

Customer Supplied Wind Balancing Services Pilot Program, Version 3

Effective: TBD

In September 2010, Bonneville (BPA) initiated its Customer Supplied Wind Balancing Service Pilot Program (Pilot). The Pilot was intended to begin the development of systems and processes that would enable Customers to self supply Wind Balancing Service from their own resources, or to contract for reserves for one or more wind generators. The Pilot included an evaluation of the Pilot, including whether any changes need to be made to the Customer Supplied Wind Balancing Services Pilot Program Business Practice, assuming BPA elected to continue the pilot program.

After completing a review of the Phase 1 of the Pilot, BPA concluded that the Pilot program should be extended through the 2012-2013 Rate Period as Phase 2 of the Pilot program. BPA will be conducting a review to close out Phase 2 which may result in additional proposed changes to this Business Practice intended to support phase 3 of the CSGI Pilot during the FY14-15 Rate Period (October 1, 2013 through September 30, 2015).

In addition, BPA is still in the process of understanding the implications of FERC Order 764 and any impact it will have on roles and responsibilities in terms of self provision which may result in additional proposed changes to this Business Practice.

Transmission Services reserves the right to terminate the program early in accordance with termination provisions included in the Customer Supplied Wind Balancing Services Participant Agreement.

These changes include revising dates, making clear that a short-term market purchase may qualify as an INC Resource under certain conditions when backed by capacity, and clarifying language in several provisions.

BPA will be revising related Business Practices as noted in Section 11 to facilitate CSGI Pilot Program Phase 3.

This Business Practice is out for comment through **August 22, 2012**. Please submit comments to techforum@bpa.gov.

Version 3 includes the following changes:

Definitions:

- Customer Supplied Wind Balancing Services Pilot Agreement: Updated term to Customer Supplied Wind Balancing Services Participant Agreement
- Added Dynamic Transfer DEC Schedule and Market Purchase
- Wind Balancing Service: Updated definition

Section A:

- Deleted step A.1
- Added step A.1.c
- Added A.1.h
- Added "or a march Purchase; and" to step A.1.j

Section C:

- Added step C.1.f
- Added step C.2
- Deleted step C.2.f
- Added step C.13

Section D:

- Deleted “for INC and DEC Resources” from title of section
- Added steps D.3.a-d.ii

Section E:

- Deleted “Imbalance Reserves” from step E.3
- Deleted step E.4

Section F;

- Added step F.4

Definitions

1. Customer Supplied Wind Balancing Services Participant Agreement: The agreement setting forth the rights and obligations of a Self Supplying Entity.
2. Dynamic Transfer DEC Schedule: A Type-Dynamic e-Tag submitted in advance of the operating hour for delivery of power from a Centroid to a DEC Resource when actual generation from a Virtual Wind Facility exceeds scheduled output.
3. Market Purchase: A short-term purchase from a supplier of a resource. A Market Purchase does not consume Dynamic Transfer Capability.
4. Wind Balancing Service: The Variable Energy Resource Balancing Service for Wind Resources described in BPA’s applicable Transmission and Ancillary Services Rate Schedule.

A. Eligibility Criteria

1. An applicant must:
 - a. Execute a Customer Supplied Wind Balancing Services Pilot Agreement
 - b. Identify the Wind Facilities for which it desires to self-supply
 - c. Identify transmission reservations for Wind Facilities for which the Participant desires to self supply
 - d. Certify that it is the operator of those Wind Facilities, or otherwise has the contractual right to cause Wind Facilities to operate pursuant to the applicant’s instructions
 - e. Identify the Wind Balancing Services it desires to self-supply
 - f. Indicate the date on which it will be able to begin self-supplying Wind Balancing Services
 - g. Identify the INC Resources and DEC Resources it intends to rely on for Wind Balancing Services
 - h. Identify its use of market purchases to manage its Netted Station Control Error under this program and such Market Purchases must be backed by or otherwise made available by other deployable INC Resources.
 - i. Designate the entity who will execute a Customer Supplied Wind Balancing Services Pilot Agreement with BPA
 - j. Apply for and receive Dynamic Transfer Capability for each INC Resource and DEC Resource it expects to use to self-supply one or more Wind Balancing Services unless

the INC Resource or DEC Resource is an On Demand Resource or a Market Purchase;
and

- k. Meet all applicable BPA Business Practices and other requirements of the Customer Supplied Wind Balancing Services Pilot Program.

