

Oversupply Management Protocol (OMP)

BPA Transmission Business Practice

Version 11

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This business practice describes the overall implementation of the Oversupply Management Protocol (OMP) including actions that will be taken prior to implementation; implementation and event status notifications; displacement protocol and costs; charges, discounts and penalties.

BPA will implement OMP only as a last resort and after exhausting other available tools. The agency's intent is to use OMP only for the period when it is absolutely necessary.

BPA Policy References

- [Open Access Transmission Tariff \(OATT\)](#): Section 36; Attachment P
- [Transmission Rate Schedules/Provisions](#): Oversupply Rate, Modified Tier 1 Cost Allocations (TOCA) for Oversupply Rate

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

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A. Purpose of Oversupply Management Protocol

1. OMP is designed to ensure the Federal Columbia River Power System (FCRPS) is operated consistently with the “Clean Water Act” and the “Endangered Species Act” obligations, and BPA’s obligations under the “Pacific Northwest Electric Power Planning and Conservation Act,” (under specific hydro and load conditions) and after all available mitigation measures, such as those described in Section 1 of Attachment P of the OATT, have been implemented. When these conditions exist, BPA will issue orders to generators and replace scheduled generation in BPA’s Balancing Authority Area with federal hydropower.

B. Generators Subject to Oversupply Management Protocol

1. All generators with a nameplate of 3 MW or greater generating capacity in the BPA Balancing Authority Area are subject to OMP.

C. Establishing Minimum Generation Levels and Maximum Ramp Rates

1. BPA does not intend for actions taken during an Oversupply event to cause undue hardship or damage to generating resources. To that end, operators/owners of non-Variable Energy Resource (VER) resources within BPA’s Balancing Authority Area are encouraged to establish a minimum generation level and a maximum ramp rate for Oversupply Management. A resource’s minimum generation level will be used to determine Dispatch Orders that may be issued during an Oversupply Management event.
2. BPA, in coordination with the US Army Corps of Engineers and Bureau of Reclamation, establishes minimum generation levels for Federal Generation to minimize total dissolved gas on a system basis. These levels will be implemented as part of the mitigating measures to ensure Federal Generation fully participates in mitigating the system conditions.
3. All generators subject to establishing minimum generation levels & maximum ramp rates:
 - a. A minimum generation level shall be established for all non-VER generators subject to OMP as it is defined in Section B. If no minimum generation level is established pursuant to Section C.4.b, BPA will assume the minimum generation level is zero.
 - b. There are no minimum generation levels or maximum ramp rates for VERs because VERs do not have reliability factors dictating a lowest operating level.
4. Establishing minimum generation levels and maximum ramp rates:
 - a. Minimum generation is an amount achievable within 10-minutes of receiving the Oversupply Management dispatch instruction, taking into account the ramp rates of the resource. The minimum generation level must be a level that is equal to or less than the resource’s schedule or generation estimate and must be equal to or greater than a resource’s declared Pmin (minimum generation limit) when operating in the EIM.

- b. Non-VER generators that expect to have a need to continue operating during an Oversupply Management event may establish a minimum generation level that they cannot operate below. Reliability factors may be considered when minimum generation levels are established in accordance with Section 7 of Attachment P.
- c. Non-VER operators/owners of resources within BPA's Balancing Authority Area shall notify BPA of the minimum generation level via the Customer Data Entry (CDE) system that is currently used to submit generation forecasts.
 - i. Minimum generation values are expected to be submitted as 24 hourly values for each day and may be modified until 57 minutes before the operating hour for inclusion in that Operating Hour.
 - ii. Customers are allowed to enter minimum generation data for the next seven (7) Calendar Days. Customers must input minimum generation values for the Current+7 Calendar Days for CDE to copy the value forward. Minimum Generation values for the Current+7 Calendar Days will be copied forward until new values are submitted.
 - iii. Generators that provide a minimum generation level in accordance with Section C.4.b may follow their maximum ramp rates when following a Dispatch Order to reduce to their minimum generation.

