

Small Generator Interconnection

BPA Transmission Business Practice

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This Business Practice provides the procedures and requirements for Small Generator Interconnection (SGI).

For more information, visit the [BPA Transmission Business Practices webpage](#) or submit questions to techforum@bpa.gov.

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A. General Small Generator Interconnection Procedures (SGIP) Eligibility Criteria

1. Prior to submitting an Interconnection Request, Interconnection Customers may contact BPA Transmission Services' (BPAT) SGIP Administrator to review whether the proposed interconnection of a Small Generating Facility is appropriately subject to the SGIP.
 - a. Contact the Interconnection Administrator at:
 - i. Phone:(360) 619-6047
 - ii. Email: Interconnection@bpa.gov
2. For an Interconnection Request to interconnect a new Small Generating Facility, the aggregate nameplate capacity of the new Generating Facility must not exceed 20 MW for the request to be eligible for consideration under the SGIP.
3. For an Interconnection Request to increase the capacity of an existing Generating Facility, the sum of the requested increase in capacity plus the existing Small Generating Facility capacity must not exceed 20 MW for the request to be eligible for consideration under the SGIP.

4. In addition to the factors set out in the sections above, all Interconnection Requests are subject to further review by BPAT to determine whether the request is subject to the SGIP. The review will consider relevant factors, including, but not limited to, ownership or Affiliation, proximity of facilities, and whether facilities share a point of interconnection. Other such factors, without limitation, may include:
 - a. The Generating Facility has been or will be constructed so that it can and will be metered separately and discretely from any other project
 - b. The Generating Facility has been or will be constructed so that the Transmission Operator views its operation as independent of any other Generating Facility.
 - c. The Generating Facility has been or will be constructed so that if a special protection system (e.g. a remedial action scheme) is a requirement for interconnection of the project, any such special protection system action could and may be initiated for, and effective on, the subject Generating Facility independently of any other Generating Facility.
 - d. Any site permit related to the Generating Facility addresses only the Generating Facility in the Interconnection Request and no other Generating Facility, whether larger in scope or not.
 - e. The Generating Facility occupies a discrete and distinguishable topographical footprint, not commingled in any way with any other Generating Facility.
 - f. Whether the Plan of Service and Interconnection Facilities provide Interconnection Service to the Generating Facility alone, or to other facilities.
 - g. The ownership structure and any Affiliate relationships of the owner of the Generating Facility or the entity submitting the Interconnection Request.
5. Interconnection requests submitted under the SGIP that BPAT determines not to meet the eligibility criteria will be deemed not to be subject to the SGIP and will not be assigned an interconnection Queue Position.
6. An Interconnection Request deemed to be subject to the SGIP will be assigned a Queue Position, in accordance with the Interconnection Queue Time described in Section F below, and reviewed for completeness.
7. Until BPA develops a separate process for generation integrations, requests to integrate small generation resources greater than 200 KW and no more than 20 MW nameplate into BPA's BAA, including Distributed Energy Resources and energy storage devices, must be submitted as Interconnection Requests under the SGIP. An integration occurs when a generation resource is operating within BPA's BAA but is not directly interconnected to BPA's transmission facilities. In advance of submitting an Interconnection Request to integrate a generation resource greater than 200 KW and less than 3 MW, including a Distributed Energy Resource or energy storage device that is connected to a BPA customer utility's transmission or distribution system, BPA encourages the customer to arrange a discussion with a Customer Service Engineer by contacting the Interconnection Administrator.

B. Deposits

1. A deposit of \$2,500 must be submitted with the Interconnection Request.
2. If BPA decides that the Interconnection Request requires a technical study, deposits for each study conducted under the SGIP will be the greater of \$5,000 or the good faith estimated study costs.
3. All deposits required during the processing of an Interconnection Request must be remitted in accordance with the criteria described below:
 - a. Electronic Funds
 - i. For instructions to pay the deposit by electronic funds transfer to BPAT, either through FedWire or Automated Clearing House (ACH), contact your Account Executive.
 - ii. When using FedWire, after "OBI=" include the words "GI Request Deposit".
 - iii. When using the ACH type of electronic transfer, include the same information in the "memo" field on the transfer.
4. Refunds
 - a. A deposit refund shall be calculated following completion of the studies under the SGIP or Withdrawal of the Interconnection Request, whichever occurs earliest.
 - b. The Entity whose name is on the Interconnection Request and W9e, Request for Taxpayer Identification Number and Certification, shall receive the deposit refund.
 - c. The final accounting for the closing out of an Interconnection Request will include costs incurred by BPAT in processing, evaluating and scoping the Interconnection Request prior to the commencement of the study.

