BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

AR 521

In the Matter of a Rulemaking to Adopt Rules Related to Small Generator)	STAFF COMMENTS
Interconnection.)	

Staff Second Set of Comments

Workshop Edits

Staff has revised the Draft Rules and associated Forms based on the input of Participants at the September 25 AR 521 Workshop. In the attached documents the modifications are indicated using strikethrough and highlights. This represents Staff's best effort to capture omissions, mistakes and revisions discussed at the workshop. Staff does not attempt to discuss all the revisions made in these brief comments. Rather Participants are encouraged to review the draft Rules and Forms and consider the changes in the context in which they were made. Included with the revised Rules and Forms is an AR 521 Rulemaking Schedule indicating activities and dates discussed at the workshop. Although comments will be received at any time during the rulemaking, participants are encouraged to make comments on the recent workshop and the current draft Rules and Forms by October 16, 2007. Any comments submitted to the OPUC filing center for Docket AR 521 will be posted and available for all participants to review.

Thanks to all the participants to the recent workshop for their suggestions and comments. This concludes Staff's second set of comments.

Respectfully submitted,

Ed Durrenberger Senior Utility Analyst Electric & Natural Gas Division Resource & Market Analysis

AR 521 OREGON SMALL GENERATOR INTERCONNECTION RULES SCHEDULE rev. 9/25

ACTIVITY	DAY	DATE
PUC Files Notice of Rulemaking with Secretary of State	Wed.	August 15, 2007
First Participant Workshop (led by Staff)	Tues.	September 25, 2007
Staff Submits Comments and First Revision to Proposed Rules	Tues.	October 2, 2007
Participants Submit Comments	Tues.	October 16, 2007
Second Participant Workshop (led by Staff)	Mon.	October 22, 2007
Staff Submits Comments and Second Revision to Proposed Rules	Tues.	October 30, 2007
Participants Submit Comments	Thurs.	November 8, 2007
Public Hearing (Main Hearing Room, 9:00 am)	Tues.	November 13, 2007
Final Comments Due	Tues.	November 27, 2007

860-082-0005

Scope and Applicability

- (1) The Oregon Small Generator Interconnection Rules set forth in OAR 860-082-0005 through 860-082-0080 (the OSGIR) regulate the interconnection of a Small Generator Facility to the Electric Transmission and Distribution (T&D) System of an Electric Distribution Company (EDC) provided that:
- (a) The Small Generation Facility has an Electric Nameplate Capacity rating equal to or less than 10 MW;
- (b) The Small Generating Facility is requesting interconnection to an EDC; and
- (c) The Small Generating Facility is not producing electricity for resale to a customer other than the interconnected EDC.
- (2) The OSGIR do not apply to Net Metering Facilities, which are addressed in Division 039.
- (3) The OSGIR do not regulate: or address:
- (a) An Electric Service Agreement for the provision of electric utility service to the Interconnection Customer by the EDC;
- (b) A Power Purchase Agreement for the purchase of power from the Interconnection Customer by the EDC; or
- (c) An Interconnection Agreement that provides for transmission or distribution service to the interconnection customer by the EDC.

Each of these issues will be addressed, if at all, through separate procedures and agreements. The Interconnection Customer is responsible for separately making all necessary arrangements and agreements with the EDC if power is to be exported past the point of interconnection.

(4) Waiver: For good cause shown, the Commission may deviate from or waive any of the provisions contained in the OSGIR and Interconnection Agreements entered into pursuant to these rules. The parties may also agree to mutually waive a section of said rules or an Interconnection Agreement entered in to pursuant to these Rules without the Commission's permission where said Rule or Agreement expressly so provides.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0010

Definitions

As used in 860-082-0010 through 860-082-0080:

- (1) "Adverse System Impact" means a negative effect that may compromise the safety and reliability of the EDC's T&D System or an Affected System.
- (2) "Affected System" means a T&D System, not owned or operated by the EDC, which may experience an Adverse System Impact from the proposed interconnection.
- (3) "Affected System Owner" means the entity that owns an Affected System.
- (4) "Applicant" means an entity, including another EDC, which has submitted an Application to an EDC to interconnect a Small Generator Facility to the EDC's T&D System.

- (5) "Application" means a request to interconnect a Small Generator Facility with an EDC's T&D System submitted on a form provided on the Commission's website as either Form 1 or Form 2, depending on the specifications of the Small Generator Facility proposed.
- (6) "Area Network" means a type of T&D System served by multiple transformers interconnected in an electrical network circuit, which is generally used in large metropolitan areas that are densely populated, in order to provide high reliability of service.
- (7) "Certificate of Completion" means a form of certificate signed by the Applicant and attesting that the Small Generator Facility is complete; meets the applicable requirements of the OSGIR; and has been inspected, tested and certified as physically ready for operation. A model form of a Certificate of Completion is provided by the Commission on its website as Form 3.
- (8) "Electric Nameplate Capacity" means the net maximum electric output capability measured in watts, kilowatts or megawatts of a Small Generator Facility as designated by the manufacturer.
- (9) "Electric Distribution Company" or "EDC" means a public utility providing electric service subject to the jurisdiction of the Public Utility Commission of Oregon.
- (10) "Electrical Service Agreement" means the agreement between an EDC and a customer providing for electricity and ancillary services according to provisions of a tariff.
- (11) "Electric Transmission and Distribution System or "T&D System" means the facilities and equipment used to transmit electricity to ultimate usage points.
- (12) "Fault Condition" means an event where one or more electrical conductors contact ground or each other, or both. Types of faults include phase to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase.
- (13) "Fault Current" means the electrical current that flows through a circuit during a fault condition.
- (14) "Field Tested Equipment" means Interconnection Equipment that is identical to equipment that was approved for interconnection under the Tier 4 study review of this procedure and has successfully completed a Witness Test within 36 months from the date of the submission of the current application. For equipment to gain Field Tested Equipment status, the Applicant must provide all the documentation of the prior Tier 4 study, review and approval, as well as any interconnection studies, and the Certificates of Completion.
- (15) "IEEE 1547" means the Standard 1547 published in 2003 by the Institute of Electrical and Electronics Engineers (IEEE) entitled "Interconnecting Distributed Resources with Electric Power Systems."
- (16) "IEEE 1547.1" means the Standard 1547.1 published in 2005 by the Institute of Electrical and Electronics Engineers (IEEE) entitled "Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems."
- (17) "Interconnection Agreement" means an agreement between the Applicant or Interconnection Customer and the EDC that authorizes the connection of the Small Generator Facility to the EDC's T&D System.
- (18) "Interconnection Customer" means an entity with one or more Small Generator Facilities interconnected to an EDC in accordance with the OSGIR.

- (19) "Interconnection Equipment" means a group of components or an integrated system provided by the Interconnection Customer to connect a Small Generator Facility to an EDC's T&D System. Such equipment includes all interface equipment including switchgear, protective devices, inverters, or other interface devices. Interconnection Equipment may be installed as part of an integrated equipment package that includes a generator or other electric source.
- (20) "Interconnection Facilities" means the facilities and equipment required by the EDC to accommodate the interconnection of a Small Generator Facility to the EDC's T&D System. Interconnection Facilities are facilities used exclusively to interconnect a specific Small Generator Facility, and do not include System Upgrades that may benefit the EDC, other customers (including other Interconnection Customers) or an Affected System Owner.
- (21) "Interconnection Facilities Study" means a detailed study conducted by the EDC or a third-party consultant to identify a list of Interconnection Facilities and System Upgrades required to address Adverse System Impacts (as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Small Generator Facility with the EDC's T&D System.
- (22) "Interconnection Facilities Study Agreement" means the form of agreement that provides a detailed scope and timeline for the Interconnection Facilities Study and a good faith, non-binding estimate of the costs to perform the study. The Interconnection Facilities Study Agreement is submitted on a form provided on the Commission's website as Form 4. (23) "Interconnection Feasibility Study" means a preliminary evaluation of the system impact and cost of interconnecting the Small Generator Facility to the EDC's T&D System. (24) "Interconnection Feasibility Study Agreement" means the form of agreement that provides a scope, timeline and a good faith, non-binding estimate of the costs for the EDC to conduct an Interconnection Feasibility Study for the Applicant. The Interconnection Feasibility Study Agreement is submitted on a form provided on the Commission's website as Form 5.
- (25) "Interconnection System Impact Study" means an engineering study performed by the EDC that evaluates the impact of the proposed interconnection on the safety and reliability of the T&D System. The study focuses on the Adverse System Impacts identified in the Interconnection Feasibility Study and potential impacts including, but not limited to, those identified in the Scoping Meeting.
- (26) "Interconnection System Impact Study Agreement" means the form of agreement that provides a statement of scope, timeline and a good faith, non-binding estimate of cost to conduct an Interconnection System Impact Study. The Interconnection System Impact Study Agreement is submitted on a form provided on the Commission's website as Form 6. (27) "Lab Tested Equipment" means the Interconnection Equipment which has been tested by the original equipment manufacturer in accordance IEEE 1547.1 and found to be in compliance with the appropriate codes and standards referenced therein and is labeled and listed by a Nationally Recognized Testing Laboratory (NRTL). For interconnection equipment to gain Lab Tested Equipment status, its use must fall within the use or uses for which the interconnection equipment is labeled and listed by the NRTL; and the generator or other electric source being utilized must be compatible with the interconnection

- equipment and consistent with the testing and listing specified for the type of interconnection equipment.
- (28) "Line Section" means that portion of an EDC's distribution system connected to an Interconnection Customer, bounded by automatic sectionalizing devices or the end of the distribution line.
- (29) "Minor Equipment Modification" as used in the context of the application process, means:
- (a) A change to the proposed Small Generator Facility, the output capacity or Interconnection Equipment;
- (A) The change does not affect the application of the screening criteria in Tiers 1, 2, or 3; and
- (B) In the EDC's reasonable opinion, the change does not have a material impact on safety or reliability of the T&D System or Affected Systems.
- (b) Minor Equipment Modification does not include a change in the Electrical Nameplate Capacity of an existing Small Generator Facility, or a change from the type of facility addressed by the OSGIR to a Net Metering Facility application or installation.

 a minor change to the proposed Small Generator Facility, the output capacity or Interconnection Equipment such that the change would not affect the application of the screening criteria in Tiers 1, 2, or 3 and, in the EDC's reasonable opinion, do not have a material impact on safety or reliability of the T&D System or Affected Systems.
- (A) Minor Equipment Modification does not include a change in the Electrical Nameplate Capacity of an existing Small Generator Facility, or a change from the type of facility addressed by the OSGIR to a Net Metering Facility application or installation.
- (30) "Nationally Recognized Testing Laboratory" or "NRTL" means a qualified private organization that performs independent safety testing and product certification. Each NRTL must meet the requirements as set forth by OSHA for a NRTL program.
- (31) "Net Metering Facility" means a Small Generator Facility as defined in ORS 757.300(1)(d).
- (32) "Parallel Operation" or "Parallel" means a Small Generator Facility is connected electrically to a T&D System and the potential exists for electricity to flow from the Small Generator Facility to the T&D System.
- (33) "Party" or "Parties" means Electric Distribution Company, Applicant, Interconnection Customer or any combination of the above.
- (34) "Pending Completed Applications" For the purposes of the Queue Position, "Pending Completed Applications" includes applications for other Small Generator Facilities, Net Metering Facilities, or FERC wholesale generators that are completed and pending.
- (35) "Point of Interconnection" means the point where the Small Generator System is electrically connected to the EDC's T&D System and has the same meaning as the IEEE 1547, Section 3.1.13 defined term "point of common coupling."
- (36) "Power Purchase Agreement" means a commercial agreement negotiated by the Small Generator Facility and the EDC for the purchase of electricity and related ancillary services.
- (37) "Primary Line" is a term that describes a distribution line with an operating voltage greater than 480 volts.

- (38) "Queue Position" means the order of a completed Application, relative to all other pending completed Applications, that is established based upon the date and time of the EDC's receipt of the completed Applications including application fees.
- (39) "Scoping Meeting" means an initial meeting between representatives of the Parties that is conducted for the purpose of discussing alternative interconnection options, to exchange information, including any T&D System data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, or to determine the potential feasible Points of Interconnection.
- (40) "Secondary Line" is a term used to describe a service line subsequent to the EDC's primary line that has an operating voltage of 480 volts or less.
- (41) "Small Generator Facility" means the equipment used by an Applicant or an Interconnection Customer to generate, or store, electricity that operates in Parallel with the T&D System. For the purposes of OAR 860-082-0015 through 860-082-0080, a Small Generator Facility has an Electric Nameplate Capacity rating of 10 MW or less and may include a PV array or a prime mover and electric generator and the Interconnection Equipment required to safely interconnect with the T&D System.
- (42) "Spot Network" is a type of T&D System that uses two or more inter-tied transformers to supply a single electrical distribution network circuit.
- (43) "System Upgrades" means the required additions and modifications to the EDC's T&D System at or beyond the Point of Interconnection or to Affected Systems. System Upgrades do not include Interconnection Facilities.
- (44) "Transmission Line" means the poles and wires used to transport electricity to an EDC's distribution system. For the purpose of the OSGIR, any line operating above 50,000 volts is considered a transmission line.
- (45) "Witness Test" means the on-site visual verification of the interconnection installation and commissioning as required in IEEE 1547 Sections 5.3 and 5.4. For interconnection equipment that has not been Lab Tested, the Witness Test may, at the discretion of the EDC, also include a system design and production evaluation according to IEEE 1547 Sections 5.1 and 5.2 as applicable to the specific interconnection system technology employed.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0015

General Interconnection Provisions

- (1) Application: Except as provided in OAR 860-039-0005 through 860-039-0080 for a Net Metering Facility, A Party wishing to interconnect, or to make a capacity change or change the status of a proposed or operating facility from a Net Metering Facility to a Small Generator Facility must submit an Application to the EDC that owns and operates the T&D System to which interconnection is sought.
- (a) The Application must be made using a standardized Application form found on the Commission's website as Form 1 or Form 2.