D. Submitting Cost Information for Oversupply Management Protocol

1. In accordance with Attachment P of BPA's OATT, a Customer may submit the cost of displacing each of its generating facilities with federal hydroelectric energy, and supporting data and documentation of such costs, to an independent evaluator selected by BPA. The costs and supporting data and documentation can be submitted here for validation: <https://oversupply.accionpower.com>. Using the submitted cost information, the independent evaluator will build a Least-Cost Displacement Cost Curve (Cost Curve), which will be the basis for displacing generators during OMP events. See Section I.
2. Generators have an opportunity to update their displacement costs with supporting data and documentation at any time, and the updated costs will take effect the first day of the second month after submission.
3. If Customers do not submit displacement costs and supporting data and documentation for specific generating facilities, the displacement cost for these generating facilities shall be deemed to be \$0/MWh in alignment with Attachment P.3.a.

E. Oversupply Management Actions Prior to Implementing Oversupply Management Protocol

1. BPA will take all available actions that BPA determines will reduce or avoid the need for displacement, such as those actions listed in Section 1 of Attachment P.
2. In accordance with Section 1.b of Attachment P, BPA may implement mandatory waivers, or seek volunteers for waivers, of physical in-kind real power loss return

obligations before a possible OMP event in an effort to reduce or avoid the need for generation displacement. Waiver of physical in-kind real power loss return obligations for an hour does not waive the obligation to financially settle any loss imbalance in accordance with the Real Power Loss Return Business Practice and Transmission Rate Schedules. Loss imbalance will continue to be financially settled for hours when waivers of physical in-kind real power loss return obligations are in effect.

- a. Mandatory waivers of physical in-kind real power loss return obligations will be cleared from the OATI Loss Module/CDE by 5 a.m. of the Western Electricity Coordinating Council Preschedule Trading Day.
 - i. Mandatory waivers of loss obligations will be, at a minimum, for the Operating Hour and could be issued for multiple hours.
 - ii. Mandatory waivers of loss obligations will be for the full amount of Real Power Losses that must be returned through the physical delivery of in-kind power.
 - iii. Mandatory waivers of loss obligations will remain in effect until the specified Operating Hour is over.
 - iv. Customers are not to schedule real power loss returns to BPA when the loss obligation has been waived. Real power loss returns scheduled for waived hours will be curtailed for those hours.
- b. BPA Power Services Traders may also proactively contact Customers to waive loss return schedules.
 - i. BPA Power Services Traders will work with the Customer to determine MWs and hours for the losses to be waived.
 - ii. BPA Power Services Traders will verify with the Customer that the e-Tags have not been scheduled for the days/hours being waived.
 - iii. If a loss return e-Tag already exists, the Customer is required to reduce the e-Tags to reflect the In-Kind Real Power losses waived. All e-Tags must be adjusted down prior to T-57 (XX:03) for the following scheduling hour.
 - iv. Loss Return Providers who agree to waive their losses are required to send an email to BPAMarketing@BPA.GOV to memorialize the agreement stating the following:
 1. Customer for whom losses are being waived
 2. Date(s) and Hour(s)
 3. MWs waived

F. Curtailment of E-Tags

1. All generators are subject to Curtailment of e-Tags at all times for system reliability and other reasons as described in the Curtailment and Redispatch Business Practice. If the Curtailment reduces the sum of remaining e-Tags originating at the generator to a level that is less than the minimum generation level then the generator must fully comply with the Curtailment and reduce generation regardless of the established minimum generation level for OMP.

G. Notification that Oversupply Management Protocol is Imminent

1. Transmission Dispatch will make a posting with the category of “Curtailment” on the Notices page of BPA Transmission Services Open Access Same-Time Information System (OASIS) that implementing OMP is imminent. The posting may include the expected duration of the OMP event. The message will read, in part:
 - a. Subject: Oversupply Management Imminent
 - b. Message: Oversupply Management Imminent
2. Resources should continue to schedule their forecast power output, including scheduled loss returns for the hour when an OMP event is imminent.
3. When an OMP event is in effect resources should continue to schedule their forecasted power output, but waived loss returns should not be scheduled.

