



## Transmission Services

### Business Practice

#### Integration Services

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Effective: TBD

This business practice provides the requirements for generators operating in the Bonneville Power Administration Balancing Authority Area to provision Integration Services from the Bonneville Power Administration.

This Business Practice is out for comment through September 19, 2012. Please send comments to [techforum@bpa.gov](mailto:techforum@bpa.gov).

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## A. Definitions

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1. Backup Generator - a standby generating unit with self-start capability that is normally operated in a Local Islanding Event (during a utility power outage) where the generating unit is used to meet customer site load requirements and is not synched to the BPA Transmission Grid, or the unit produces output that is synched to the BPA Transmission Grid for test purposes only. The output from a Backup Generator is not sold or marketed.
2. Generation Serving Local Load - generation dedicated to serving the Load Serving Entity's (LSE) load on the load side of BPA Transmission's Point-of-Delivery, sometimes referred to as "generation behind the meter".
3. Integration Services - the provisioning of scheduling, dispatch, and Control Area Services that are required to support the reliable commercial operation of generation in Bonneville Power Administration's Balancing Authority Area (BPA BAA).
4. Local Islanding Event<sup>1</sup> - the times when the breakers at the ends of the transmission line are open leaving the generator and load that is also tapped off this line isolated from the power system.
5. Other capitalized terms used in this business practice have the meaning of those terms defined in the Large Generator Interconnection Agreement.

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## B. Scope of Integration Services

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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 but that impacts BPA Transmission System Operations, and
  - b. A generator Interconnected to the BPA Transmission System.
2. The Generating 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 purchasing from the BPA BAA or self-supplying required Control Area Services.
3. The Generator Owner, or its assignee, is further responsible for meeting all pertinent FERC/NERC/WECC standard reliability requirements.

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<sup>1</sup> Technical Requirements for Interconnection to the BPA Transmission Grid (4.2.3.4)

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## C. Integration Requirements

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1. A Generator Owner, or its assignee, must submit an Interconnection Request to the BPA BAA to initiate the process for procuring Integration Services.
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 8 of the "Technical Requirements for Interconnection to the BPA Transmission Grid" document posted on OASIS.  
([http://transmission.bpa.gov/business/generation\\_interconnection/documents/tech\\_requirements\\_interconnection.pdf](http://transmission.bpa.gov/business/generation_interconnection/documents/tech_requirements_interconnection.pdf) )
5. 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.  
([http://transmission.bpa.gov/business/generation\\_interconnection/documents/tech\\_requirements\\_interconnection.pdf](http://transmission.bpa.gov/business/generation_interconnection/documents/tech_requirements_interconnection.pdf) )
6. 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.
7. 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 FY2012-13 Rate Schedules, or its successor.<sup>2</sup>
8. 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.

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<sup>2</sup> The Technical Requirements for Interconnection to the BPA Transmission Grid document is being revised for the commercial attributes identified in this business practice for scheduling of non-interconnection resources.

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

Requirement or Quantity	$G < 200 \text{ kW}$	$200 \text{ kW} \leq G < 1 \text{ MW}$	$1 \text{ MW} \leq G \leq 3 \text{ MW}$	$G > 3 \text{ MW}$
Generation Estimate <sup>1</sup>	No	Conditional <sup>2</sup>	Yes	Yes
Schedules	No	Conditional <sup>5</sup>	Conditional <sup>5</sup>	Conditional <sup>5</sup>
Generation Imbalance Service	No <sup>4</sup>	Conditional <sup>3</sup>	Conditional <sup>3</sup>	Conditional <sup>3</sup>
Operating Reserve – Spinning Reserve Service	No <sup>4</sup>	Yes	Yes	Yes
Operating Reserve – Supplemental Reserve Service	No <sup>4</sup>	Yes	Yes	Yes
Variable Energy Resource Balancing Service (Wind & Solar Only)	No <sup>4</sup>	Yes	Yes	Yes
Dispatchable Energy Resource Balancing Service (Thermal Only)	No <sup>4</sup>	No	No	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 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 of the LSE's system. See the Scheduling Transmission Services business practice for the operational requirements for generation estimates.
3. 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 of the LSE's system. See the Generation Imbalance Services business practice for the operational requirements.
4. For generation with a nameplate rating greater than or equal to 200 kW and located in the BPA Balancing Authority Area, BPA revenue metering is required. Refer to the BPA Metering Application Guide requirements for Generation Integration Metering.
5. A Transmission Schedule is not required for Generation Serving Local Load. Transmission Schedules are required when the energy produced by the resource is for delivery outside of the LSE's system. See the Scheduling Transmission Services business practice for the operational requirements for submitting schedules to BPA. Specific requirements for Dynamic Schedules are found in the Dynamic Transfer Operating and Scheduling Requirements business practice.

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#### **D. Use of the Balancing Authority Area Services Agreement (BAASA)**

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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.

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#### **E. Backup Generators**

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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.

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## **F. Variable Energy Resource Balancing Service (VERBS) Billing Factor**

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1. The Ancillary and Control Area Services Rate Schedule provides for the availability of VERBS and the balancing reserve allocation for DSO216 of a wind plant. The following is to further clarify the VERBS rate schedule:
  - a. For each wind plant, or phase of a wind plant, where none of the units are installed on or before the 15th of the month prior to the billing month, but some units have been installed before the start of the billing month, the billing factor will be zero and there will not be a balancing reserve allocation for DSO216 purposes.

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## **G. Related Business Practices & Related Documents**

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- 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 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 Guide
- Technical Requirements for Interconnection to the BPA Transmission Grid