B. Procedures for Identifying Wind Facilities for which the Applicant will Supply Balancing Reserves

1. An entity that wishes to self-supply shall identify the Wind Facilities for which it intends to self-supply by providing for each Wind Facility:
 - a. The name of the Wind Facility
 - b. The nameplate capacity rating
 - c. The interconnection point on BPA's system
 - d. The Owner and Operator of each Wind Facility
 - e. Each transmission contract pursuant to which the Wind Facility operator has a right to schedule power from that Wind Facility; and
 - f. Any other pertinent information requested by BPA Transmission Services.
2. Approval of the identified Wind Facilities by BPA is required prior to their inclusion in the Customer Supplied Wind Balancing Services Pilot Program.

C. Procedures for Qualifying an INC Resource or a DEC Resource to Supply Balancing Reserves

1. An entity that wishes to self-supply from an INC Resource or a DEC Resource shall submit a request in writing to their Transmission Account Executive in which the following information is provided:
 - a. The name of the INC or DEC Resource
 - b. The nameplate capacity rating
 - c. The interconnection point on BPA's system
 - d. The maximum amount of Wind Balancing Services the Self-Supplying Entity expects to supply from that INC or DEC Resource
 - e. Ramp rates and other limitations on the use of that resource to supply Wind Balancing Services
 - f. The requirements of **Section XX** do not apply to a Market Purchase from an INC Resource located outside BPA's Balancing Authority Area.
2. An entity that wishes to self-supply shall supply any other pertinent information required by this Business Practice, Transmission Services Dynamic Scheduling Business Practice, or as may be requested by Transmission Services.
3. BPA will review a request to self-supply from an INC or DEC Resource and provide a written response within 30 days of receipt of the request in the form of:
 - a. Approval of the request as submitted; or
 - b. Offer to approve the request in part, or upon agreement of conditions BPA may propose, or
 - c. Denial of the request and setting forth the basis for the denial and describing the steps, if any, that must be taken to revise the request to increase the likelihood of approval.
5. The entity making the request shall have ten Business days to accept a partial or conditional offer from BPA, or it will be deemed REJECTED.
6. BPA shall designate a Centroid for each Self-Supplying Entity.

7. The Point of Receipt (POR) for an INC Resource located within BPA's Balancing Authority is the point where the INC Resource is connected to BPA's transmission system.
8. The POR for an INC Resource located outside BPA's Balancing Authority is the interchange point with the adjacent Balancing Authority from which power from an INC Resource is scheduled into BPA's Balancing Authority.
9. The POR for a DEC Resource, regardless of location, is the Centroid.
10. The Point of Delivery (POD) for an INC Resource, regardless of location, is the Centroid.
11. The POD for a DEC Resource located within BPA's Balancing Authority is the point where the DEC Resource is connected to BPA's transmission system.
12. The POD for a DEC Resource located outside BPA's Balancing Authority is the interchange point with the adjacent Balancing Authority to which power is scheduled from the Centroid to remove it from BPA's Balancing Authority.
13. With respect to a Market Purchase from within BPA's Balancing Authority, the supplying resource must be approved in advance as provided in [Section XXX](#).