- (b) A Small Generator Facility that is Lab Tested, inverter-based and has an Electric Nameplate Capacity of 25 kW or less must use application Form 1 which is a Tier 1 application form. Applications for all other Small Generator Facilities up to 10 MW in size must use Form 2, which is the Tier 2, Tier 3 and Tier 4 Application Form.
- (2) Fees: A non-refundable application processing fee is required for all Applications except as excluded by OAR 860-039-0045 for Net Metering Facilities. The amount of the fee is dependent upon the review Tier requested in the application and is intended to cover reasonable costs for processing, minor study and evaluation of the application. The application fees are as follows:
- (a) Tier 1: \$100(b) Tier 2: \$500
- (c) Tier 3: \$1000
- (d) Tier 4: \$1000
- (e) Applications requiring detailed studies and engineering evaluations may incur costs that are not covered by the application fee. Before any costs above the application fee are assessed, the Applicant must authorize the EDC to continue by assuming responsibility for the additional costs, or the application will be deemed withdrawn and the original application fee forfeited.
- (f) Should an Applicant fail to receive approval at one review Tier and make a subsequent application for the same facility at a different Tier within the time frame for preserving the queue position, the original application fee and any other fees paid in conjunction with the original application will be applied to the fees for the updated application.
- (3) Interconnection Application Review Procedures: Each EDC must review all Interconnection Requests duly submitted to the EDC at their authorized mailing address based on the following review procedures:
- (a) Tier 1 Interconnection Review Procedures: An EDC must use the Tier 1 review procedures more specifically set forth in OAR 860-082-0040 for evaluation of all Applications to connect Small Generation Facilities: except as provided in OAR 860-039-0005 through 860-039-0080 for a Net Metering Facility:
- (A) The Electric Nameplate Capacity rating is 25 kW or less,
- (B) The interconnection equipment is inverter based, and
- (C) The Customer Interconnection Equipment proposed for the Small Generator Facility is Lab Tested.
- (b) Tier 2 Interconnection Review Procedures: An EDC must use the Tier 2 review procedures more specifically set forth in OAR 860-082-0045 for evaluating all Applications to connect Small Generation Facilities: except as provided in OAR 860-039-0005 through 860-039-0080 for a Net Metering Facility:
- (A) The Electric Nameplate Capacity is 2 MW or less,
- (B) The proposed connection is to a radial distribution circuit, or to a Spot Network that is limited to serving one customer,
- (C) The Customer Interconnection Equipment proposed for the Small Generator Facility is either Lab Tested Equipment or Field Tested Equipment, and
- (D) The Application does not qualify for a Tier 1 review.
- (c) Tier 3 Interconnection Review Procedures: An Applicant with a proposed project capacity of 10 MW or less that does not qualify for Tier 1 or Tier 2 review and does not

export power beyond the Point of Interconnection may request to be evaluated under Tier 3 procedures more specifically set forth in OAR 860-082-0050 except as provided in OAR 860-039-0005 through 860-039-0080 for a Net Metering Facility.

- (d) Tier 4 Interconnection Review Procedures: Except as provided in OAR 860-039-0005 through 860-039-0080 for a Net Metering Facility, an EDC must use the Tier 4 review procedures more specifically set forth in OAR 860-082-0055 for evaluating all Applications to connect Small Generation Facilities that:
- (A) Sell power to the EDC, Export power,
- (B) Have an Electric Nameplate Capacity of 10 MW or less,
- (C) Do not qualify for or have failed either the Tier 1 or Tier 2 interconnection review procedures.
- (4) **Agreement** Term: Interconnection of a Small Generator Facility, under the provisions of the OSGIR, is deemed to be in effect for a period of 20 years or the life of the Power Purchase agreement, whichever is shorter, unless terminated earlier by the default or voluntary termination by the Interconnection Customer or by action of the Commission.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0020

General Requirements

- (1) Aggregating Multiple Generators: If the Interconnection Request is for a Small Generator Facility that includes multiple Small Generator Facilities at a site for which the Applicant seeks a single Point of Interconnection, the Application must be evaluated for the purposes of the interconnection on the basis of the aggregate Electric Nameplate Capacity of the multiple Small Generator Facilities.
- (2) Capacity Change: An Interconnection Customer must submit a new Application if the Interconnection Customer proposes to increase the capacity of its existing Small Generator Facility or if the Interconnection Customer changes its Small Generator Facility equipment or operations that increase its capacity. The Application and application fees are based on the new total Electric Nameplate Capacity of the Small Generator Facility.
- (3) Point of Contact: The EDC must designate a contact person from whom information on the Application process and about the EDC's T&D System may be obtained. Such information must include studies and other materials useful to an understanding of the feasibility of interconnecting a Small Generator Facility at a particular point on the EDC's T&D System, except to the extent providing such materials would violate security requirements, confidentiality obligations or be contrary to state or federal regulations. The EDC must comply with reasonable requests for access to or copies of such studies, subject to any confidentiality agreements as may be required to protect the confidential or proprietary information interests of the EDC or third parties.
- (4) Timeframes: The EDC and Interconnection Customer must meet all time frames provided in the OSGIR, or, for Net Metering Facilities, as provided in OAR 860-039-0005 through 860-039-0080, unless the parties mutually agree to a different schedule. If a Party cannot meet a deadline provided herein, the Party must notify the other Party, explain the

reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

- (5) Modifications: Once an Application is deemed complete by the EDC and a queue position assigned, or once an Interconnection Agreement has been entered in to under provisions of the OSGIR, any modification to the Application or an existing Small Generator Facility, other than a Minor Equipment Modification requires that a new Application be submitted and a new or amended Interconnection Agreement be in place before modifications can take place.
- (6) Site Control: Documentation of site control must be available and, if the Applicant is not currently a customer of the EDC, provided with the Application. Site control may be demonstrated through ownership of, a leasehold interest in, or an option or other right to develop a site for the purpose of constructing the Small Generator Facility. Site control may be documented by a property tax bill, deed, a lease agreement or other legally binding contract.
- (7) Right of Access: The EDC must have access to the Applicant's premises for any reasonable purpose in connection with the Interconnection Application and any Interconnection Agreement pursuant to the OSGIR or if necessary to meet the legal obligation to provide service to its customers. Access must be requested at reasonable hours and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition.
- (8) Multiple Interconnections: The EDC may propose to interconnect more than one Small Generator Facility at a single Point of Interconnection in order to minimize costs, and must not unreasonably refuse a request to do so. However, an Applicant or an Interconnection Customer may elect to pay the entire cost of separate Interconnection Facilities.
- (9) Isolation Device: Small Generator Facilities must be capable of being isolated from the EDC.
- (a) For Small Generator Facilities interconnecting to a Primary Line, the isolation must be by means of a lockable, visible-break isolation device readily accessible by the EDC.
- (b) For Small Generator Facilities interconnecting to a Secondary Line, the isolation must be by means of a lockable isolation device whose status is clearly indicated and is readily accessible by the EDC. An exception is allowed for a Small Generation Facility that has a maximum total output of 30 amperes or less, is connected to a Secondary Line, utilizes Lab Tested, inverter-based Interconnection Equipment and is interconnected to the T&D System through an EDC-owned metered service. In this case, the meter base may serve as the required isolation device, provided it is readily accessible to the EDC.
- (c) All other interconnection isolation devices must be installed, owned, and maintained by the owner of the Small Generator Facility and be capable of interrupting the full load of the Small Generator Facility and must be located between the Small Generator Facility and the Point of Interconnection.
- (A) A draw-out type circuit breaker with the provision for padlocking at the draw-out position can be considered an isolation device for purposes of this requirement.
- (B) Alternatively, the Applicant or Interconnection Customer may elect to provide the EDC access to an isolation device that is contained in a building or area that may be unoccupied and locked or not otherwise readily accessible to the EDC, by providing a lockbox capable of accepting a lock provided by the EDC that will provide ready access to

the isolation device. Where a lockbox is required, the Applicant or Interconnection Customer must install the lockbox in a location that is readily accessible by the EDC. The Applicant or Interconnection Customer must affix a placard in a location acceptable to the EDC that provides clear instructions to its operating personnel on how to gain access to the isolation device.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0025

Technical Standard

- (1) The technical standard to be used in evaluating all Applications, unless otherwise provided for in the OSGIR, is IEEE 1547.
- (2) The Applicant must construct, own, operate, and maintain its Small Generator Facility in accordance with the provisions of IEEE Standard 1547 and applicable provisions of the National Electrical Code (2005 ed.), and with applicable standards required by the Commission.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0030

Cost Responsibility

- (1) Study Costs: Whenever additional studies are required under provisions of the OSGIR, the Applicant must pay the additional study costs above what is covered by the initial application fee paid by the Applicant. Estimates of the additional Study costs must be based on the scope of work determined and documented as a result of the applicable in the Feasibility, Facilities and System Impact studyies agreements conducted and the based on the estimated hours needed to complete the evaluation using an engineering cost not to exceed \$100 per hour (a factor that may be escalated annually, at the EDC's election, for inflation at the CPI index).
- (2) Minor T&D System Modifications: Modifications to the existing T&D Systems identified by the EDC under a Tier 2 or Tier 3 review; such as changing meters, fuses, or relay settings; are deemed Minor T&D Modifications. It is at the EDC's sole discretion to decide what constitutes a Minor T&D Modification. The Applicant must bare the costs of making such Minor T&D Modifications as may be necessary to gain approval of an Application.
- (3) Interconnection Facilities: The EDC must identify under the review procedures of a Tier 2 review or under a Tier 4 Facilities Study, the Interconnection Facilities necessary to safely interconnect the Small Generator Facility with the EDC. The EDC must itemize the Interconnection Facilities for the Applicant including the cost of the facilities and the time

required to build and install those facilities. The Interconnection Customer is responsible for the cost of the Interconnection Facilities.

- (4) Interconnection Equipment: The Interconnection Customer is responsible for all reasonable expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its Interconnection Equipment.
- (5) System Upgrades: The EDC must design, procure, construct, install, and own any System Upgrades. The actual cost of the System Upgrades, including overheads, is directly assigned to the Applicant. An Interconnection Customer may be entitled to financial compensation from other EDC Interconnection Customers who, in the future, benefit from the System Upgrades paid for by the Interconnection Customer. Such compensation is not governed by this rule.
- (6) Adverse System Impact: The EDC is responsible for identifying Adverse System Impacts on any Affected Systems and for determining what mitigation activities or upgrades may be required to accommodate a Small Generator Facility. The actual cost of any actions taken to address the Adverse System Impacts, including overheads, must be directly assigned to the Applicant. The Applicant may be entitled to financial compensation from other EDCs, or other Interconnection Customers who, in the future, utilize the upgrades paid for by the Applicant, only to the extent as may be provided for by the Commission.
- (7) Billings: The EDC may require a deposit of not more than 50 percent of the cost estimate, not to exceed \$1000, to be paid in advance by the Applicant for studies or Interconnection Facilities necessary to complete an Application and to interconnect to the T&D System. Progress billing, final billing and payment schedules must be agreed to by Parties prior to commencing work.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0035 Insurance -Liability

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

- (1) General liability insurance is not required for approval of an interconnection Application, or for the related Interconnection Agreement, for a Small Generator Facility with an Electric Nameplate Capacity of 200 KW or smaller., or for a Net Metering Facility as provided for in ORS 757.300(4)(c).
- (2) All other Interconnection Customers must obtain general liability insurance in an amount that is prudent and sufficient to protect other Parties. All other Interconnection Customers are required to obtain prudent amounts of general liability insurance in an amount sufficient to protect other Parties from any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of the provisions of the OSGIR or the Interconnection

Agreement. Limits of Liability: Neither Party may seek redress from the other Party in an amount greater than the amount of direct damage actually incurred

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0037

Damage Limitation

Neither Party may seek redress from the other Party in an amount greater than the amount of direct damage actually incurred.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0040

Tier 1 Interconnection:

- (1) Applicability: The EDC must use the Tier 1 review procedures for an Application that meets all of the following:
- (a) The Small Generator Facility is inverter-based;
- (b) The Small Generator Facility has an Electric Nameplate Capacity of 25 kW or less;
- (c) The Interconnection Equipment proposed for the Small Generator Facility is Lab Tested Equipment; and
- (d) The proposed Point of Interconnection is not to a Transmission Line.
- (2) Approval: For a Small Generator Facility described in section (1), the EDC must approve an Application under the requirements set forth in section (4) if all the screening criteria set forth in section (3) are met. An EDC may not impose additional requirements to a Tier 1 interconnection not specifically authorized under section (4).
- (3) Tier 1 Screening Criteria:
- (a) For interconnection of a proposed Small Generator Facility to a radial distribution circuit, the aggregated generation, which includes the proposed Small Generator Facility as well as existing Net Metering Facilities, existing FERC wholesale generators, and proposed Net Metering Facilities and FERC wholesale generators with higher Queue Positions, must not exceed 15 percent of the Line Section annual peak load as most recently measured at the sub-station or calculated for the Line Section.
- (b) For interconnection of a proposed Small Generator Facility to the load side of Spot Network protectors, the proposed Small Generator Facility and the aggregated other generation and applications with a higher Queue Position must not exceed the lesser of five percent of a Spot Network's maximum load or 50 kW.
- (c) If the proposed Small Generator Facility is to be interconnected on a single-phase shared secondary service line, the aggregate generation capacity on the shared secondary,

including the proposed Small Generator Facility and higher queued applications which includes the proposed Small Generator Facility and applications with a higher Queue Position, must not exceed 20 kW.

