

Generation Integration Services, Version 4

Effective: 4/20/2018

This business practice provides the procedures and requirements for generators operating in the Bonneville Power Administration's (BPA) Balancing Authority Area (BAA) to provision Integration Services from BPA.

Version 4 clarifies that BPA's generation integration requirements apply to certain small generators; refers to a new procedure under development; and addresses formatting issues.

A. Scope of Integration Services

1. There are two arrangements for a generator operating in the BPA BAA that use Integration Services:
 - a. A generator not directly connected to the BPA Transmission System that either impacts BPA Transmission System Operations, or serves load within the service territory of a BPA customer utility; this includes Distributed Energy Resources and energy storage devices connected to a BPA customer utility's distribution system; and
 - b. A generator Interconnected to the BPA Transmission System.
2. The Generator Owner, or its assignee, of a generator operating in the BPA BAA is responsible for complying with all applicable BPA and other regulatory requirements for generation, facility installation, generation estimate submittal, scheduling energy from the facility, responding to dispatch orders, and either purchasing from the BPA BAA or self-supplying the required Control Area Services.
3. The Generator Owner, or its assignee, is further responsible for meeting all pertinent FERC, NERC, and WECC standard reliability requirements.

B. Integration Requirements

1. BPA is developing a separate process for generation integration requests. Until this new process becomes effective, a Generator Owner, or its assignee, must submit an Interconnection Request to the BPA BAA to initiate the process for procuring Integration Services. See BPA's Large Generator Interconnection Procedures and Small Generator Interconnection Procedures on the BPA Transmission Services [Interconnection Portal](#) for further guidance on how an Interconnection Request should be submitted.
2. To procure Integration Services the Generator Owner, or its assignee, must execute a Large Generator Interconnection Agreement (LGIA), Small Generator Interconnection Agreement (SGIA), or Balancing Authority Area Services Agreement (BAASA).
3. To utilize Integration Services in the BPA BAA the Generator Owner must register, as appropriate, with other entities. Examples of other entities include, but are not limited to, FERC, NERC, WECC, and NAESB.
4. Metering, telemetering and SCADA data requirements for generation in the BPA BAA are found in Table 7 of the "Technical Requirements for Interconnection to the BPA Transmission Grid" document posted on [OASIS](#) under Generation Interconnection and on the Transmission Services [Interconnection Portal](#).



5. In certain cases where a utility is connecting a generating or energy storage resource of 3 MW or less nameplate capacity to its distribution system, and the resource will operate in the BPA BAA, and the resource will be used to serve the utility's load, the metering required by BPA should be installed by the utility. Details can be found in the Responsibilities and Technical Requirements Guide for Customer Owned Meters posted on the [Metering Services website](#).
6. Automatic Generation Control (AGC) requirements for generators operating in the BPA BAA can be found in the "Technical Requirements for Interconnection to the BPA Transmission Grid" document posted on [OASIS](#) under Generation Interconnection and on [the Transmission Services Interconnection Portal](#).
7. Generators operating in the BPA BAA are subject to Dispatch Orders as outlined in the Redispatch and Curtailment Procedures and the Failure to Comply business practices.
8. Table 1 below identifies the Scheduling, Generation Estimate Submittal, and Ancillary and Control Area Services requirements for Integration Services in the BPA BAA for the FY2018-19 Rate Schedules, or their successors.
9. The Generator Owner, or its assignee, must comply with other applicable BPA business practices such as those related to, but not limited to, operational controls, scheduling, and Control Area Services.

Table 1 -Requirements for Scheduling, Generation Estimates, and Ancillary and Control Area Services

Requirement or Quantity	G ≤ 200 kW	200 kW < G ≤ 1 MW	1 MW < G < 3 MW	G ≥ 3 MW
Generation Estimate ¹	No	Conditional ²	Yes	Yes
Schedules	No	Conditional ³	Conditional ³	Conditional ³
Generation Imbalance Service	No ⁵	Conditional ⁴	Conditional ⁴	Conditional ⁴
Operating Reserve- Spinning Reserve Service	No ⁵	Yes	Yes	Yes
Operating Reserve- Supplemental Reserve Service	No ⁵	Yes	Yes	Yes

¹ The Generator Owner, or its assignee, is responsible for ensuring a generation estimate is submitted through the Customer Data Entry (CDE) system for the estimated energy output of the resource. The hourly estimate of generation must equal the sum of the transmission schedules. See the Scheduling Transmission Services business practice for the operational requirements for generation estimates.