C. General Requirements for Interconnection Requests

1. The Interconnection Customer must provide BPAT the following in any Interconnection Request for a Small Generating Facility:
 - a. A completed Small Generator Interconnection Request, Attachment 2 of the SGIP, with the paragraph index preserved and signed by a person holding signatory contractual authority. A digital signature is acceptable for requests submitted as email attachments.
 - b. A deposit transmitted within one Business Day of the submission of the Interconnection Request.
 - c. Site Control documentation.
 - d. W9e, Request for Taxpayer Identification Number and Certification of the Interconnection Customer. This requirement may be waived at the discretion of BPAT if the Interconnection Customer has submitted previous Interconnection Requests to BPAT. The Interconnection Customer should consult with its Account Executive prior to submitting its Interconnection Request for clarification.

- e. Certificate of Incorporation of the Interconnection Customer if not previously submitted to BPAT.
 - i. If an Interconnection Customer is an Affiliate of another entity, or if another entity controls the Interconnection Customer, a letter from the parent or controlling entity's letterhead is required and must include the name(s) and position(s) of those holding contractual signatory authority on behalf of the Interconnection Customer.
 - ii. The Interconnection Customer must provide BPAT with written notification of a name change to the Entity within 15 Business Days and include a cover letter with the company's official correspondence letterhead stating the new name of the company.
2. The expected In-Service Date of the new Small Generating Facility (or increase in capacity to the existing Generating Facility) must occur within seven years of the date that the Interconnection Request is received by BPAT, unless the Interconnection Customer demonstrates through documentation:
 - a. The engineering, permitting and construction will require as long as ten years, or
 - b. BPAT and the Interconnection Customer agree to a longer period.
3. Interconnection Customers also applying for transmission service with the intent to link the Transmission Service Request (TSR) to the Interconnection Request, must state that the TSR is linked to an Interconnection Request in the Customer Comments field, on the same Calendar Day as the Interconnection Request and the TSR are submitted, fax or email, to their Account Executive and include the following:
 - a. Assignment Reference (AREF) number of the TSR
 - b. Point-of-Receipt (POR)
 - c. Point of Delivery (POD)
 - d. Requested MW
 - e. Time of request of any TSR(s) to which the Interconnection Request is to be considered to be linked.
 - f. The Interconnection Request number that the TSR is to be linked to, if issued, but no later than five Business Days after submitting the TSR.
 - g. A copy of Attachment 2 of the SGIP.

D. Requirements for Wind Power Plant Interconnection Requests

1. In addition to the requirements listed above, an Interconnection Customer submitting an Interconnection Request for a wind power plant interconnection must:
 - a. Provide a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator.
 - b. Submit detailed electrical design specifications, including collector system layout and individual turbine generator data during the Interconnection System Impact

Study portion of the Study Process, but no later than six months after the Small Generation Interconnection Request submittal.

- c. Submit schematic drawing for all protective and control relaying and alarm/monitoring circuits.

E. Submission Procedures

1. The Interconnection Customer must submit the Interconnection Request to BPA by one of the following methods:

Overnight Delivery Service	<p>Bonneville Power Administration – Attn: (Addressee) Organization Mailstop: (e.g. TSE/TPP-2; TPC/TPP-4, TPP/OPP-3) 905 NE 11th Avenue Portland, OR 97232</p> <p>The Interconnection Customer must use this address if a return receipt is requested.</p>
US Postal Service	<p>Bonneville Power Administration Transmission Marketing and Sales - TSE-TPP-2, P.O. Box 61409, Vancouver, WA 98666-1409</p> <p>Regular Mail Only – Express or return receipt requested mail must be sent to the address shown under Overnight Delivery above.</p>
Facsimile (fax)	<p>Faxed Interconnection Requests will be accepted only at (360) 619-6940.</p> <p>The Interconnect Customer must include a cover page specifying the number of Interconnection Requests and the number of pages faxed.</p> <p>BPAT is not responsible for the failure of fax transmissions.</p>
Email	<p>To: Interconnection@bpa.gov Subject: Generator Interconnection</p> <p>Interconnection Requests sent to other email addresses will not be entered into the Interconnection Queue.</p> <p>The completed application and any additional documents must be attached to the email as Portable Document Format (PDF) files; if the files exceed 30 MB the customer service engineer must be contacted for directions on how to submit the files. PDF files should be referenced and specified by their exact names in the email.</p>

