnection Agreement must meet all applicable terms, conditions and technical requirements as set forth in the appropriate Tiers and this chapter and the regulations and standards adopted by reference in Chapter 8.

The terms, conditions, and technical requirements in this section are intended to mitigate possible adverse impacts caused by the Generating Facility on Utility equipment and personnel and on other customers of the Utility. They are not intended to address protection of the Generating Facility itself, Generating Facility personnel, or its internal load. It is the responsibility of the Generating Facility to comply with the requirements of all appropriate standards, codes, statutes and authorities to protect its own facilities, personnel, and loads.

1. The Applicant, Interconnection Customer, and Third Party Owner shall comply with and are responsible for the Generating Facility meeting the requirements in (a), (b) and (c) of this subsection. However, at its sole discretion, the Utility may approve, in writing, 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. **Codes and standards** - 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 Interconnection Customer shall be responsible for obtaining 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 comply with all applicable standards, including IEEE Standard 519 Harmonic Limits, or the more stringent harmonic requirements of the Utility.
2. Any electrical Generating Facility must comply with these rules to be eligible to Interconnect and Operate in Parallel with the Utility's Electric System. These specifications and standards shall apply to all Interconnecting Generating Facilities that are intended to Operate in Parallel with the Utility's Electric System irrespective of whether the Applicant or Third Party Owner intends to generate energy to serve all or a part of the Applicant's load; or to sell the output to the Utility or any third party purchaser.

3. In order to ensure Electric System safety and reliability of Interconnected operations, all Interconnected Generating Facilities shall be constructed, operated and maintained by the Interconnection Customer in accordance with these rules, with the Interconnection Agreement, with the applicable manufacturer's recommended maintenance schedule and operating requirements, good Utility practice, and all other applicable federal, state, and local laws and regulations. In cases where the Generating Facility is owned by a Third Party Owner, the Interconnection Customer shall provide to the Utility, the authority to cause compliance or agreement by the Third Party Owner to comply with this subsection.
4. Prior to Initial Operation, all Interconnection Customers must be inspected and approved by a Washington State Electrical Inspector and execute an appropriate Interconnection Agreement with the Utility. The Interconnection Agreement between the Utility and Interconnection Customer outlines the Interconnection standards, cost allocation and billing agreements, insurance requirements, and on-going maintenance and operation requirements.
5. Separate agreements may be required with the Utility, the Balancing Area Authority or transmission provider, or other party but not necessarily with the Utility, for power purchase, for the sale, delivery and scheduling of output from the Generating Facility, for integration or other ancillary services. All required agreements must also be executed prior to Initial Operation.
6. Applicant or Interconnection Customer shall promptly furnish the Utility 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 Utility from time to time. Interconnection Customers must certify that the facility operating as a Net Metered facility is owned by the Interconnection Customer as the Customer-Generator.
7. For the purposes of public and working personnel safety, any non-approved Generating Facility Interconnections discovered will be immediately disconnected from the Utility Electric System without any liability to the Utility. Such disconnection of non-approved Interconnection may result in disconnection of electric service to customers of the Utility other than the owner of the Generating Facility.
8. To ensure reliable service to all Utility Customers and to minimize possible problems for other customers, the Utility will review the need for upgrades to its Electric System, including a dedicated transformer. If the Utility requires upgrades, the Applicant or Interconnection Customer shall pay for all costs of those upgrades.
9. The Utility may require, and will provide the reasoning in writing, a transfer trip system or an equivalent protective function for a Generating Facility, that cannot
 - a. Detect distribution system faults (both line-to-line and line-to-ground) and clear such faults within two seconds; or
 - b. Detect the formation of an unintended island and cease to energize the Utility's distribution system within two seconds.