- (d) If the proposed Small Generator Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service line, its addition must not create a current imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer.
- (e) The proposed interconnection must use existing EDC facilities.
- (4) Tier 1 Interconnection Review Procedure:
- (a) The Applicant must submit its Application and appropriate fees to the EDC at its designated address. The appropriate application is available at the Commission web site, Form 1.
- (b) The EDC must, within 10 business days of receipt of the Application, inform the Applicant that the Application is either complete or incomplete. If the application is incomplete, the EDC must indicate what information is missing. In the event the Applicant does not receive notification within 10 business days, the Applicant may contact the EDC to determine the status of the Application. If the EDC notified the Applicant that the Application is incomplete, the Applicant must provide the required information within 10 business days (or such other time as the parties mutually agree) or the Application is deemed to be withdrawn.
- (c) If the EDC does not have a record of receipt of the Application, the Applicant must provide the EDC with an additional copy of the Application. If the Applicant can demonstrate that the original completed Application was delivered to the EDC, the EDC must forgo the initial 10 business day response period and complete its review within 15 business days.
- (d) Queuing Priority: Once the EDC deems the Application to be complete, it must assign the project a Queue Position. The Queue Position of each Application is used to determine any potential Adverse System Impacts of the proposed Small Generator Facility based on the relevant screening criteria set forth in section 860-083-0040(3). The Applicant must proceed under the timeframes of this section. The EDC must schedule a Scoping Meeting to notify the Applicant about other higher-queued Applications including, but not limited to, Net Metering Facility and FERC Interconnection Applications on the same radial line or Spot Network to which the Applicant is seeking interconnection.
- (e) If, in the process of evaluating a completed Application the interconnection request, the EDC determines that supplemental or clarifying information is required, the EDC must request the information from the Applicant. The time required for the receipt of the additional information may extend the time necessary to complete the evaluation, but only to the extent of the time required for the receipt of the additional information. The EDC may not alter the Applicant's Queue Position.
- (f) The EDC must evaluate the proposed Small Generator Facility equipment using Tier 1 screening criteria set forth in section 860-083-0040(3). No later than 15 business days from the date the Application is deemed complete; the EDC must notify the Applicant whether the Small Generator Facility meets the screening criteria.
- (g) The Applicant must provide the EDC at least 20 business days notice of the planned commissioning for the Small Generator Facility. The EDC has the option of conducting a

Witness Test at a mutually agreeable time within 10 business days of the scheduled commissioning or waiving the Witness Test and notifying the Applicant. If the EDC does not conduct the Witness Test within 10 business days of the scheduled commissioning date or within a time otherwise mutually agreed upon by the Parties, the Witness Test is deemed waived.

- (5) Interconnection of a Tier 1 Small Generation Facility: The interconnection process is not complete until:
- (a) The Application has passed the Tier 1 screening criteria;
- (b) The Small Generator Facility installation is approved by the electric code inspector with jurisdiction over the interconnection;
- (c) The Witness Test, if conducted by the EDC, is successful; and
- (d) The Parties execute a Certificate of Completion.
- (6) Witness Test Not Acceptable: If the Witness Test is conducted and is not acceptable to the EDC, the Applicant must be granted a period of 30 calendar days to resolve any deficiencies. The Parties may mutually agree to extend the time period for resolving any deficiencies. If the Applicant fails to address and resolve the deficiencies to the satisfaction of the EDC within the agreed upon time period, the Application is deemed withdrawn.
- (7) Non-approval: If the Small Generator Facility is not approved under a Tier 1 review, the Applicant may submit a new Application, including the difference in the application fee or deposit, for consideration under Tier 2, Tier 3 or Tier 4 procedures specified in OAR 860-082-0045 through 860-082-0055 without losing its original Queue Position if the new Application is submitted within 15 business days of notice that the original Application was not approved.
- (8) Operation: The Applicant must notify the EDC before commencing operation and only operate the Small Generator Facility in accordance with the executed Interconnection Agreement and the executed Power Purchase Agreement.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0045

Tier 2 Interconnection

- (1) Applicability: The EDC must use the Tier 2 review procedures for an Application that does not qualify for Tier 1 review and meets the requirements for a Tier 2 interconnection as set forth in subsections (a) through (c) below:
- (a) The Small Generator Facility has an Electric Nameplate Capacity of 2 MW or less;
- (b) The proposed Point of Interconnection is to either:
- (A) A radial distribution circuit, or
- (B) A Spot Network distribution circuit limited to serving one premise; and
- (c) The Interconnection Equipment proposed for the Small Generator Facility is either Lab Tested Equipment or Field Tested Equipment.
- (2) Approval: The EDC must approve interconnection under the Tier 2 interconnection review process set forth in section (4) of this rule if the Small Generator Facility qualifies as a Tier 2 facility as specified in section (1) and all of the Tier 2 screening criteria set forth in

section (3) are met. An EDC may not impose additional requirements not specifically authorized under section (5).

- (3) Tier 2 Screening Criteria:
- (a) For interconnection of a proposed Small Generator Facility to a radial distribution circuit, the aggregated generation, which includes the proposed Small Generator Facility as well as existing Net Metering Facilities, existing FERC wholesale generators, and proposed Net Metering Facilities and FERC wholesale generators with higher Queue Positions, on the circuit must not exceed 15 percent of the Line Section annual peak load as most recently measured at the substation or calculated for the Line Section.
- (b) For interconnection of a proposed Small Generator Facility to the load side of Spot Network protectors, the aggregated other generation which includes the proposed Small Generator Facility as well as existing Net Metering Facilities, existing FERC wholesale generators, and proposed Net Metering Facilities and FERC wholesale generators with higher Queue Positions, must not exceed the lesser of 5-five percent of a Spot Network's maximum load or 50 kW.
- (c) The proposed Small Generator Facility, in aggregation with other generation on the distribution circuit, must not contribute more than 10 ten percent to the distribution circuit's maximum Fault Current at the point on the primary voltage distribution line nearest the Point of Interconnection.
- (d) The proposed Small Generator Facility, in aggregate with other generation and existing Net Metering Facilities, existing FERC wholesale generators, and proposed Net Metering Facilities and FERC wholesale generators with a higher Queue Position, on the distribution circuit, must not cause any distribution protective devices and equipment (including, but not limited, to substation breakers, fuse cutouts, and line reclosers), or other EDC equipment on the T&D System to be exposed to Fault Currents exceeding 90 percent of the short circuit interrupting capability; and the Small Generator Facility's Point of Interconnection must not be located on a circuit that already exceeds 90 percent of the short circuit interrupting capability.
- (e) The proposed Small Generator Facility's Point of Interconnection must not be on a Transmission Line.
- (f) The Small Generator Facility, in aggregate with other generation existing Net Metering Facilities, existing FERC wholesale generators, and proposed Net Metering Facilities and FERC wholesale generators with a higher Queue Position, interconnected to the distribution side of a substation transformer feeding the circuit where the Small Generator Facility proposes to interconnect, must not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four distribution busses from the point of interconnection).
- (g) If the proposed Small Generator Facility interconnection is to a Primary Line on the distribution system, the interconnection must be according to the screening criteria set forth in paragraphs (A) and (B) of this subsection, depending on the type of electrical service provided by the EDC.
- (A) If the Small Generator Facility is 3-phase or single-phase and is to be connected to a 3-phase 3 wire Primary Line, it must be connected phase-to-phase.
- (B) If the Small Generator Facility is 3-phase or single-phase and is to be connected to a 3-phase 4-wire Primary Line, must be connected line to neutral and effectively grounded.

- (h) If the Small Generator Facility is to be interconnected on single-phase shared service line on the T&D System, the aggregate generation capacity on the shared secondary line, including the proposed Small Generator Facility, must not exceed 20 kW.
- (i) If the proposed Small Generator Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service line, its addition must not create an imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer.
- (j) Except as provided in subsection (4)(f), the interconnection must only use existing EDC facilities and the Applicant's proposed facilities.
- (k) The Small Generator Facility, in aggregate with existing Net Metering Facilities, existing FERC wholesale generators, and proposed Net Metering Facilities and FERC wholesale generators with a higher Queue Position, and exiting transmission loads must not cause a transmission system circuit to exceed its design capacity on the transmission system circuit directly connected to the distribution circuit where the interconnection is proposed.
- (4) Tier 2 Interconnection Review Procedure:
- (a) The Applicant must submit its Application and appropriate fees to the EDC at its designated address. The Application form is available on the Commission web site as Form 2.
- (b) The EDC must, within 10 business days of receipt of the Application, inform the Applicant that the Application is either complete or incomplete. If the application is incomplete, the EDC must indicate what information is missing. In the event the Applicant does not receive notification within 10 business days, the Applicant may contact the EDC to determine the status of the Application.
- (c) If the EDC does not have a record of receipt of the Application, the Applicant must provide the EDC with an additional copy of the Application. If the Applicant can demonstrate that the original completed Application was delivered to the EDC, the EDC must forgo the initial 10 business day response period and complete its review within 20 business days of its receipt.
- (d) Queuing Priority: Once the EDC deems the Application to be complete, it must assign the project a Queue Position. The Queue Position of each Application is used to determine any potential Adverse System Impacts of the proposed Small Generator Facility based on the relevant screening criteria summarized in section (3) of 860-082-0045 this rule. The Applicant must proceed under the timeframes of this section. The EDC must schedule a Scoping Meeting to notify the Applicant about other higher-queued Applications including, but not limited to, Net Metering Facility Applications and FERC Interconnection Applications on the same radial line or Spot Network to which the Applicant is seeking to interconnect.
- (e) Initial Review: Within 20 business days after the EDC notifies the Applicant that it has received a completed Interconnection Request, or within a time period mutually agreed to by Parties, the EDC must:
- (A) Evaluate the Application using the Tier 2 screening criteria set forth in 860-082-0045 (3) of this rule,
- (B) Review any independent analysis that may be provided by the Applicant using the same criteria, and

- (C) Provide the Applicant the results of its review, including a comparison of these results and the independent analysis provided by the Applicant (if applicable).
- (f) If in the process of evaluating the **completed Application** interconnection request, the EDC determines that supplemental or clarifying information is required, the EDC must request the information from the Applicant. The time required for the receipt of the additional information may extend the time necessary to complete the review, but only to the extent of the time required for the receipt of the additional information. The EDC may not alter the Applicant's Queue Position.
- (g) If the Small Generator Facility fails to meet one or more of the Tier 2 screening criteria, but the EDC determines that the Small Generator Facility could be interconnected safely if minor T&D modifications to the T&D system (for example, changing meters, fuses, or relay settings) were made; it must offer the Applicant a non-binding, good faith estimate of the costs of such proposed minor modifications and proceed with the minor modifications if authorized by the Applicant.
- (h) The EDC must approve the application if
- (A) The EDC determines that the Application passes the Tier 2 screening criteria, or
- (B) The Application fails one or more of the Tier 2 screening criteria but the EDC determines that the Small Generator Facility can be interconnected safely and reliably after making the modifications described in subsection (g), and the EDC has received authorization from the Applicant to implement the minor modifications.
- (i) The Applicant must provide the EDC at least 20 business days notice of the planned commissioning for the Small Generator Facility. The EDC has the option of conducting a Witness Test at a mutually agreeable time within 10 business days of the scheduled commissioning. If the EDC does not conduct the Witness Test within 10 business days of the scheduled commissioning date, or within the time otherwise mutually agreed upon by the parties, the Witness Test is deemed waived.
- (5) Interconnection of a Tier 2 Small Generator Facility: The interconnection is not complete until:
- (a) All Tier 2 screening criteria are satisfied and any minor T&D modifications to the T&D System that were identified, if any, are implemented;
- (b) The Small Generator Facility installation is approved by electric code inspector with jurisdiction over the interconnection;
- (c) The Witness Test, if conducted by the EDC, is successful; and
- (d) The Parties execute a Certificate of Completion.
- (6) Witness Test Not Acceptable: If the Witness Test is conducted and is not acceptable to the EDC, the Applicant must be allowed a period of 30 calendar days to resolve any deficiencies. The Parties may mutually agree to extend the time period for resolving any deficiencies. If the Applicant fails to resolve the deficiencies to the satisfaction of the EDC within the agreed upon time period, the Application is deemed withdrawn.
- (7) Non-approval: If the Small Generator Facility is not approved under a Tier 2 review, the Applicant may submit a new Application including the difference in the application fee or deposit, for consideration under Tier 3 or Tier 4 procedures specified in OARs 860-082-0050 and 860-082-0055 without losing its original Queue Position provided the new Application is submitted within 15 business days of notice that the Application was not approved.