F. Interconnection Queue Time

1. Queue time of an Interconnection Request is determined as follows for:
 - a. **Overnight Delivery Service:** date and time when the Interconnection Request is delivered to the BPA mailroom.
 - b. **Fax:** the date and time stamp on the fax.
 - c. **Email:** the date and time that the email is received in the Interconnection@bpa.gov inbox by BPAT.
 - d. **Mail:** the date and time stamp when the Interconnection Request is received by BPAT at the TSE mailstop office.

G. NEPA Studies

1. BPAT may offer the Interconnection Customer an Environmental Study Agreement (ESA) when it is practicable after the Scoping Meeting. In certain circumstances environmental review may be included in the study agreement or any eventual construction agreement.
2. The ESA may be modified as additional environmental review circumstances are identified.
3. BPAT will accept for review, and possible contribution to NEPA compliance, an Environmental Impact Statement (EIS) or other environmental compliance documentation prepared in accordance with State or Local Government permitting.
4. BPAT normally will complete its environmental review conducted pursuant to the ESA only after the Interconnection Customer's State or local permitting processes are complete.
5. If all other requirements are met, upon completion of the environmental review conducted pursuant to the ESA and approval by BPAT to proceed, BPAT will offer the Interconnection Customer a Construction Agreement, if needed, and an Interconnection Agreement.

H. Material Modifications

1. A request to modify the operating characteristics of an Interconnection Request must be submitted to Interconnection@bpa.gov. This request must provide:
 - a. A detailed description of the proposed modification and all information necessary to support Transmission Provider's analysis of how the proposed modification:
 - i. Results in equal to or better electrical performance;
 - ii. Does not increase the Interconnection Customer's requested interconnection service; and
 - iii. Does not cause any reliability concerns (i.e., material impacts to the transmission system, including impacts to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response).
 - b. A new plant level model of the Generating Facility with a detailed description of the proposed modification, if the new model is different from that submitted for the Interconnection System Impact Study under the original Interconnection Request.
 - i. Plant level models must be submitted in one of the following formats: General Electric Positive Sequence Load Flow (PSLF) Power Flow (EPC), General Electric PSLF Dynamics Data File (DYD), PowerWorld Auxiliary File (AUX).
2. Within 30 Calendar Days of receipt of the request for a modification, BPA will assess the modification request and notify the Interconnection Customer of whether the proposed modification is either:
 - a. A permissible change that is determined not to be a Material Modification; or

- b. A Material Modification.
3. Within 30 Calendar Days after BPA's determination is sent, the Interconnection Customer shall provide BPA notice, in writing, of its desire to either withdraw or proceed with the requested modification. If such notice is not received within 30 Calendar Days after BPA's determination is sent, the proposed modification will be deemed withdrawn.
4. The following are some examples of permissible changes that BPA does not deem to be a Material Modification:
 - a. A modification that is for an advancement in turbine, inverter, or plant supervisory equipment technology and it does not increase the Interconnection Customer's interconnection Capacity (e.g., changing from a type II Wind Turbine to a type 3 Wind Turbine);
 - b. A modification that changes one manufacturer to another but does not change the fuel type and the model selected meets all current industry best practices, FERC/NERC standards and guidelines; and BPA's Technical Requirements for Interconnection (e.g., a solar project developer could request to change to a different manufacturer after receiving bids for inverters, so long as the newly selected inverter meets all ride-through and voltage control requirements).

I. Energy Imbalance Market

1. If a generator wishes to participate in the Energy Imbalance Market, see Energy Imbalance Market (EIM) Business Practice for requirements.

J. Additional Information

1. Policy References
 - a. OATT: Attachment N;
 - b. National Environmental Policy Act (NEPA).
2. Related Business Practices
 - a. New Customer Application Process for Transmission Service
 - b. Generation Integration Services
 - c. Energy Imbalance Market (EIM) Business Practice for requirements.
3. Forms
 - a. Assignment of Transmission Credits
 - b. Standard Small Generator Interconnection Agreement (OATT, Attachment N)