10. Metering

- a. **Net Metering** - For facilities as set forth in chapter 80.60 RCW, the Utility shall install, own, and maintain a kilowatt-hour meter, or meters as the Utility may determine, capable of registering the bi-directional flow of electricity at the point of common coupling at a level of accuracy that meets all applicable standards, regulations, and statutes. The meter(s) may measure such parameters as time of delivery, power factor, voltage and such other parameters as the Utility shall reasonably require. The Applicant shall provide space for metering equipment. It will be the Applicant's responsibility to provide the current transformer enclosure (if required), meter socket(s) and junction box after the Applicant has submitted drawings and equipment specifications for Utility approval. The Utility may approve other generating sources for Net Metering but is not required to do so.
 - b. **Production Metering** - The Customer may request the Utility install separate metering for production. This meter will record all generation produced separately from any Net Metering or customer usage metering. A production meter is required for all Third Party Owner systems. All costs associated with the installation of production metering will be paid by the Applicant.
11. Common labeling, at Interconnection Customer's expense, furnished or approved by the Utility and in accordance with NEC requirements must be posted on meter base, disconnects, and transformers informing working personnel that a Generating Facility is operating at or is located on the premises.
 12. No additional insurance will be necessary for a Net Metered facility owned by a Customer-Generator, that is a qualifying Generating Facility under chapter 80.60 RCW. 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 Utility.
 13. Prior to any future modification or expansion of the Generating Facility, the Interconnection Customer will obtain Utility review and approval. The Utility reserves the right to require the Interconnection Customer, at the Interconnection Customer's expense, or Third Party Owner to provide corrections or additions to existing electrical devices in the event of modification of government or industry regulations and standards, or major changes in the Utility's Electric System which impacts the Interconnection.
 14. Interconnection of Net Metering facilities shall be on a first-come, first-served basis pursuant to Chapter 80.60 RCW, Net Metering of Electricity. However, the Utility may, if indicated by engineering, safety, or reliability studies, restrict or prohibit new or expanded Interconnected Net Metered generation capacity or number of Net Metered customers on any feeder, circuit or network.
 15. Charges by the Utility to the Applicant or Interconnection Customer 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, utility testing, qualification, and studies and approval of non-UL 1741 listed equipment. The Interconnection Customer shall be responsible for any costs associated with any future upgrade or modification to the Interconnected system required by modifications in the Utility's Electric System.

16. This section does not govern the settlement, purchase, sale, or delivery of any power generated by Applicant's Generating Facility. The purchase, sale or delivery of power, including Net Metering of electricity pursuant to chapter 80.60 RCW, or rates, terms and conditions for Utility Customers purchasing power or leasing facilities from Third Party Owned Generating Facilities, and other services that the Applicant 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 Governing Board. Any such agreement shall be complete prior to Initial Operation and filed with the Utility.
17. Interconnection Customer may disconnect the Generating Facility at any time, if the Interconnection Customer provides reasonable advance notice to the Utility.
18. Interconnection Customer shall notify the Utility prior to the sale or transfer of the Generating Facility, the Interconnection facilities or the premises upon which the facilities are located. The Applicant or Interconnection Customer shall not assign its rights or obligations under any agreement entered into pursuant to these rules without the prior written consent of Utility, which consent shall not be unreasonably withheld. However, for Net Metered Generating Facilities, the facility shall not be sold to, or owned by a party, not the Utility Customer owning the premises on which the facility is located, without notification to the Utility and satisfaction of requirements in these standards for Interconnection of Generating Facilities owned by Third Party Owners.
19. All Generating Facilities must have an electrical permit and pass electrical inspection before they can be connected or Operated in Parallel with the Utility's Electric System. Applicant shall provide written certification to the Utility that the Generating Facility has been installed and inspected in compliance with the local building and/or electrical codes.
20. If the Interconnection Customer is a different entity than the owner of the real property on which the Generating Facility is located, the Interconnection Customer shall indemnify the Utility for all risks to the owner of the real property, including disconnection of service. In addition the Interconnection Customer shall obtain all legal rights and easements requested by the Utility for the Utility to access, install, own, maintain, operate or remove its equipment and the disconnect switch, if installed, on the real property where the Generating Facility is located, at no cost to the Utility.
21. If the Interconnected Generating Facility is owned by a Third Party Owner, the Third Party Owner or Interconnection Customer shall indemnify and hold harmless the Utility for all risks associated with the facility being Interconnected to the Utility's Electric System, including liability for the Utility disconnecting the facility. In addition, the Interconnection Customer executing the Interconnection Agreement for the Third Party Owned Generating Facility, shall obtain all legal rights and easements requested by the Utility for the Utility to access, install, own, maintain, operate, replace, or remove its equipment, and installing the disconnect switch, on the real property where the Generating Facility is located or on the Generating Facility itself, at no cost to the Utility.