(8) Operation: The Applicant must notify the EDC before commencing operation and only operate the Small Generator Facility in accordance with the executed Interconnection Agreement and the executed Power Purchase Agreement.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0050

Tier 3 Interconnection

- (1) Applicability: The EDC must use the Tier 3 interconnection review procedures for an Application that does not qualify for Tier 1 or Tier 2 review and meets all the requirements set forth in subsections (a) through (c) below:
- (a) The Small Generator Facility has an Electric Nameplate Capacity rating of 10 MW or less; and
- (b) The proposed Point of Interconnection is not to a Transmission Line; and
- (c) The Small Generator Facility does not export power beyond the point of interconnection and utilizes reverse power relays or other protection functions that prevent power flow onto the Area Network;
- (2) Approval: A Tier 3 Small Generator Facility, as defined in section (1) of this rule, meeting the screening criteria set forth in sections (3) and (4) below must be further evaluated using Tier 2 Screening Criteria set forth in OAR 860-082-0045(3). Once the Tier 2 Screening Criteria are met, the Application must be reviewed using the procedure set forth in section (5) of this rule. Tier 3 interconnections do not require an Interconnection Feasibility Study; however, the EDC may choose to conduct such a study at its own expense, and it must complete the Interconnection Feasibility Study within 25 calendar days.
- (3) Screening Criteria- Area Networks: For a Small Generator Facility to interconnect to the load side of an Area Network distribution circuit, the criteria set forth in subsections (a) through (e) below must be met:
- (a) The Electric Nameplate Capacity of the Small Generator Facility is 50 kW or less;
- (b) The proposed Small Generator Facility utilizes a Lab Tested, inverter-based equipment package for interconnection;
- (c) The Small Generator Facility utilizes reverse power relays or other protection functions that prevent power flow on to the Area Network;
- (d) The aggregated other generation on the Area Network, including existing Net Metering Facilities, existing FERC wholesale generators, and proposed Net Metering Facilities and FERC wholesale generators with a higher Queue Position, does not exceed the lesser of 5 percent of an Area Network's maximum load or 50 kW; and
- (e) The interconnection must use only existing EDC facilities and the Applicant's proposed facilities.
- (4) Alternative Screening Criteria -- Not Networked: For a Small Generator Facility to interconnect to a distribution circuit that is not networked, the criteria set forth in subsections (a) through (f) below must be met:.
- (a) The Small Generator Facility has an Electric Nameplate Capacity of 10 MW or less;

- (b) The aggregated total of the Electric Nameplate Capacity of all of the generators on the circuit including existing Net Metering Facilities, existing FERC wholesale generators, and proposed Net Metering Facilities and FERC wholesale generators with a higher Queue Position, and the proposed Small Generator Facility, is 10 MW or less;
- (c) The Small Generator Facility does not export power beyond the point of interconnection and employs reverse power relays or other protection functions that prevent power flow onto the T&D System;
- (d) The Small Generator Facility's proposed interconnection must be to a radial distribution circuit;
- (e) The Small Generator Facility is not served by a shared transformer; and
- (f) Except as allowed in subsection (5)(f) of 860-082-0050 this rule, the interconnection must use only existing EDC facilities and the Applicant's proposed facilities.
- (5) Tier 3 Interconnection Review Procedure:
- (a) The Applicant must submit its Application and appropriate fees to the EDC at its designated address. The Application form is available on the Commission web site as Form 2.
- (b) The EDC must, within 10 Business Days of receipt of the Application, inform the Applicant that the Application is either complete or incomplete. If the Application is incomplete, the EDC must indicate what information is missing. In the event the Applicant does not receive notification within 10 business days, the Applicant may contact the EDC to determine the status of the Application.
- (c) If the EDC does not have a record of receipt of the Application, the Applicant must provide the EDC with an additional copy of the Application. If the Applicant can demonstrate that the original completed Application was delivered to the EDC, the EDC must forgo the initial 10 business day response period; and complete its review within 20 business days of its receipt.
- (d) Queuing Priority: Once the EDC deems the Application to be complete, it must assign the project a Queue Position. The Queue Position of each Application is used to determine any potential Adverse System Impacts of the proposed Small Generator Facility based on the relevant screening criteria summarized in sections (3) and (4) of 860-082-0050 this rule. The Applicant must proceed under the timeframes of this section. The EDC must schedule a Scoping Meeting to notify the Applicant about other higher-queued Applications including, but not limited to, Net Metering Facility Applications and FERC Interconnection Applications on the same radial line or Area Network to which the Applicant is seeking to interconnect.
- (e) Initial Review: Within 20 business days after the EDC notifies the Applicant that it has received a completed Interconnection Request or within a time period mutually agreed to by Parties, the EDC must:
- (A) Evaluate the Application using the Tier 3 screening criteria set forth in sections (3) and (4) of 860-082-0050this rule; and
- (B) Review any independent analysis that may be provided by the Applicant using the same criteria, and
- (C) Provide the Applicant the results of its review, including a comparison of these results and the independent analysis provided by the Applicant (if applicable).

- (f) If in the process of evaluating the interconnection request, the EDC determines that supplemental or clarifying information is required, the EDC must request the information from the Applicant. The time required for the receipt of the additional information may extend the time necessary to complete the review, but only to the extent of the time required for the receipt of the additional information. The EDC may not alter the Applicant's Queue Position.
- (g) If the Small Generator Facility fails to meet one or more of the Tier 3 screening criteria, but the EDC determines that the Small Generator Facility could likely be interconnected safely if minor modifications to the T&D system (for example, changing meters, fuses, or relay settings) were made, it must offer the Applicant a non-binding, good faith estimate of the costs of such proposed minor modifications and proceed with the minor modifications if authorized by the Applicant.
- (h) The EDC must approve the Application if the EDC determines that the Application:
- (A) Passes the Tier 3 screening criteria in 860-082-0050 (3) or (4) of this rule; or
- (B) Fails one or more of the Tier 3 screening criteria, or does not meet every approval requirement in section (2), but the EDC determines that the Small Generator Facility can be interconnected safely and reliably after making the modifications described in subsection (g) above, and the EDC has received authorization from the Applicant to implement the minor modifications.
- (i) The Applicant must provide the EDC at least 20 business days notice of the planned commissioning for the Small Generator Facility. The EDC has the option of conducting a Witness Test at a mutually agreeable time within 10 business days of the scheduled commissioning. If the EDC does not conduct the Witness Test within 10 business days of the scheduled commissioning date, or within the time otherwise mutually agreed upon by the parties, the Witness Test is deemed waived.
- (j) Non-approval:
- (A) If the Small Generator Facility fails to pass the screening criteria set forth in sections (3) or (4), or is not approved under a Tier 3 review; then the EDC must provide, at the
- request of the Applicant, a written justification for denying the Application.
- (B) If the Small Generator Facility is not approved under a Tier 3 review, the Applicant may submit a new Application including the difference in the application fee or deposit, for consideration under Tier 4 review procedures specified in OAR 860-050-0055 without losing its original Queue Position provided the new Application is submitted within 15 business days of notice that the Application was not approved. Any previous application fee or deposit must be applied toward the Tier 4 application fee.
- (6) Interconnection of a Tier 3 Small Generator Facility: The interconnection review process is not complete until:
- (a) All <u>Tier 3</u> screening criteria are satisfied and any minor modifications to the T&D System that may have been identified are implemented;
- (b) The Small Generator Facility installation is approved by electric code inspector with jurisdiction over the interconnection;
- (c) There is a successful completion of the Witness Test, if required; and
- (d) The Parties execute a Certificate of Completion.
- (7) Witness Test Not Acceptable: If the Witness Test is conducted and is not acceptable to the EDC, the Applicant must be allowed a period of 30 calendar days to resolve any

deficiencies. The Parties may mutually agree to extend the time period for resolving any deficiencies. If the Applicant fails to resolve the deficiencies to the satisfaction of the EDC within the agreed upon time period, the Application is deemed withdrawn.

(8) Operation: The Applicant must notify the EDC prior to commencing operation and must operate the Small Generator Facility in accordance with the executed Interconnection Agreement.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

OAR 860-082-0055

Tier 4 Interconnection

- (1) Applicability: The EDC must use the Tier 4 interconnection review procedures for an Application that does not qualify for Tier 1, Tier 2, or Tier 3 review and for which the Small Generator Facility has an Electric Nameplate Capacity that is 10 MW or less.
- (2) Approval: The EDC must approve interconnection under the Tier 4 interconnection review procedure set forth in section (3) and studies set forth in sections (4) through (6) of this rule. The EDC may not impose requirements in addition to those set forth in the OSGIR.
- (3) Tier 4 Interconnection Review Procedure:
- (a) The Applicant must submit its Application and appropriate fees to the EDC at its designated address. The Application form is available on the Commission web site as Form 2.
- (b) The EDC must, within 10 business days of receipt of the Application, inform the Applicant that the Application is either complete or incomplete. If the application is incomplete, the EDC must indicate what information is missing. In the event the Applicant does not receive notification within 10 business days, the Applicant may contact the EDC to determine the status of the Application.
- (c) If the EDC does not have a record of receipt of the Application, the Applicant must provide the EDC with an additional copy of the Application. If the Applicant can demonstrate that the original completed Application was delivered to the EDC, the EDC must forgo the initial 10 business day response period and complete its review within 20 business days of its receipt.
- (d) Queuing Priority: Once the EDC deems the Application to be complete, it must assign the project a Queue Position unless a queue position was already assigned under a previous lower-Tier Application that was not approved. The Queue Position of each Application is used to determine any potential Adverse System Impacts of the proposed Small Generator Facility based on the relevant data contained in the Application, the outcomes of the various studies and the Applicant's desired interconnection location. The Applicant must proceed under the timeframes of this section. The EDC must schedule a Scoping Meeting to notify the Applicant about other higher-queued Applications including, but not limited to, Net Metering Facility Applications and FERC Interconnection Applications on the same radial line or Area Network to which the Applicant is seeking to interconnect.

- (e) If in the process of evaluating the **completed Application interconnection request**, the EDC determines that supplemental or clarifying information is required, the EDC must request the information. The time required for the receipt of the additional information may extend the time before the Scoping Meeting can be convened but only to the extent of the time required for the receipt of the additional information. The EDC may not alter the Applicant's Queue Position. Supplemental or clarifying information can be provided in the scoping meeting.
- (f) Studies: By mutual agreement of the Parties, the Scoping Meeting, Interconnection Feasibility Study, Interconnection Impact Study, or Interconnection Facilities Studies (or any combination thereof) as set forth in these Tier 4 procedures may be waived.
- (g) Scoping Meeting: A Scoping Meeting must be held within 10 business days, or as agreed upon by the Parties, after the EDC has notified the Applicant that the Application is deemed complete. The purpose of the meeting is to review the Application including any existing studies relevant to the Application, (such as the results from the Tier 1, Tier 2 or Tier 3 screening criteria and studies or, if available, the Applicant's analysis of the proposed interconnection using the same criteria as the EDC applies to the Application). Parties are expected to bring to the Scoping Meeting such personnel, including system engineers and other resources, as may be reasonably required to accomplish the purpose of the meeting. Some Scoping Meeting outcomes may include:
- (A) An identification of the need for further studies as described in sections (4), (5) and (6) of 860-082-0055-this rule;
- (B) Possible changes or modifications to the Application to facilitate the interconnection or reduce costs; or
- (C) No changes at all and the EDC being able to proceed with the application without further studies.
- In any case, where changes result from the scoping meeting, the Applicant maintains the assigned queue position so long as the additions or changes to the Application can be rectified within a 10 business day window, or a period mutually agreed upon by parties, from the date of notification.
- (h) If the Parties agree at the Scoping Meeting that an Interconnection Feasibility Study needs to be performed, the EDC has up to 15 business days to complete an Interconnection Feasibility Study Agreement that provides the Applicant with an outline of the scope and a good faith, non-binding estimate of the cost to perform the study. A model form of an Interconnection Feasibility Study Agreement is provided on the Commission's website.
- (4) Interconnection Feasibility Study:
- (a) If the Applicant agrees to the cost estimate, the EDC must perform an Interconnection Feasibility Study. The study must evaluate the effects of the proposed Small Generator Facility on the existing EDC's T&D System and look for possible Adverse System Impacts. Some Feasibility Study outcomes may include:
- (A) Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- (B) Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
- (C) Initial review of grounding requirements and system protection; and

- (D) Description and estimated cost of Interconnection Facilities and System Upgrades required to interconnect the Small Generator Facility to the EDC in a safe and reliable manner.
- (b) If the Applicant asks that the Interconnection Feasibility Study evaluate multiple potential points of interconnection, the EDC will perform the additional evaluations at the Applicant's expense.
- (c) If the Interconnection Feasibility Study identifies possible Adverse System Impacts from the Small Generator Facility, an Interconnection System Impact Study is required. The EDC has up to 15 business days to complete an Interconnection System Impact Study Agreement that provides the Applicant with an outline of the scope and a good faith, non-binding estimate of the cost to perform the study. A model form of an Interconnection System Impact Study Agreement is provided on the Commission's website.
- (5) Interconnection System Impact Study:
- (a) If the Applicant agrees to the cost estimate, the EDC must conduct an Interconnection System Impact Study. The study must evaluate the Adverse System Impacts identified in the Interconnection Feasibility Study, and study other potential impacts including, but not limited to, those identified in the Scoping Meeting.
- (b) The study must consider all generating facilities that, on the date the Interconnection System Impact Study is commenced:
- (A) Are directly interconnected with the EDC's system;
- (B) Have a pending higher Queue Position to interconnect to the system; or;
- (C) Have a signed Interconnection Agreement.
- (c) The study must include, among other things:
- (A) A short circuit analysis,
- (B) A stability analysis,
- (C) A power flow analysis,
- (D) Voltage drop and flicker studies,
- (E) Protection and set point coordination studies, and
- (F) Grounding reviews.
- (d) The Interconnection System Impact Study must:
- (A) State the underlying assumptions of the study,
- (B) Show the results of the analyses, and
- (C) List any potential impediments to providing the requested interconnection service.
- (e) If the Applicant sponsored a separate independent impact study, the EDC must also evaluate and address any alternative findings from that study.
- (f) The outcome of the System Impact Study must include a report of any Interconnection Facilities and System Upgrades to the EDC's T&D system and any System Upgrades to Affected Systems required to allow the proposed interconnection to occur including an estimate of the equipment costs and standard delivery schedules.
- (g) If Interconnection Facilities are found to be necessary in the System Impact Study, the EDC must determine the price and delivery of the facilities. The EDC has up to 15 business days after completion of the Interconnection System Impact Study, or a period mutually agreed upon by parties, to develop an Interconnection Facilities Study Agreement that provides the Applicant with the scope and a good faith, non-binding estimate of the cost to

perform the study. A model form of an Interconnection Facilities Study Agreement is provided on the Commission's website.