D. Procedures for Submitting Self Supply Schedules

1. Dynamic Schedules
 - a. A reservation is not required to submit a Dynamic Transfer INC or DEC Schedule.
 - b. A Dynamic Transfer INC Schedule or a Dynamic Transfer DEC Schedule submission must comply with all applicable timelines and other requirements for submitting a schedule, except as outlined below:
 - i. A Dynamic Transfer INC or DEC Schedule will bear the designation "SERVICE-BR" ("Balancing Reserve") in the OASIS Reference field of the e-Tag.
 - ii. The energy profile of the dynamic e-Tag will populate the use account.
 - iii. No losses will be assessed to a Dynamic Transfer INC or DEC Schedule.
 - c. The transmission profile for a Dynamic Transfer INC or DEC Schedule may not exceed the Dynamic Transfer Capability allocated to the INC or DEC Resource as set forth in the Balancing Plan.
 - d. For delivery of Balancing Reserves using Dynamic Transfer Capability, the Self-Supplying Entity may use transmission rights it has purchased from BPA for delivery of power from its Wind Facilities comprising the Virtual Wind Facility provided sufficient Dynamic Transfer Capability is available, even though transmission paths used for balancing purposes may differ from those described in the Self-Supplying Entity's transmission contract with BPA.
 - e. BPA will treat each Dynamic Transfer INC or DEC Schedule as a "no charge" schedule for which it will not charge an additional transmission fee or require the Self-Supplying Entity to obtain transmission rights beyond those rights the Self-Supplying Entity has to schedule power from the Wind Facilities comprising the Virtual Wind Facility.
2. On Demand Schedules
 - a. A firm reservation is required to submit a On Demand INC or DEC Schedule.
 - b. An On Demand INC or DEC Schedule submission must comply with all applicable timelines and other requirements for submitting a schedule, except as outlined below:

- i. An On Demand INC or DEC Schedule will bear the designation “-ODB” (“On Demand Balancing”) in the OASIS Reference field of the e-Tag.
- ii. The energy profile of the On Demand e-Tag will populate the use account.

The transmission profile for an On Demand INC or DEC Schedule may not exceed limits specified in the Balancing Plan for the underlying On Demand Resource.

Market Purchases

- a. A Participant that desires to use a Market Purchase as an INC Resource must arrange to supply information in a form acceptable to BPA concerning the amount of INC Resources available each hour.
- b. A Participant that uses a Market Purchase of energy as an INC Resource must maintain documentation for at least one year that the Participant had capacity available to supply reserves in the absence of the Market Purchase.
- c. A Market Purchase must be scheduled on an e-Tag with a NERC priority of “1NS.”.
- d. The right to use Market Purchases to supply balancing may be withdrawn at any time should use of a Market Purchase:
 - i. result in a failure to supply sufficient reserves to stay within applicable metrics; or
 - ii. for a purpose other than balancing a wind error.

E. Amount of Imbalance Reserves a Self-Supplying Entity Must Supply

1. The amount of Imbalance Reserves the Self-Supplying Entity must supply is determined by the Netted Station Control Error of the Wind Facilities comprising the Virtual Wind Facility minus the Regulation and Following Reserves provided by BPA.
2. A Self-Supplying Entity supplying Imbalance Reserves must meet the following performance metrics that BPA will designate for each Self-Supplying Entity and include as a performance requirement in the Self-Supply Pilot Agreement. The Self-Supplying Entity shall comply with any directives issued by BPA in accordance with the Self-Supply Agreement to comply with the performance metrics.
 - a. The amount that the instantaneous Netted Station Control Error may not exceed;
 - b. The amount that the instantaneous Netted Station Control Error may not fall below;
 - c. The amount that the rolling 30 minute average of integrated Netted Station Control Error may not exceed or fall below;
 - d. The amount that rolling 60 minute average of integrated Netted Station Control Error may not exceed or fall below;
 - e. A maximum ramp rate that an INC Resource may not exceed when increasing generation or decreasing load;
 - f. A maximum ramp rate that a DEC Resource may not exceed when decreasing generation or increasing load.
3. A Self-Supplying Entity shall deploy its Virtual Wind Facility DEC Resources and INC Resources in such a manner that the Netted Station Control Error of those resources equals the combined amount of Regulating and Following Reserves BPA is providing within 10 minutes if the total reserve deployment in the BPA Balancing Authority Area exceeds 80% of the reserve set aside and the Netted Station Control Error is contributing to the reserve deployment (Netted Station Control Error and BPA reserve deployment have opposite signs).
4. No financial penalty, other than Failure to Comply charges and/or Persistent Deviation charges, shall be applied during the Customer Supplied Wind Balancing Services Pilot Program for failing to meet these performance metrics for Imbalance Reserves.