H. Allocation of Oversupply Management Protocol Quantity

1. BPA Hydro Operations will determine the need to implement OMP and will determine the amount of generation reduction required for each hour during the event. When OMP is implemented, schedules from the generators will remain intact, but generation must be reduced.
2. BPA will use the “Cost Curve” to displace generation located in BPA’s Balancing Authority Area. The “Cost Curve” will be based on the cost of displacement for each facility, and includes both non-VER and VER generators. BPA will displace generation in order of cost, from the least-cost facility to the highest- cost facility, until the required displacement quantity as determined by BPA is achieved. If the highest-cost facility that BPA displaces in an hour to achieve the required displacement quantity has the same cost as one or more other facilities, BPA will displace all such facilities on a pro-rata basis. The pro-rata reduction for each facility is calculated by: $(\text{Sum of Schedules for the generator}) / (\text{Sum of Schedules for the group}) * \text{required reduction}$.

I. Notification that Oversupply Management Protocol is in Effect

1. BPA Transmission Dispatch will make a posting with the category of ‘Curtailment’ on the Notices page of BPA’s Transmission Services’ OASIS that the OMP is in effect. The message will read, in part:
 - a. Subject: Oversupply Management Ongoing.
 - b. Message: BPA is implementing Oversupply Management Protocols.
2. BPA will post information on the OMP on the publicly-accessible [VER Generation & Total Load in The BPA Balancing Authority webpage](#) with near-real time updates.
 - a. The “BPA Balancing Authority Total Wind and Solar (Generation and Basepoint)” link will provide information on the total amount of the OMP reduction.

- b. The “BPA EIM Status, Operational Controls for Balancing Reserves State and Oversupply Mitigation State” link will provide information on the OMP state.
3. Electronic notification will be sent to generators to indicate that OMP is in effect.
 - a. During the implementation of OMP, Dispatch Orders will be communicated via iCRS Generation Advisor and generators will receive the alarms and Limit Targets.
 - i. A message of “OMP: LIMIT GENERATION” and “OMP: RAMP TO NEW LIMITS” will be indicated on iCRS Generation Advisor with the alarm that OMP is in effect.
 - ii. To be in compliance with the Dispatch Order, generators have 10 minutes to reduce (and maintain) generation below the Limit Target plus the greater of 2% of the nameplate capacity of the generating facility or 4 MW.
 - iii. The Limit Target will be at or below the generator’s schedule for the scheduling intervals for which OMP is in effect.
 - iv. In the event there are multiple Dispatch Orders within an Operating Hour, a generator must follow the lowest limit order in effect. Specific questions about a Dispatch Order should be directed to BPA Transmission Dispatcher.
 - v. During the “OMP: RAMP TO NEW LIMITS” period, VERs will have their Limit Targets modified in a linear fashion during the first five (5) minutes of the hour at the beginning of OMP and during the last five (5) minutes at the end of OMP, while all other generators will get a step change to the Limit Targets at the top of the hour for both the start and stop of OMP.
 1. If a generation resource has a reduction in scheduled generation during the hour below the Limit Target, the resource is expected to reduce output with the schedule change and the Limit Target will decrease with the schedule change, but the “OMP: RAMP TO NEW LIMITS” period may not occur.
 - b. Generators and their agents may request to receive a notice via email indicating that OMP is in effect. Generators must reduce generation to minimum levels or to the Limit Target provided via iCRS Generation Advisor or other electronic signal. Requests to be added to the email notices may be made to their BPA Transmission Account Executive.
 - c. VERs will also receive notification that OMP is in effect via the same electronic signal they currently receive for an Operational Controls for Balancing Reserves (OCBR). Generators receiving this signal via ICCP or a Remote Telemetry Unit (RTU) will receive the OMP alarm and generation Limit Target directly.
 - i. To be in compliance with the Dispatch Order, generators have 10 minutes to reduce (and maintain) generation below the Limit Target plus the greater of 2% of the nameplate capacity of the generating facility or 4 MW.
 - ii. The Limit Target will be at or below the generator’s schedule for the scheduling intervals for which OMP is in effect.