- (6) Interconnection Facilities Study:
- (a) If the Applicant agrees to the cost estimate, an Interconnection Facilities Study must be performed by the EDC to evaluate the cost of equipment, and the engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Interconnection Feasibility Study and Interconnection System Impact Study for interconnection of the proposed Small Generator Facility. The Interconnection Facilities Study must also identify:
- (A) The electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment;
- (B) The nature and estimated cost of the EDC's Interconnection Facilities;
- (C) System Upgrades required at the EDC and on Affected System that are necessary to accomplish the interconnection; and
- (D) A detailed estimate of the time required to procure materials and equipment and complete the construction and installation of such facilities.
- (b) Parties may agree to permit the Interconnection Customer to separately arrange for a third party to design and estimate the construction costs for the required Interconnection Facilities. In such a case, the EDC must review the design and cost estimates of the facilities, under the provisions of the Interconnection Facilities Study Agreement. If the Parties agree to separately arrange for design and construction estimates, and comply with any security and confidentiality requirements, the EDC must make all relevant information and required specifications available to the Applicant at no cost in order to permit the Applicant to obtain an independent design and cost estimate for the facilities, to be built in accordance with such specifications.
- (7) Approval: Upon completion of the Interconnection Facilities Study, and with the agreement of Applicant to pay for necessary Interconnection Facilities and System Upgrades identified in the Interconnection Facilities Study as approved by the EDC, and provided the EDC determines, based in the studies in 860-082-0055 (4) through (6) of this rule, that safety and reliability will not be compromised from interconnecting the Small Generator Facility, the EDC must approve the application
- (a) The interconnection customer must provide the EDC at least 20 days notice of the planned commissioning for the small generator facility.
- (b) The EDC has the option of conducting a witness test at a mutually agreeable time within 10 business days of the scheduled commissioning or waiving the test and notifying the Applicant. If the EDC does not conduct the witness test within the 10 business days or within the time otherwise mutually agreed upon by the parties, or if the EDC notifies the Applicant of its intent not to perform the test, the witness test is deemed waived.
- (8) Non-Approval: If the Application is denied, the EDC must provide a written explanation explaining why the Application was denied.
- (9) Interconnection of the Small Generator Facility: The Interconnection is not final until:
- (a) Any facilities and upgrades agreed upon in sections (3) through (6) are satisfied;
- (b) The Small Generator Facility installation is inspected and approved by the electric code inspector with jurisdiction over the interconnection;
- (c) The Parties execute a Certificate of Completion; and

- (d) There is a successful completion of the Witness Test, if conducted by the EDC.
- (10) Witness Test Not Acceptable: If the Witness Test is conducted and is not acceptable to the EDC, the Applicant must be allowed a period of 30 calendar days to resolve any deficiencies. The Parties may mutually agree to extend the time period for resolving any deficiencies. If the Applicant fails to resolve the deficiencies to the satisfaction of the EDC within the agreed upon time period, the Application is deemed withdrawn. The Applicant has the right to submit a new Interconnection Request for consideration at a later time but relinquishes the current Small Generation Facility's position in the queue.
- (11) Operation: The Applicant must notify the EDC prior to commencing operation and must operate the Small Generator Facility in accordance with the executed Interconnection Agreement and the executed Power Purchase Agreement.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0060

Recordkeeping and Reporting Requirements

- (1) The EDC must maintain, for a period of not less than two years, a record of all Applications received, the time required to complete its review of each Application, and reasons for the actions taken on the Applications.
- (2) The EDC must maintain, for as long as the interconnection is in place, a record of all Interconnection Agreements completed and including the related "As Built" Form 7 that records equipment specifications and initial settings. The utility must provide a copy of these records to the Applicant or Interconnection Customer within 15 business days upon receipt of a written request.
- (3) The EDC must prepare and submit to the Commission, an annual report summarizing the EDC's interconnection activities including, but not necessarily limited to, the following information:
- (a) For all Tiers of Interconnection Applications:
- (A) The number Interconnection Applications made,
- (B) The number of interconnections established,
- (C) The individual types of generators applying for interconnection and their capacity,
- (D) Interconnection Application location by Zip code, and
- (E) A report of any disputes and their resolution.
- (b) For Tier 2 through Tier 4 Interconnection Applications:
- (A) Estimated facilities costs from studies,
- (B) Whether telemetry is required and if so, its basic configuration, and
- (C) System upgrades required and their estimated costs.
- (c) For all applications that led to successful interconnections:
- (A) Whether or not timelines were met and if not an explanation of why they were not met, and
- (B) A record of any item(s) that Parties mutually agreed to waive.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0065

Metering and Monitoring

- (l) Metering: The Interconnection Customer is responsible for the cost of the purchase, installation, operation, maintenance, testing, repair, and replacement of any special metering and data acquisition equipment deemed necessary by the terms of the (separate) Power Purchase Agreement except as provided in OAR 860-039-0005 through 860-039-0080 for a Net Metering Facility. The EDC must install, maintain and operate the metering equipment. Parties must be granted unrestricted access to such equipment as may be necessary for the purposes of conducting routine business.
- (2) Monitoring: Small Generator Facilities approved and interconnected to the EDC under a Tier 1, Tier 2 or Tier 3 Interconnection Application, and under a Tier 4 Interconnection Application, up to an Electric Nameplate Capacity rating of 3 MW, except as noted herein, are not required to provide for remote monitoring of the electric output by the EDC. Tier 4 Interconnection Applications with Electric Nameplate Capacities greater than 3 MW or Tier 3 Interconnection Applications where the aggregated generation on the circuit, including the Applicant's Small Generator Facility, would exceed 50 percent of the line section annual peak load may be required to provide remote monitoring at the EDC's discretion. For Small Generator Facilities required to provide remote monitoring pursuant to provisions this subsection, the data acquisition and transmission to a point where it can be used by the EDC's control system operations must meet the performance based standards described in section (3) of 860-082-0065 this rule. Any data acquisition and telemetry equipment required by this rule must be installed, operated and maintained at the Interconnection Customer's expense.
- (3) Telemetry is the remote communication from a Small Generator Facility to a point on the EDC's communication network where the data can be assimilated into the EDC's grid operations if desired.
- (a) Parties may mutually agree to waive or modify any of the telemetry requirements contained in section (3) of this rule.
- (b) The communication must take place via a Private Network Link using a Frame Relay or Fractional T-1 line or other such suitable device. Dedicated Remote Terminal Units, from the Interconnected Small Generator Facility to an EDC's substation and Energy Management System are not required.
- (c) A single communication circuit from the Small Generator Facility to the EDC is sufficient.
- (d) Communications protocol must be DNP 3.0 or other standard used by the EDC.
- (e) The Small Generator Facility must be capable of sending telemetric monitoring data to the EDC at a minimum rate of every 2 seconds (from the output of the Small Generator Facility's telemetry equipment to the EDC's Energy Management System).
- (f) The minimum data points that a Small Generator Facility is required to provide telemetric monitoring to the EDC on are:
- (A) Net real power flowing out or into the Small Generator Facility (analog);
- (B) Net reactive power flowing out or into the Small Generator Facility (analog);

- (C) Bus bar voltage at the point of common coupling (analog);
- (D) Data Processing Gateway (DPG) Heartbeat (used to certify the telemetric signal quality); and
- (E) On-line or off-line status (digital).
- (g) If an Interconnection Customer operates the equipment associated with the high voltage switchyard interconnecting the Small Generator Facility to the T&D System, and is required by this rule to provide monitoring and telemetry, the Interconnection Customer must provide the following monitoring to the EDC in addition to provisions in subsection (e) above:
- (A) Switchyard Line and Transformer MW and MVAR values;
- (B) Switchyard Bus Voltage; and
- (C) Switching Devices Status

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0070

Temporary Disconnection

The EDC or Interconnection Customer may temporarily disconnect the Small Generator Facility from its T&D System at any time and for as long as reasonably necessary in the event one or more of the following conditions or events occurs:

- (1) Under emergency conditions, the EDC or the Interconnection Customer may immediately suspend interconnection service and temporarily disconnect the Small Generator Facility.
- (a) The EDC must notify the Interconnection Customer promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the Small Generator Facility operation. The Interconnection Customer must notify the EDC promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the EDC's T&D System.
- (b) To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.
- (2) Parties must make reasonable efforts to provide 5 business days notice prior to interruption caused by routine maintenance or construction and repair to the Small Generator Facility or EDC's T&D system and must use reasonable efforts to coordinate such interruption.
- (3) In the case forced outages of the T&D System, the EDC must use reasonable efforts to provide the Interconnection Customer with prior notice of forced outages to effect immediate repairs to the T&D System. If prior notice is not given, the EDC must, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.
- (4) If the EDC determines that operation of the Small Generator Facility will likely cause disruption or deterioration of service to other customers served from the same electric

system, or if operating the Small Generator Facility could cause damage to the EDC's T&D System then the EDC may disconnect the Small Generator Facility under the procedures of this section.

- (a) The EDC must provide the Interconnection Customer supporting documentation used to reach the decision to disconnect upon request.
- (b) The EDC may disconnect the Small Generator Facility if, after receipt of the notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, no less than 5 business days from the date the Interconnection Customer receives the EDC's written notice supporting the decision to disconnect, unless emergency conditions exist, in which case the Temporary Disconnection provisions of Interconnection Agreement apply.
- (5) If the Interconnection Customer makes any change other than Minor Equipment Modifications without prior written authorization of the EDC, the EDC has the right to temporarily disconnect the Small Generator Facility.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0075

Termination and Default

- (1) No termination is effective until the Parties have executed provisions of this section applicable to such termination.
- (a) The Interconnection Customer may terminate the Agreement at any time by giving the EDC 20 business days' written notice.
- (b) Either Party may terminate the Interconnection Agreement after default pursuant to section (2) of this rule.
- (c) The Commission may terminate the Interconnection Agreement.
- (d) Upon termination of the Interconnection Agreement, any Small Generator Facility Interconnection Equipment must be disconnected from the EDC's T&D System at the Interconnection Customer's expense. The termination of the Interconnection Agreement does not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.
- (2) Default: Failure of a Party or Parties to meet the obligations of the OSGIR may constitute Default. Upon a default, the non-defaulting Party must give written notice of such default to the defaulting Party. The defaulting Party has 60 calendar days from receipt of the default notice within which to cure such default. If a default is not capable of being cured within 60 calendar days, the non-defaulting Party has the right to terminate the Interconnection Agreement by written notice.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

860-082-0080

Dispute Resolution

Except as provided in 860-082-0080 (4) of this rule, nothing in this rule restricts the rights of any Party to file a complaint with the Commission under ORS Chapter 756. Pursuit of the dispute resolution process under this subsection does not affect an Applicant with regard to consideration of an Interconnection Request or its queue position.

- (1) Before filing a complaint with the Commission or using the alternative dispute resolution mechanism set forth in section (4), the EDC, Applicant or Interconnection Customer must first provide the other Party with a written Notice of Dispute (Notice). Such Notice must describe in detail the nature of the dispute and a proposed resolution.
- (2) The Party receiving a Notice under this section must refer it to a designated senior representative for resolution on an informal basis as promptly as practicable. In the event the Parties are unable to resolve the dispute within 30 calendar days (or such other period as the Parties may agree upon by mutual agreement), either Party may submit it to the Commission pursuant to ORS Chapter 756 or, if the Parties mutually agree, for alternative dispute resolution as set forth in section (4). Parties may not informally resolve a dispute that requires Commission approval as set forth in OAR 860-082-0005(3)(the Waiver Provision).
- (3) For complaints filed with the Commission under ORS Chapter 756 or under the alternative dispute resolution process described in section (4), the following "Good Utility Practice" standard must be used:
- (a) "Good Utility Practice" is any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition.
- (b) Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods or acts generally accepted in the region.
- (4) The EDC, the Interconnection Customer or Applicant may use the following alternative dispute resolution process only if both Parties to the dispute mutually agree in writing and both Parties accept all aspects of the alternative procedures set forth in this section. Once both Parties agree in writing to use this alternative dispute resolution process, it may only be terminated by mutual written agreement of the Parties.
- (a) Procedures: Proceedings initiated under this alternate dispute resolution provision are conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within 10 days of the referral of the dispute to arbitration, each Party must choose one arbitrator to sit on a three-member arbitration panel. The two arbitrators so chosen must, within 20 days, select a third arbitrator to chair the arbitration panel. In either case, the arbitrators must be knowledgeable in electric utility matters, including electrical T&D Systems and interconnection equipment and facilities, and must not have any current or past substantial business or financial relationships with any Party to the arbitration (except prior arbitration). The arbitrator(s) must provide each of the

Parties an opportunity to be heard and conduct the arbitration in accordance with applicable arbitration rules and Commission regulations.