5. Failure to Comply charges, if any, will be applied in the same manner as they would apply in the absence of the Customer Supplied Wind Balancing Services Pilot Program.
6. After notice and an opportunity to comment, Transmission Services may change the limits set forth in **Section XX** above to account for changes in the Virtual Wind Facility or to adjust the metric as needed to improve the efficacy of the Customer Supplied Wind Balancing Services Pilot Program.

F. Curtailment Priority for Self Supply Schedules for INC and DEC Resources

1. A Dynamic Transfer INC or DEC Schedule will be given a "1-NS" NERC curtailment priority.
2. Should it be necessary to curtail schedules on a transmission path that is being used or will be used by a Dynamic Transfer INC or DEC Schedule, BPA Transmission Services will curtail the Dynamic Transfer INC or DEC Schedule ahead of any other transmission schedule, including other non-self supply schedules with a "1-NS" NERC curtailment priority.
3. An On Demand INC or DEC schedule will be given a "7-F" NERC curtailment priority.
4. A Market Purchase will be curtailed according to the NERC curtailment priority for the e-tag for the Market Purchase (1NS as referenced in **section XX** above).

G. Compliance with Dispatcher Directives

1. Self-Supplying Entities are subject to Dispatcher directives, including directives issued under Dispatch Standing Order (DSO) No. 216.
2. A Self-Supplying Entity that does not respond appropriately to a Dispatcher directive is subject to a Failure to Comply Penalty.

H. Billing Procedures for a Self Supplying Entity

1. Wind Balancing Service charges will be offset by billing credits for the service components that are self-supplied.
2. BPA Transmission Services shall calculate Generation Imbalance charges, including Persistent Deviation charges, for the Virtual Wind Facility as one project, instead of individually for the Wind Facilities that comprise the Virtual Wind Facility. The charges will apply to the remaining imbalance after taking into account the Balancing Reserves scheduled to and from the Centroid.
3. Generation Imbalance charges, or Energy Imbalance charges, including Persistent Deviation charges, shall be applied to INC or DEC Resources in the same manner as they would apply in the absence of the Customer Supplied Wind Balancing Services Pilot Program, taking into account the Balancing Reserves schedules to and from the Centroid.
4. Unless treated otherwise in this Business Practice, all other rates and charges shall be applied in the same manner as they would in the absence of the Customer Supplied Wind Balancing Services Pilot Program.

I. Managing Contingencies

1. If one of the Wind Facilities comprising a Virtual Wind Facility declares a contingency, for purposes of applying Generation Imbalance charges, the contingency shall be treated as a contingency for the Virtual Wind Facility.

- a. During a contingency, no Generation Imbalance charges will accrue for the Virtual Wind Facility or for any of the Wind Facilities comprising the Virtual Wind Facility.
- b. During a contingency, schedules for the Wind Facility experiencing the contingency will be supported with Contingent Reserves in lieu of self-supply of Balancing Reserves.
2. If the operator of an INC Resource in the BPA Balancing Authority Area supplying Balancing Reserves declares a contingency, no Balancing Reserves may be supplied from that INC Resource in the same hour to the extent of the contingency until the contingency is terminated.
3. If the operator of a DEC Resource supplying Balancing Reserves declares a contingency, Balancing Reserves may be supplied from that DEC Resource in the same hour to the extent actual generation can be reduced, notwithstanding the contingency, until the contingency is terminated.

J. Additional Information
Related Business Practices

- Requesting Transmission Service
- Scheduling Transmission Service
- Generation Imbalance
- Failure to Comply
- Requesting and Awarding Access to Dynamic Transfer Capability
- Dynamic Transfer Operating and Scheduling Requirements
- On Demand Resource Scheduling
- Oversupply Management Protocol

Version History

Version 2	05/31/11 BPA has recently completed its review of the Pilot and concluded that the program should be extended with modest changes to the Pilot. These proposed changes are incorporated into this revised Business Practice. These changes include revising dates, making clear that On Demand Resources may qualify as an INC or DEC Resource, and clarifying language in several provisions.
Version 1	06/17/10 New business practice posted