- iii. In the event there are multiple Dispatch Orders within an Operating Hour, a generator must follow the lowest limit order in effect. Specific questions about a Dispatch Order should be directed to the BPA Generation Dispatcher.
- iv. During the first and last five minutes of the hour, VERs will have their Limit Targets modified in a linear fashion for both the start and stop of OMP.
 - 1. If a VER has a reduction in scheduled generation during the hour below their Limit Target, the resource is expected to reduce output with the schedule change and the Limit Target will decrease with the schedule change.
- 4. Base Schedules submitted by BPA at T-40 to the EIM for generation resources will reflect any OMP related displacement of generation resources. Additionally, Dispatch Operating Targets (DOT) within an hour where OMP is active should be limited to equal or less than a resource's schedule (or generation estimate).
- 5. Customers that net their facilities for OCBR response purposes may net their facilities for an OMP response. However, BPA will compensate the netted facilities based on the cost curve for the OMP displacement amount allocated to specific facilities within the netted group.

J. Notification that an Oversupply Management Event has Ended

- 1. If system conditions improve to the point where the OMP is no longer required, the alarm status in iCRS Generation Advisor will revert to normal functionality for OCBR limits. This will be preceded by an informational message of "OMP: PREPARE FOR NORMAL" during the ramp. This information will also be visible on the publicly accessible [VER Generation & Total Load in The BPA Balancing Authority webpage](#).
- 2. When system conditions improve to the point where the OMP is no longer required, those on the email list will receive a notice that OMP has concluded. Generators may return to their scheduled operation.
- 3. When system conditions improve to the point where the OMP is no longer required, Transmission Dispatch will make a posting with the category of "Curtailment" on the Notices page of BPA's Transmission OASIS that OMP is over. The message will read:
 - a. Subject: Oversupply Management Concluded.
 - b. Message: BPA has concluded implementation of Oversupply Management Protocols.

K. Adjustments to Energy & Generation Imbalance Accounting During an Oversupply Event

- 1. For the hours when the OMP is in effect, the Generation Imbalance accounting, including for Persistent Deviation and the Intentional Deviation penalty charge, is

disabled for all generating Customers that are issued an order to reduce generation below scheduled output for the OMP.

2. For the hours when the OMP is in effect, if a Load Serving Entity's (LSE) behind the meter resource is ordered to reduce generation to minimum generation level, BPA will use behind the meter resource's generation estimates at T-57, before OMP displacement, for use in calculating LSE Energy Imbalance billing. This will ensure OMP displacement to those behind the meter resources does not impact LSE Energy Imbalance billing. BPA will serve the increased load with federal hydropower.

L. Short Distance Discount for Displaced or Redispatched Resources

1. When the OMP is imminent or in effect, Network (NT) Customers, that have resources that qualify for a Short-Distance Discount and reduce generation in response to requests from Power Services or a Dispatch Order from Transmission Services, will continue to receive an adjustment to their NT base charge as if the generator was serving the load.
2. When OMP is imminent or in effect, Point-to-Point (PTP) reservations that would otherwise receive the PTP Short-Distance Discount will continue to receive the discount when the generator for the POR of the reservation reduces generation in response to requests from Power Services or a Dispatch Order from Transmission Services.

M.Adjustments to DERBS Charges

1. For the hours when the OMP is in effect and a resource subject to Dispatchable Energy Resource Balancing Service (DERBS) is issued an order to reduce generation to minimum generation level, the DERBS charge for that hour for that generator will not be assessed.

N. Generating Customer's Operating Reserve Obligations During an Oversupply Management Event

1. Generating Customers are responsible for the Operating Reserve Obligation for the schedules they submit during an OMP event.

O.Failure to Comply

1. Generating Customers that do not comply with Transmission Dispatch Orders during and including OMP are subject to Failure to Comply Penalty Charge.