- (b) Arbitration Decision: Unless the parties otherwise mutually agree, the arbitrator(s) must render a decision within 90 days of appointment and must notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) are authorized only to interpret and apply the provisions the OSGIR and any Interconnection Agreement (if applicable) entered in to under these rules, and the arbitrators do not have power to modify or change any of the above in any manner. Except as provided in subsections (c) and (d) of this section, the decision of the arbitrator(s) is final and binding on the Parties. (c) The EDC must file, without further comment, the arbitrator's final decision with the Commission within 5 business days of its issuance. The Commission must approve or reject the final decision within 60 days of its filing, with written findings as to any deficiencies. The Commission's review of the arbitrator's final decision is limited solely to ensure: (A) It does not unfairly or unjustly discriminate against a person who is not a party to the
- alternative dispute resolution process;
 (B) It is consistent with the public interest, convenience and necessity, and
- (C) It does not unfairly or unjustly harm the EDC's ratepayers.

Prior to rejecting the final decision, the Commission must notify the Parties of its intended action and provide an opportunity for a response.

- (d) Either Party may request reconsideration of the Commission's order issued under subsection (c) as provided in ORS 756.561. A Party may appeal a Commission order as provided in ORS 756.610.
- (e) A Party may not seek judicial review of an arbitrator's final decision except as provided in subsection (d).
- (5) Costs: Each Party is responsible for its own costs incurred during the arbitration process and for the following costs, if applicable:
- (a) One half the cost of the single arbitrator jointly chosen by the Parties; or
- (b) The cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen.

Stat. Auth.: ORS Ch. 183, 756 & 757

Stats. Implemented: ORS 756.040 & 756.060

Hist.: NEW

Small Generator Facility

Tier 1 Interconnection Request Application Form (Applies to Lab Certified, Inverter-based Small Generator Facilities With a Name Plate capacity of 25 kW or less)

Applicant Contact Information;

Name				
Mailing Address:				
City:		State:		Zip Code:
Telephone (Daytime):		(Evening)	:	
Facsimile Number:		E-Mail Ad	ldress:	
System Installer;			Check if	Owner Installed
Name:				
Mailing Address:				
City:		State:		Zip Code:
Telephone (Daytime):		(Evening)	:	
Facsimile Number:		_ E-Mail Ad	ldress:	
Location (if different from a	above):			
Electric Distribution Compa Account Number (existing				
Proposed Operation Mode		QF \		Other
If QF, has Applicant compl				
Prime Mover Type				<u> </u>
Inverter Manufacturer:				
Inverter Electric Nameplate				
Inverter Electrical Connect				
System Design Capacity:	(F	<w)< td=""><td>_ (kVA)</td><td></td></w)<>	_ (kVA)	
Prime Mover:	Photovoltaid	Reciprod	cating Engin	ne 🗌 Fuel Cell 🗌
	Turbine 🗌	Other		
Energy Source:	Solar 🗌 W	ind 🗌 Hydı	ro 🗌 Diese	el 🗌 Natural Gas
	Fuel Oil 🗌	Other		

Tier 1 Interconnection Request Application Form (continued)

Is the inverter lab certified? Yes No (If yes, attach manufacturer's cut sheet showing listing and label information from the appropriate listing authority, e.g. UL 1741 listing. If no, facility does not qualify for Tier 1 consideration. Refer to the PUC rules found in OAR Chapter 860, Division 082 for details.)
Estimated Commissioning Date:
Estimated Commissioning Date:
Applicant Signature:
I here-by attest that the information submitted on this application is accurate to the best of my knowledge and have included the non-refundable application fee of \$100 with my Tier 1 Interconnection Request:
(Applicant Signature)
Title: Date:
Application fee (\$100) included
Interconnection Request Acknowledgement: Receipt of the application and application fee is hereby acknowledged.
Approval for a Tier 1 Small Generator Facility interconnection is contingent upon the Applicant's Small Generator Facility passing the Tier 1 screens and completing the review process set forth in PUC Rule)AR 860, Division XXX and is not granted by the EDC's signature on this Application Form
EDC Representative Signature: Date:
Printed Name:Title:
Indicate whether EDC plans to perform Witness Test: Yes_ No

Note: The EDC shall retain a copy of this completed and signed form and return the original and any attachments to the Applicant.

Application for Small Generator Facility Interconnection Tier 2, Tier 3 or Tier 4 Interconnection (For Small Generator Facilities with Electric Nameplate Capacities of 10 MW and less)

Applicant Contact Information	:	
Name:		
Mailing Address:		
City:	State:	Zip Code:
Telephone (Daytime):	(Evening):	
Facsimile Number:	E-Mail Address:	
Address of Customer Facility V	Vhere Small Generator Facil	ity will be Interconnecte
(if different from above)		
Street Address:		
City:	State:	Zip Code:
Name:		
Telephone (Daytime):		
Facsimile Number:		
Electric Service Information for	Applicant's Facility Where	Generator Will Be Inter
Capacity:(Amps) V	oltage:(Volts)	
Type of Service: Single Phase	e	
If 3 Phase Transformer Indicate	Type: Wye Delta	

Tier 2, Tier 3 or Tier 4 Interconnection Application (cont.)

Requested Procedure Under Which to Evaluate Interconnection Request¹:

Please indicate below which review procedure applies to the interconnection request.
☐ Tier 2 - Certified interconnection equipment with an aggregate Electric Nameplate Capacity of 2 MW or less. Indicate type of certification below. The application fee amount is \$500.
☐ <u>Lab Tested</u> - tested to IEEE 1547.1 and other specified standards by a nationally recognized testing laboratory and is appropriately labeled.
Field Tested – an identical small generator facility has been approved by a Oregon utility under a Tier 4 study review process within the prior 36 months of the date of this interconnection request.
☐ Tier 3 – A Small Generator Facility connected to the T&D system that does not export power. The Electric Nameplate Capacity rating may be up to 50 kW, if connecting to area network or up to 10 MW if connecting to a radial distribution feeder. The application fee amount is \$1000.
☐ Tier 4 – Electric Nameplate Capacity rating is up to 10 MW and the Small Generator Facility does not qualify for a Tier 1, Tier 2 or Tier 3 review or has been reviewed but not approved under a Tier 1, Tier 2 or Tier 3 review. Application fee amount is \$1000.
¹ <u>Note:</u> Descriptions for interconnection review categories do not list all criteria that must be satisfied. For a complete list of criteria, please refer to PUC Administrative Rules <u>Chapter</u> 860 Division 082, (Rule).

Field Tested Equipment:

If the field tested equipment box is checked above, please include with the completed application the following information which will be required for review of Tier 2 field tested small generator facilities:

- A copy of the Certificate of Completion, signed by an Oregon utility that has approved an identical small generator facility for parallel operation.
- A copy of all documentation submitted to the Oregon utility that approved the Small Generator Facility for parallel operation under a Tier 4 study process.
- A written statement by the Applicant indicating that the small generator facility being proposed is identical, except for Minor Equipment Modification, to the one previously approved by an Oregon utility for parallel operation.
- If a Tier 2 Application, utilizing Field Tested equipment, is proposed the remainder of the application will not be required to be completed.

Tier 2, Tier 3 or Tier 4 Interconnection Application (cont.)

Small Generator Facility Information:

List interconnection components/system(s) to be used in the Small Generation Facility that are lab certified (required for Lab Tested, Tier 2 Interconnection requests only).

Component/System	NRTL Providing Label & Li	isting
1 2		
3		
4		
5		
Energy Production Equipment/Inve	·	auons
Synchronous Induction [
Electric Nameplate Rating:	kW kVA	
Rated Voltage:V	olts	
Rated Current:	Amps	
System Type Tested (Total System):	☐ Yes ☐ No; (attach product lite	rature)
For Synchronous Machines:		
Manufacturer:		
Model No.: Versi	on No.:	
Submit copies of the Saturation Curve	e and the Vee Curve.	
Salient Non-Salient		
Torque: lb-ft Rated RPM:		
Field Amperes: at rated ge	nerator voltage and current and	% PF over-excited
Type of Exciter:		
Output Power of Exciter:		
Type of Voltage Regulator:		
Locked Rotor Current: Amp	ps	
Synchronous Speed:RPM		
Winding Connection:		
Min. Operating Freq./Time:		
Generator Connection: 🗌 Delta 🔲	Wye 🗌 Wye Grounded	
Direct-axis Synchronous Reactance	(Xd) ohms	

Tier 2, Tier 3 or Tier 4 Interconnection Application

Direct-axis Transient Reactance: (X'd) ____ohms Direct-axis Sub-transient Reactance: (X"d) ____ohms **For Induction Machines:** Manufacturer: Model No.: ______ Version No.: _____ Locked Rotor Current: _____ Amps Rotor Resistance: (Rr) ____ohms Exciting Current: ____Amps Rotor Reactance: (Xr)____ohms Reactive Power Required: _____ Magnetizing Reactance: (Xm)___ohms ___VARs (No Load) Stator Resistance: (Rs)____ohms ___VARs (Full Load) Stator Reactance: (Xs) ohms Short Circuit Reactance: (X"d)____ohms Phases: Single Three-Phase Frame Size: ______ Design Letter: ____ Temp. Rise: ______oC. Reverse Power Relay Information: (This section applies to Tier 3 Review Only) Manufacturer: ______Model:_____ Electric Nameplate Capacity rating: (kVA)_____ **Additional Information For Inverter Based Facilities:** Inverter Information: Manufacturer:_____ Model: ______ Type: Forced Commutated Line Commutated Electric Nameplate Capacity Rated Output: _____ Amps ____ Volts _____kW Efficiency: ______% Power Factor: ______% DC Source / Prime Mover: ☐ Wind ☐ Hydro ☐ Other _____ Solar Rating: _____ kVA Electric Nameplate Capacity Rating: _____ kW Rated Voltage: ______Volts Open Circuit Voltage (If applicable): ______Volts Rated Current: _____Amps Short Circuit Current (If applicable): _____ _Amps

Tier 2, Tier 3 or Tier 4 Interconnection Application (cont.)

Other Facility Information:	
ls Facility a QF? Yes□ No□	
If yes, has Applicant completed FERC "Notice of S	elf Certification"? Yes No
One Line Diagram attached: 🗌 Yes 🔲 No	
Plot Plan attached: 🗌 Yes 🔲 No	
Installation Test Plan attached: Yes No	
Estimated Commissioning Date (if known):	
Annlinent Cimpature	
Applicant Signature: I hereby certify that all of the information provided i	n this application request form is correct
Thereby certify that all of the information provided i	ir triis application request form is correct.
Applicant Signature:	
Title: Da	ale:
An application fee is required before the application	o can be processed. Please verify that the
appropriate fee is included with the application:	Team be processed. Thease verify that the
Application fee included	
Amount	
EDC Acknowledgement:	
hereby acknowledge the receipt of a Interconnect	ion Request and Application Free.
Approval for a Tier 2, Tier 3 or Tier 4 Small Genera	•
upon the Applicant's Small Generator Facility pass	
process set forth in the PUC rules found in OAR 86	30, Division 082 and is not granted by the
EDC's signature on this Application Form.	
EDC Signature:	Date:
Printed Name:Tit	:le:

Note: The EDC shall retain a copy of this completed and signed form and return the original and any attachments to the Applicant.

Small Generator Facility Interconnection Certificate of Completion Form¹

Name:			
City:	State:_		Zip Code:
Telephone (Daytime):		_ (Evening): _	
E-Mail Address/ Fax number: _		_	
<u>Installer</u> Name:			Check if owner-installed
			Zip Code:
Telephone (Daytime):		_ (Evening): _	
E-Mail Address/ Fax number:			
Signed	-		val by the EDC as provided below.
(Signature of Applica Printed Name:	ant)		
Check if copy of signed electric	=		
Acceptance and Final Approve			allation(for EDC use only)
	of the PUC A	Administrative	Generator Facility is approved for operation Rules found in Chapter 860, Division 082 and
	Witness Te	st:	Passed: (Initial) () Date:
Printed Name:			Title:

¹ The interconnection shall not be deemed complete and ready for operation until the Applicant has complete this form, secured the necessary attachments and signatures and returned a copy to the EDC at the EDC's designated address.

Interconnection Facilities Study Form Agreement

This agreement is made and entered into thisby
and between, a organized and existing under the laws of the State of, ("Applicant,")
and, aexisting under the laws of the State of
existing under the laws of the State of, ("EDC). Applicant and EDC each may be
referred to as a "Party," or collectively as the "Parties."
Recitals:
Whereas, Applicant is proposing to develop a Small Generating Facility or adding generating capacity to an existing Small Generating Facility consistent with the Application completed by the Applicant on
; and
Whereas , The Applicant desires to interconnect the Small Generating Facility with the EDC's T&D System;
Whereas, The EDC has completed an Interconnection System Impact Study and provided the results of said study to the Applicant; and
Whereas, The Applicant has requested the EDC to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the
Interconnection System Impact Study in accordance with Good Utility Practice to
physically and electrically connect the Small Generating Facility to the EDC's T&D System.
Now, therefore , in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:
1. When used in this agreement, with initial capitalization, the terms specified shall have the meanings given in the PUC's rules found at OAR 860-082-0010 through 860-082-0080.
2. Interconnection Customer and Electric Distribution Company shall cause an Interconnection Facilities Study consistent with OAR 860-082-0010 through 860-082- Formatted: Highlight 0080.
3. The Applicant will provide the data requested in Section 2 of this Form. The scope

of the Interconnection Facilities Study shall be subject to this data.