² An hourly estimate is not required for generation serving local load only. An hourly estimate is required when the energy produced by the resource is for delivery outside the LSE's system. See the Scheduling Transmission Services business practice for the operational requirements for generation estimates.

³ A Transmission Schedule is not required generation serving local load. Transmission Schedules are required when the energy produced by the resource is for delivery outside the LSE's system. See the Scheduling Transmission Services business practice for the operational requirements for submitting scheduled to BPA. Specific requirements for Dynamic Schedules are found in the Dynamic Transfer Operating and scheduling Requirements business practice.

⁴ Generation Imbalance Service is not required for generation serving local load. Generation Imbalance Service is required when the energy produced by the resource is for delivery outside the LSE's system. See the Generation Imbalance Services business practice for the operational requirements.



Variable Energy Resource Balancing Service (Wind & Solar Only)	No ⁵	Yes	Yes	Yes
Dispatchable Energy Resource Balancing Service (Thermal Only)	No ⁵	No	No	Yes

⁵ For generation with a nameplate rating greater than 200kW and located within BPA BAA, BPA revenue metering is required. Refer to BPA Metering Application Guide requirements for Generation Interconnection Metering. For generation over 200 kW and under 3 MW, please contact the host utility's Customer Service Engineer to discuss metering requirements.



C. Use of the Balancing Authority Area Services Agreement (BAASA)

1. A BAASA is required for a generator with a nameplate capacity greater than 200 kW that is not directly interconnected to the BPA Transmission System and does not have any other type of interconnection agreement with BPA but is generating power within the BPA BAA.
2. The Generator Owner is the applicable party to execute the BAASA. Should the Generator Owner assign the operations of a generating plant to a third party Generator Operator, then a stand alone agreement will be needed between BPA, the Generator Owner, and the Generator Operator. The Generator Owner is responsible for obtaining and paying for Control Area Services.
3. For Generator Owners with an executed BAASA, a new Interconnection Request should be made for each new generator as well as for an increase in capacity of existing generators.
 - a. A generator may not operate above the approved capacity.
 - b. If the Generator Owner, or its assignee, desires to increase the approved capacity of its plant above that specified in the BAASA, the owner shall submit an Interconnection Request for the desired increase in capacity. Any increase in approved capacity shall be described in an amended or new BAASA.
 - c. If the Generator Owner, or its assignee intends to change the status or operating configuration of the generator as described in the BAASA, the Generator Owner, or its assignee, shall notify BPA no less than 180 days in advance of any such proposed change. A System Impact Study may need to be performed by BPA, at the customer's expense, to assess the potential impacts of the proposed change on the BPA Transmission System.
4. Unless a generator moves 100% of its generation output out of BPA's BAA via a pseudo- tie or other means of telemetry, the Generator Owner must execute a BAASA, or other agreements as appropriate, with BPA.
 - a. Specific requirements associated with dynamic transfers are found in the Dynamic Transfer Operating and Scheduling Requirements business practice, or successor, and the Dynamic Transfer Capability: Requesting and Awarding Access – Pilot, or successor.

D. Backup Generators

1. Metering, telemetry, generation estimates, schedules, a BAASA or SGIA is not needed when a backup generator is operating during a Local Islanding Event or when it is synched to the BPA Transmission system for test purposes only.
2. Backup Generators that are interconnected to a host utility, but are generating within the BPA BAA, are exempt from submitting an interconnection request.
 - a. Requirements for a Backup Generator for which the Generator Owner wants to directly interconnect to the BPA Transmission System will be evaluated on a case by case basis.
3. No additional agreements are needed for a Backup Generator that is interconnected with a host utility.
 - a. Agreements necessary for a Backup Generator that is directly connecting to the BPA Transmission System will be evaluated on a case by case basis.



E. Additional Information

Related Business Practices & Documents

- Scheduling Transmission Service
- Scheduling Agent
- Redispatch and Curtailment Procedures
- Failure to Comply
- Small and Large Generator Interconnection
- Dynamic Transfer Capability: Requesting and Awarding Access
- Dynamic Transfer Operating and Scheduling Requirements
- Balancing Service Election for Dispatchable Energy Resource Balancing Service (DERBS) and Variable Energy Resource Balancing Service (VERBS)

- Dispatchable Energy Resource Balancing Service (DERBS)
- Operating Reserves
- Energy Imbalance
- Generation Imbalance
- Supplemental Service
- Customer Data Entry (CDE)
- [BPA Metering Application Requirements](#)
- [Technical Requirements for Interconnection to the BPA Transmission Grid](#)

Version History

Please send requests for version history to techforum@bpa.gov.