Chapter 8 - Filings

The Utility maintains on file for inspection at its place of business, the charges, terms, and conditions for Interconnections pursuant to this chapter. Such filing includes model forms of the following documents and contracts:

1. Application.
2. Model Interconnection Agreement.

Chapter 9 - Adoption by Reference

In this chapter, the Utility adopts by reference all or portions of regulations and standards identified below or most recent version if superseded. They are available for inspection at the Utility's office or as otherwise indicated. The publications, effective date, references within this chapter, and availability of the resources are as follows:

1. The National Electrical Code is published by the National Fire Protection Association (NFPA).
 - a. The Utility adopts the version published in 2011.
 - b. The National Electrical Code is a copyrighted document.
 - c. Copies are available from the NFPA at One Batterymarch Park, Quincy, Massachusetts, 02169 or at internet address <http://www.nfpa.org>.
2. National Electric Safety Code (NESC).
 - a. The Utility adopts the version published in 2012.
 - b. Copies of the National Electric Safety Code are available from the Institute of Electrical and Electronics Engineers at <http://standards.ieee.org/nesc>.
3. Institute of Electrical and Electronics Engineers (IEEE) Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems.
 - a. The Utility adopts the most recent version adopted by IEEE 2008
 - b. Copies of IEEE Standard 1547 are available from the Institute of Electrical and Electronics Engineers at <http://www.ieee.org/web/standards/home>.
4. American National Standards Institute (ANSI) Standard C37.90, IEEE Standard for Relays and Relay Systems Associated with Electric Power Apparatus.
 - a. The Utility adopts the most recent version 2005.
 - b. Copies of IEEE Standard C37.90 are available from the Institute of Electrical and Electronics Engineers at <http://www.ieee.org/web/standards/home>.
5. Institute of Electrical and Electronics Engineers (IEEE) Standard 519, Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems.
 - a. The Utility adopts the version published in 1992 latest.
 - b. Copies of IEEE Standard 519 are available from the Institute of Electrical and Electronics Engineers at <http://www.ieee.org/web/standards/home>.

6. Underwriters Laboratories (UL), including UL Standard 1741, Inverters, Converters, and Controllers for Use in Independent Power Systems.
 - a. The Utility adopts the version published in 2005 UL Standard 1741 is available from Underwriters Laboratory at <http://www.ul.com>.
7. Occupational Safety and Health Administration (OSHA) Standard at 29 CFR 1910.269.
 - a. Copies of Title 29 Code of Federal Regulations are available from the U.S. Government Online Bookstore, <http://bookstore.gpo.gov> and from various third-party vendors.
8. Washington Division of Occupational Safety and Health (DOSH) Standard, chapter 296-155 WAC.
 - a. The DOSH Standard is available from the Washington Department of Labor and Industries at P.O. Box 44000, Olympia, WA 98504-4000, or at internet address <http://www.lni.wa.gov>.
9. American National Standards Institute (ANSI) Institute of Electrical and Electronics Engineers (IEEE) Standard C62.92, IEEE guide for the Application of neutral grounding in electrical Utility systems.
 - a. The Utility adopts the version published in 2000.
 - b. Copies of IEEE Standard C62.92 are available from the Institute of Electrical and Electronics Engineers at <http://www.ieee.org/web/standards/home>.
10. Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, IEEE Recommended Practice for Measurement and Limits of Voltage Fluctuations and Associated Light Flicker on AC Power Systems
 - a. The Utility adopts the version published in 2008.
 - b. Copies of IEEE Standard 1453 are available from the Institute of Electrical and Electronics Engineers at <http://www.ieee.org/web/standards/home>.