- 4. An Interconnection Facilities Study report (1) shall provide a description, estimated cost of (consistent with Section 2), schedule for required facilities to interconnect the Small Generator Facility to the EDC's T&D System and (2) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
- 5. The EDC will may require a study deposit as described in OAR 860-082-0030(6) of the Rule.
- 6. In cases where no Upgrades are required, the Interconnection Facilities Study shall be completed and the results will be transmitted to the Applicant within thirty Calendar Days after this agreement is signed by the Parties.
- 7. Study fees will be detailed in OAR 860-082-0030 of the Rule and will be based on actual costs.
- 8. The Cost Responsibility for Studies is detailed in OAR 860-082-0030 of the Rule.

In witness whereof, the Parties have caused this agreement to be duly executed by their duly authorized officers or agents on the day and year first above written:

[Insert name of the EDC]

Signed				
Name (Printed):	Title			
[Insert name of the Applicant]				
Signed		_		
Name (Printed):		Title_		

Section 2 to the Interconnection Facilities Study Agreement Data To Be Provided by Applicant With the Interconnection Facilities Study Agreement

Provide location plan and simplified one-line diagram of the plant and station facilities.

For staged projects, please indicate future generation, distribution circuits, etc. On the one-line diagram, indicate the generation capacity attached at each metering location (Maximum load on CT/PT).

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT), Amps.

One set of metering is required for each generation connection to the new ring bus or existing Electric Distribution Company station.

Number of generation connections:
Will an alternate source of auxiliary power be available during CT/PT maintenance?
YesNo
Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?
YesNo(Please indicate on the one-line diagram).
What type of control system or PLC will be located at the Generating Facility?
What protocol does the control system or PLC use?
Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, distribution line, and property lines.
Physical dimensions of the proposed interconnection station:
Bus length from generation to interconnection station:
Line length from interconnection station to the EDC's T&D System:
Tower number observed in the field. (Painted on tower leg)*:
Number of third party easements required for distribution lines*:*

To be completed in coordination with Electric Distribution Company.

Is the Small Generating Facility located in EDC's service area?
YesNo
If No, please provide name of local provider:
Please provide the following proposed schedule dates:
Begin Construction Date:
Generator step-up transformers receive back feed power Date:
Generation Testing Date:
Commercial Operation Date:

Interconnection Feasibility Study Form Agreement

This agreement is made and entere	ed into this	day of	by and
between	, a		organized
and existing under the laws of the	State of		,
("Applicant,") and			
ex	xisting under the l	aws of the State	of
	, (''EDC''). Ap	plicant and EDC	each may be
referred to as a "Party," or collec	tively as the "Par	ties.''	
Recitals:			
Whereas, The Applicant is proposed adding generating capacity to an eapplication completed by Intercontage.	existing Small Ger	nerating Facility	•
on	; and		
Whereas, Applicant desires to into T&D System; and	erconnect the Sma	all Generating Fa	ncility with EDCs
Whereas, Applicant has requested Feasibility Study to assess the feasibility			

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

Generating Facility to EDC's T&D System;

- 1. When used in this Agreement, with initial capitalization, the terms specified shall have the meanings given in PUC Rule OAR 860-082-0010 through 860-082-0080.
- 2. Interconnection Customer elects and Electric Distribution Company shall cause to be performed an Interconnection Feasibility Study consistent with OAR 860-082-0010 through 860-082-0080.
- 3. The scope of the Interconnection Feasibility Study shall be subject to the assumptions set in the rule and detailed in Section 2 to this agreement form.
- 4. The Interconnection Feasibility Study shall be based on the technical information provided by the Applicant in their Application, as may be modified as the result of the Scoping Meeting. The EDC reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study. If, in the course of the Study, the Applicant finds it necessary to modify the Application, the time to complete the Interconnection Feasibility Study may be extended by mutual agreement of the Parties.

- 5. In performing the study, the EDC will rely, to the extent reasonably practicable, on existing studies of recent vintage. The Applicant will not be charged for such existing studies. OAR 860-082-0030 details cost responsibility associated with any new study or modifications to existing studies that are reasonably necessary to perform the Interconnection Feasibility Study.
- 6. The Interconnection Feasibility Study report shall provide the following information:
- 6.1 Preliminary identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection,
- 6.2 Preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection, and
- 6.3 Preliminary description and non-bonding estimated cost of facilities required to interconnect the Small Generating Facility to the EDC's T&D System and to address the identified short circuit and power flow issues.
- 7. The Interconnection Feasibility Study shall be completed and the results shall be transmitted to Interconnection Customer within thirty Calendar Days after this agreement is signed by the Parties.
- 8. Study fees will be based on actual costs in accordance with the provisions of 860-082-0030.

[Insert name of Electric Distribution Company]

In witness whereof, the Parties have caused this agreement to be duly executed by their duly authorized officers or agents on the day and year first above written:

Signed	_	-		
Name (Printed):				
	Title		 	
[Insert name of Applicant]				
Signed		_		
Name (Printed):		Title		

Section 2: Interconnection Feasibility Study Agreement Assumptions Used in Conducting the Interconnection Feasibility Study

The Interconnection Feasibility Study will be based upon the information set forth in the Application and agreed upon in the Scoping Meeting held
on:
1. Designation of Point of Interconnection and configuration to be studied.
2. Designation of alternative Points of Interconnection and configuration.
Note: 1 and 2 are to be completed by the Applicant. Any other assumptions (listed below) are to be provided by the Applicant or the EDC.

End

Interconnection System Impact Study Form Agreement

This agreement is made and entered into this		
and between		1' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
	, (***	Applicant, (1)
and, a	s of the State	of
, ("EDC"). Applicant and EDC each m		
"Party," or collectively as the "Parties."	J	
Recitals:		
Whereas, The Applicant is proposing to develop a Sm adding generating capacity to an existing Small Gener Application completed on a	ating Facility of	•
Whereas , The Applicant desires to interconnect the St EDC's T&D System;	mall Generatin	g Facility with the
Whereas, The EDC has completed an Interconnection the results of said study to the Applicant (This recital tagreed to forego the Interconnection Feasibility Study.	to be omitted it	•
Whereas, The Applicant has requested the EDC performance Study to assess the impact of interconnecting the EDC's T&D System;		•
Now, therefore , in consideration of and subject to the herein the Parties agree as follows:	mutual covens	ants contained
1. When used in this agreement, with initial capitaliza have the meanings given in OAR 860-082-0005 through		
2. Applicant elects and EDC shall cause to be perform Impact Study consistent with OAR 860-082-0055.	ned an Intercor	nnection System
3. The scope of the Interconnection System Impact St assumptions set forth below in Section 2 to this agreen		abject to the
4. The Interconnection System Impact Study will be be Interconnection Feasibility Study and the technical infinithe Application. The E D C reserves the right to require	formation prov	ided by Applica

information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System

Impact Study. If the Applicant modifies its designated Point of Interconnection, Application, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be (mutually?) extended.

- 5. The Interconnection System Impact Study report shall provide the following information:
- 5.1 Identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection,
- 5.2 Identification of any thermal overload or voltage limit violations resulting from the interconnection,
- 5.3 Identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
- 5.4 Description and good faith non-binding, estimated cost of facilities required to interconnect the Generating Facility to EDC's Electric Distribution Company's Electric Transmission and Distribution T&D System and to address the identified short circuit, instability, and power flow issues.
- 6. The Interconnection System Impact Study, if required, shall be completed and the results transmitted to the Applicant within thirty 30 Calendar Days after this agreement is signed by the Parties or in accordance with the EDC's or as mutually agreed to by the Parties. queuing procedures.
- 7. Electric Distribution Company may require a study deposit as prescribed 860-082-0030 Section 3 of the Rule.
- 8. Study fees are described in OAR 860-082-0030 Section 3 of the Rule and will be based on actual costs.
- 9. Cost responsibility is described in OAR 860-082-0030 Section 3 of the rule.

[Insert name of Electric Distribution Company]

In witness thereof, the Parties have caused this agreement to be duly executed by their duly authorized officers or agents on the day and year first above written:

r	Λī
Signed	
Name (Printed):	
Title	
[Insert name of Interconnection Customer]	
Signed	
Name (Printed):	Title

Section 2: Interconnection System Impact Study Agreement Assumptions Used in Conducting the Interconnection System Impact Study

The Interconnection System Impact Study shall be based upon the results of the Interconnection Feasibility Study, subject to any modifications in accordance with OAR 860-082-0005 through 860-082-0080, and the following assumptions:

1.	Designation of Point of Interconnection and configuration to be studied.
2.	Designation of alternative Points of Interconnection and configuration.

Note: 1 and 2 are to be completed by the Interconnection Customer. Any other assumptions (listed below) are to be provided by the Applicant or the EDC.

End



Interconnection Equipment Specifications, Initial Settings and Operating Requirements *

Address of Facility

Interconnection Cus Facility Operator (if	tomer:different than above):	
	ame: Phone	
	State:	
Revision Date:		
	Energy Production Equipment/Inve	erter Information
Synchronous	☐ Induction ☐ Inverter ☐ Oth	her
Electric Nameplate	Rating: kW	kVA
Rated Voltage:	Volts	
Rated Current:	Amps	
Phases: Single [☐ Three-Phase	
System Type Tested	d (Total System): 🗌 Yes 🔃 No; atta	ach product literature
	For Synchronous Mach	nines
Manufacturer:		
Model No.:	Version No.:	
Submit copies of the	e Saturation Curve and the Vee Curve	Salient Non-Salient
Field Amperes:	at rated generator voltage and c	urrent and% PF over-excited
Type of Exciter:		
Output Power of Ex	citer:	
Type of Voltage Reg	gulator:	
Locked Rotor Curre		
Synchronous Speed	l:RPM	
Winding Connection	ı:	
Min. Operating Freq	./Time:	
Generator Connection	on: 🗌 Delta 🔲 Wye 🔲 Wye Grou	nded
Direct-axis Synchron	nous Reactance (Xd)ohn	ms
Direct-axis Transien	t Reactance: (X'd)ohms	
Direct-axis Sub-tran	sient Reactance: (X"d)oh	ms



For Induction Machines

Manufacturer:						
Model No.:	Version No.:					
Locked Rotor Current: _	Amps					
Rotor Resistance: (Rr)_	ohms Exciting	Current:	Amps			
Rotor Reactance: (Xr)	ohms Reactive	Power Requ	uired:	_		
Magnetizing Reactance:	(Xm)ohms	VARs (I	No Load)			
Stator Resistance: (Rs)_	ohmsVARs	(Full Load)				
Stator Reactance: (Xs)_	ohms					
Short Circuit Reactance:	(X"d)ohms					
Electric Nameplate Capa	acity rating: (kVA)					
	For Inverter	Based Fac	<u>cilities</u>			
Manufacturer:	M	odel:				
Type: Torced Commu	utated 🗌 Line Com	mutated				
Electric Nameplate Capa	acity Rated Output: _	/	Amps	Volts _		_kW
Efficiency:%	Power Factor:	%				
Is Inverter Lab Tested? [Tes (attach produc	ct literature)	☐ No			
	DC Source	e / Prime M	over:			
☐ Solar ☐ Wind	☐ Hydro ☐ Othe					
Electric Nameplate Capa	-				kVA	
Rated Voltage:			5 —			
Open Circuit Voltage (If			Volts			
Rated Current:						
Short Circuit Current (If a	-		Amps			
			-			
	Other Faci	lity Inform	<u>ation</u>			
One Line Diagram attach	ned: Yes No					
Plot Plan attached: Y	es 🗌 No					
Isolation Device Type/ Lo	ocation:					
Grounding Configuration	i <u>.</u>					
Initial Commissioning Da	ate:					



Switchgear/ Circuit Interruption Devices

Switchgear type and control: (used to b	oring generator on line)
Circuit Breakers: Closed-transition	☐ Open –transition ☐ Auto Transfer Switch
Nameplate:	
	Motorina
Location:	<u>Metering</u>
Metering Issues:	
Monitoring Provisions:	□ No
Monitoring Values:	
Monitoring Issues:	
	<u>Telemetry</u>
Telemetry Requirements:	
System Configuration:	
Data Scan Rate:	
Data Point List:	
Telemetry Data Delivery Location:	
Initial Set poi	nts at Point of Interconnection
Voltage: KVA	
Power factor:	
Other:	
Othor	



Trip Re-start Protocol

Reclosing Practice:				
Hold out time:				
Ramp Rate:				
Notification required: Yes	□ No			
<u>Oper</u>	ations and Maintenance Schedule			
Operating Hours:	Availability (%):			
Seasonal Effect:				
Routine and Annual Maintenance Schedule:				

^{*} Initial operating set points and as built equipment date is to be recorded on or about the time of the Witness Test. It shall remain part of the permanent interconnection record described in the Rule in OAR 860-082-0060. Parties may not deviate from initial settings and agreed upon operating parameters except as permitted by the Rule without written authorization of the EDC. The Interconnection Customer will furnish updated information to the EDC any time a special operating requirement initial set point or the Interconnection Equipment is materially changed.

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

	Interconnection Agreement (sometimes also referred to as "Agreement") is made and entered day of by and between, a organized and ler the laws of the State of, ("Applicant") and, a
existing und	ler the laws of the State of, ("Applicant") and, a
	, existing under the laws of the State of
	, ("EDC"). The Applicant and EDC each may be referred to as a
"Party," or	collectively as the "Parties."
Recitals:	
	eas, the Applicant is proposing to develop a Small Generator Facility, or to add generating ty to an existing Small Generator Facility, consistent with the Application completed on;
	eas, the Applicant desires to interconnect the Small Generator Facility with EDC's T&D n.; and
Applio Divisi meani	eas, the Agreement shall be used for all approved Tier 1, Tier 2, Tier 3 and Tier 4 cations according to the procedures set forth in OPUC Administrative Rules Chapter 860, on 082 (Rule). Terms with initial capitalization, when used in this Agreement, shall have the ngs given in the Rule and, to the extent this Agreement conflicts with the Rule, the Rule shall recedence.
	therefore, in consideration of and subject to the mutual covenants contained herein, the sagree as follows:
<u>Articl</u>	e 1. Scope and Limitations of Agreement
1.1	Scope
	The Agreement establishes standard terms and conditions approved by the Commission under which the Small Generator Facility with a Name Plate Capacity of up to 10MW will interconnect to, and operate in Parallel with, the EDC's T&D System. Additions, deletions or changes to the standard terms and conditions of an Interconnection Agreement will not be permitted unless they are mutually agreed to by the Parties or approved by the Commission if required by the Rule. Power Purchase
1.2	
	The Agreement does not constitute an agreement to purchase or deliver the Applicant's
1.2	power nor does it constitute an electric service agreement.
1.3	Other Agreements Nothing in the Interconnection Agreement is intended to affect any other agreement between the EDC and the Applicant or another Interconnection Customer. However, in the event that the provisions of the Agreement are in conflict with the provisions of other EDC tariffs the EDC tariff shall control

1.4 Responsibilities of the Parties

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

1.5 Parallel Operation and Maintenance Obligations

Once the Small Generator Facility has been authorized to commence Parallel Operation by execution of the Interconnection Agreement, the Applicant will abide by all written provisions for operating and maintenance as required by the Rule and detailed by the EDC in Form 7, title "Specifications, Special Operating Requirements and Initial Settings" a copy of which is provided on the Commission's website.

1.6 Metering

The Interconnection Customer will be responsible for metering as required by OAR 860-082-0065 of the Rule.

1.7 Power Quality

The Applicant will design its Small Generator Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection that meets the requirements set forth in IEEE 1547. The EDC may, in some circumstances, also require Applicants to follow voltage or VAR schedules used by similarly situated, comparable generators in the control area. Any special operating requirements will be detailed in Form 4 provided on the Commission website and completed by the EDC as required by the Rule. Under no circumstances shall these additional requirements for voltage or reactive power support exceed the normal operating capabilities of the Small Generator Facility.

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

2.1 Equipment Testing and Inspection

The Applicant will test and inspect its Small Generator Facility and Interconnection Facilities prior to interconnection in accordance with IEEE 1547 Standards as provided for in Section 3.5 of the Rule. The Interconnection will not be final until the Witness Test and Certificate of Completion provisions in either Section 4.5. 5.5, 6.6 or 7.8 of the Rule have been satisfied. Operation of the Small Generator Facility requires an and such requirements for Interconnection Agreement, electricity sales require a and Power Purchase Agreements as re Rule are met.

To the extent that an Applicant decides to conduct interim testing of the Small Generator Facility prior to the Witness Test, it may request that the EDC observe these tests and that these tests be deleted from the final Witness Test. If the EDC sends qualified personnel to

the Small Generator Facility to observe such interim testing, it will be doing so at its own expense.

2.2 Right of Access:

As provided in OAR 860-082-0020 Section 3.6.8 of the Rule, the EDC will have access to the Applicant's premises for any reasonable purpose in connection with the Interconnection Application and any Interconnection Agreement that is entered in to pursuant to this Rule or if necessary to meet the legal obligation to provide service to its customers. Access will be requested at reasonable hours and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition.

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

3.1 Effective Date

The Agreement shall become effective upon execution by the Parties.

3.2 Term of Agreement

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

3.3 Termination

No termination will become effective until the Parties have complied with all applicable laws and any clauses of the Rule as detailed in OAR 860-082-0075 or this Agreement applicable to such termination.

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

3.4 Temporary Disconnection

The EDC or Applicant may temporarily disconnect the Small Generator Facility from its T&D System for so long as reasonably necessary, as provided in OAR 860-082-0075Section 3.6.11 of the Rule, in the event one or more of the following conditions or events occurs:

3.4.1 Under emergency conditions, the EDC or the Interconnection Customer may immediately suspend interconnection service and temporarily disconnect the Small Generator Facility. The EDC shall notify the Applicant promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the Small Generator Facility operation. The Applicant will notify the EDC promptly when it becomes aware of an emergency condition that may reasonably be expected

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

3.5 Restoration of interconnection:

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

Article 4. Cost Responsibility and Billing:

The Applicant is responsible for the application fee and for such facilities, equipment, modifications and upgrades as required in the Rule at OAR 860-082-0030.

4.1 Minor T&D System Modifications:

Modifications to the existing T&D Systems identified by the EDC under a Tier 2 or Tier 3 review, such as changing meters, fuses or relay settings, are deemed Minor Modifications. It is the EDC's sole discretion to decide what constitutes a Minor Modification. The Applicant will bare the costs of making such Minor Modifications as may be necessary to gain approval of an Application.

4.2 Interconnection Facilities:

The EDC will identify under the review procedures of a Tier 2 review or under a Tier 4 Facilities Study, the Interconnection Facilities necessary to safely interconnect the Small Generator Facility with the EDC. The EDC will itemize the Interconnection Facilities for the Applicant, including the cost of the facilities and the time required to build and install those facilities. The Applicant is responsible for the cost of the Interconnection Facilities.

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

4.4 System Upgrades:

The EDC will design, procure, construct, install, and own any System Upgrades. The actual cost of the System Upgrades, including overheads, will be directly assigned to the Applicant. An Interconnection Customer may be entitled to financial compensation from other EDC Interconnection Customers who, in the future, benefit from the System Upgrades paid for by the Interconnection Customer. Such compensation will be governed by separate rules promulgated by the Commission or by terms of a tariff filed and approved by the Commission. , Such compensation will only be available to the extent provided for in the separate rules or tariff.

4.5 Adverse System Impact:

The EDC is responsible for identifying Adverse System Impacts on any Affected Systems and for determining what mitigation activities or upgrades may be required to accommodate a Small Generator Facility. The actual cost of any actions taken to address the Adverse System Impacts, including overheads, shall be directly assigned to the Applicant. The Applicant may be entitled to financial compensation from other EDCs, or other Interconnection Customers who, in the future, utilize the upgrades paid for by the Applicant, to the extent as allowed by the Commission.

4.6 Billings:

The EDC may require a deposit of not more than 50% of the cost estimate, not to exceed \$1000, to be paid up front by the Applicant for studies or Interconnection Facilities necessary to complete an Application and to interconnect to the T&D System. Progress billing and final billing and payment schedules shall be agreed to by Parties prior to commencing work.

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

5.1 Assignment

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

The Interconnection Agreement may be assigned by either Party upon fifteen (15) Business Days prior written notice, and with the opportunity to object by the other Party.

5.1.1 Either Party may assign the Agreement without the consent of the other Party to any affiliate (which shall include a merger of the Party with another entity), of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement;

- 5.1.2 The Applicant shall have the right to assign the Agreement, without the consent of the EDC, for collateral security purposes to aid in providing financing for the Small Generator Facility. For Small Generator systems that are integrated into a building facility, the sale of the building or property will result in an automatic transfer of this agreement to the new owner who shall be responsible for complying with the terms and conditions of this Agreement.
- 5.1.3 Any attempted assignment that violates this Article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same obligations as the Applicant.

5.2 Limitation of Liability and Consequential Damages

A Party is liable for any loss, cost claim, injury, or expense including reasonable attorney's fees related to or arising from any act or omission in its performance of the provisions of an Interconnection Agreement entered into pursuant to the Rule except as provided for in ORS 757.300(4)(c). Neither Party will seek redress from the other Party in an amount greater than the amount of direct damage actually incurred.

5.3 Indemnity

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

5.4 Consequential Damages

Neither Party shall be liable to the other Party, under any provision of the Agreement, for any losses, damages, costs or expenses for any special, indirect, incidental, consequential,

or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

5.5 Force Majeure

- 5.5.1 As used in this Agreement, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."
- If a Force Majeure Event prevents a Party from fulfilling any obligations under this 5.5.2 Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance, and if the initial notification was verbal, it should be promptly followed up with a written notification. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends the Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be reasonably mitigated. The Affected Party will use reasonable efforts to resume its performance as soon as possible. The Parties shall immediately report to the Commission should a Force Majeure Event prevent performance of an action required by Rule that the Rule does not permit the Parties to mutually waive.

5.6 Default

- 5.6.1 No default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement, or the result of an act or omission of the other Party. Upon a default, the non-defaulting Party shall give written notice of such default to the defaulting Party. Except as provided in Article 5.6.2, the defaulting Party shall have sixty (60) Calendar Days from receipt of the default notice within which to cure such default; provided however, if such default is not capable of cure within 60 Calendar Days, the defaulting Party shall commence such cure within twenty (20) Calendar Days after notice and continuously and diligently complete such cure within six months from receipt of the default notice; and, if cured within such time, the default specified in such notice shall cease to exist.
- 5.6.2 If a default is not cured as provided for in this Article, or if a default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate the Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates the Agreement, to recover from the defaulting Party all amounts

due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. Alternately, the non-defaulting Party shall have the right to seek dispute resolution with the Commission in lieu of default. The provisions of this Article will survive termination of the Agreement.

Article 6. Insurance

A Party is liable for any loss, cost claim, injury, or expense including reasonable attorney's fees related to or arising from any act or omission in its performance of the provisions of this Rule or the Interconnection Agreement entered into pursuant to this Rule. General liability insurance is not required for approval of an interconnection Application, or for the related Interconnection Agreement, for a Small Generator Facility with an Electric Nameplate Capacity of 200 KW or smaller, or for a Net Metering Facility as provided for in ORS 757.300(4)(c). All other Interconnection Customers may be required by the EDC are required to obtain prudent amounts of general liability insurance in an amount sufficient to protect other Parties from any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of the provisions of this Rule or the Interconnection Agreement entered into pursuant to this Rule. Neither Party will seek redress from the other Party in an amount greater than the amount of direct damage actually incurred.

Article 7. Dispute Resolution

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

Article 8. Miscellaneous

8.1 Governing Law, Regulatory Authority, and Rules

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

8.2 Amendment

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

8.3 No Third-Party Beneficiaries

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

8.4 Waiver

- 8.4.1 The failure of a Party to the Agreement to insist, on any occasion, upon strict performance of any provision of the Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- 8.4.2 The Parties may agree to mutually waive a section of this Agreement so long as prior Commission approval of the waiver is not required by the Rule as provided in 860-082-005(3) of the Rule.

8.4.3 Any waiver at any time by either Party of its rights with respect to the Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of the Agreement. Any waiver of the Agreement shall, if requested, be provided in writing.

8.5 Entire Agreement

The Interconnection Agreement, including any supplementary Form attachments that may be necessary, constitutes the entire Agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of the Agreement. There are no other agreements, representations, warranties, or covenants that constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under the Agreement.

8.6 Multiple Counterparts

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

8.7 No Partnership

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

8.8 Severability

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

8.10 Subcontractors

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

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

8.11 Reservation of Rights

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

Article 9. Notices and Records

9.1 General

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

9.2 Records

The utility will maintain a record of all Interconnection Agreements and related Form attachments for as long as the interconnection is in place as required by OAR 860-082-0060Section 3.6.3.2 of the Rule. The utility will provide a copy of these records to the Applicant or Interconnection Customer within 15 Business Days if a request is made in writing.

If to the Applicant:

Applicant: _			
Attention:			
City:	State:	Zip:	
Phone:	Fax:	_ E-mail	-
If to EDC:			
EDC			
Attention:			
Address:			
City:	State:	Zip:	
Phone:	Fax:	E-mail	_
9.3	Billing and Payment Billings and payments shall be sent to than article 9.2 above)	o the addresses set out belo	ow: (complete if different
If to the Ap	<u>plicant</u>		
Applicant: _			
Attention:			
	State:		
•		=	

If to EDC			
EDC:			_
Attention: _			
Address:			
City:		State:	Z1p:
9.4	The Parties will designa may be necessary or cor Agreement. This person	te operating represenvenient for the adm will also serve as the	ntatives to conduct the communications whinistration of the operations provisions of the point of contact with respect to operation emplete if different than article 9.2 above)
Applicant's Operating	<u>s</u> representative:		
Address:			
City:	Fax:	State:	Zip:
Phone:	Fax:	E-M	ail
Attention: _	Representative:		
Address:		State	7in:
Phone:	Fax:	State	zip
Eithe to the	e effective date of the chan	otice information by	giving five Business Days written notice p
Article 10.	Signatures		
	SS WHEREOF, the Partie zed representatives.	s have caused the A	greement to be executed by their respective
<u>For</u>	EDC:		
Nam	ne:		
Title	y:		
Data	•		

For the Applicant:		
Name:	 	
Title:	 	
Date:		

CERTIFICATE OF SERVICE

AR 521

I certify that I have, this day, served Staff's Second Set of Comments with attachments upon all participants of record in this proceeding who have not waived paper service by mailing a copy properly addressed with first class postage prepaid and electronically to those who waived paper service to the email address provided on the attached service list.

Dated at Salem, Oregon, this 2nd day of October, 2007.

Kav Barnes

On Behalf of the Staff of the Public Utility Commission

OFFICIAL SERVICE LIST

Printed: 10/2/2007

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