

Market-based rates, will not be paid above their cost-based bid for the Ancillary Service concerned even if the relevant market clearing price is higher.

2.5.7.4 Bidding and Self-Provision of Ancillary Services

The ISO will procure Ancillary Services in accordance with this ISO Tariff, and the applicable ISO Protocols.

2.5.7.4.1 Scheduling Coordinators may bid or self-provide Ancillary Services from resources located within the ISO Control Area.

2.5.7.4.2 Scheduling Coordinators may bid or self-provide external imports of Spinning Reserve, Non-Spinning Reserve or Replacement Reserve from resources located outside the ISO Control Area, where technically feasible and consistent with WSCC criteria; and provided that such Scheduling Coordinators have certified to the ISO their ability to deliver the service to the point of interchange with the ISO Control Area (including with respect to their ability to make changes, or cause such changes to be made, to interchange schedules during any interval of a Settlement Period at the discretion of the ISO).

2.5.7.4.3 Except as provided in section 2.5.7.4.4, Scheduling Coordinators cannot bid or self-provide external imports of Regulation Reserve from resources located outside the ISO Control Area.

2.5.7.4.4 Scheduling Coordinators may utilize transmission service under Existing Contracts to self-provide Regulation (consistent with the applicable ISO Protocols), Spinning Reserve, Non-Spinning Reserve or Replacement Reserve from resources located outside the ISO Control Area, where technically feasible, consistent with WSCC standards.

2.5.7.4.5 Scheduling Coordinators' bidding or self-provision of Ancillary Services according to this section 2.5.7.4 shall be consistent with the ISO Protocols.

2.5.8 The Bidding Process.

The ISO shall operate a competitive Day-Ahead and Hour-Ahead market to procure Ancillary Services. It shall purchase Ancillary Services capacity at least cost to End-Use Customers consistent with maintaining system reliability. Any Scheduling Coordinator representing Generating Units, Loads or external imports of System Resources may bid into the ISO's Ancillary Services market provided that it is in possession of a current certificate for the Generating Units or Loads concerned.

2.5.9 Provision of System Information to Market Participants.

By 6:00 p.m., two days prior to the Trading Day, the ISO shall make available to Scheduling Coordinators general system information including those items of

2.5.15 The Spinning Reserve Auction

Bid Information. If the bid is for the provision of Spinning Reserve from a Generating Unit, each Scheduling Coordinator j must submit the following information for each Generating Unit i for each Settlement Period t of the following Trading Day:

- (a) bidder name/Identification Code;
- (b) resource identification (name and Location Code);
- (c) the date for which the bid applies;
- (d) maximum operating level (MW);
- (e) minimum operating level (MW);
- (f) ramp rate (MW/min);
- (g) MW additional capability synchronized to the system, immediately responsive to system frequency, and available within 10 minutes (Cap_{ijtmax}) for Generating Unit i , from Scheduling Coordinator j , for Settlement Period t ;
- (h) bid price of capacity reserved ($CapRes_{ijt}$ (\$/MW));
- (i) bid price of Energy output from reserved capacity ($EnBid_{ijt}$ (\$/MWh)).

If the bid is for the provision of Spinning Reserve from an external import of a System Resource, each Scheduling Coordinator j must submit the following information for each external import of a System Resource i for each Settlement Period t of the following Trading Day:

- (a) bidder name/Identification Code;
- (b) the date for which the bid applies;
- (c) ramp rate if applicable (MW/Min);
- (d) MW additional capability synchronized to the system, immediately responsive to system frequency and available at the point of interchange with the ISO Control Area, within 10 minutes (Cap_{ijtmax}) of the ISO calling for the external import of System Resource i , from Scheduling Coordinator j , for Settlement Period t ;
- (e) bid price of capacity reserved ($CapRes_{ijt}$ (\$/MW));
- (f) bid price of Energy output from reserved capacity ($EnBid_{ijt}$ (\$/MWh)).

Bid Evaluation. Based on the quantity and location of the system requirements, the ISO shall select the Generating Units and external imports of System Resources with the bids which minimize the sum of the total bids of the Generating Units and external

imports of System Resources selected subject to two constraints:

- (a) the sum of the selected bid capacities must be greater than or equal to the required Spinning Reserve capacity; and
- (b) each Generating Unit's or external import's bid capacity must be less than or equal to that Generating Unit's or external import's ramp rate times 10 minutes.

The total bid for each Generating Unit or external import of a System Resource is calculated by multiplying the capacity reservation bid price by the bid capacity.

Thus, subject to any locational requirements, the ISO will select the winning Spinning Reserve bids in accordance with the following criteria:

$$\text{Min} \sum_{i,j} \text{Totalbid}_{ijt}$$

Subject to

$$\sum_{i,j} \text{Cap}_{ijt} \geq \text{Requirement}_t$$

$$\text{Cap}_{ijt} \leq \text{Cap}_{ijt} \text{max}$$

Where

$$\text{TotalBid}_{ijt} = \text{Cap}_{ijt} * \text{CapRes}_{ijt}$$

Requirement_t = the amount of Spinning Reserve capacity required

Price Determination. The price payable to Scheduling Coordinators for Spinning Reserve capacity made available in accordance with the ISO's Ancillary Services schedules shall, for each Generating Unit or external import of a System Resource concerned be the zonal market clearing price for Spinning Reserve calculated as follows:

$$P_{sp_{xt}} = MCP_{xt}$$

Where the zonal market clearing price (MCP_{xt}) for Spinning Reserve is the highest priced winning Spinning Reserve capacity bid in Zone X based on the capacity reservation bid price, i.e.:

$$MCP_{xt} = \text{Max}(\text{CapRes}_{ijt}) \text{ in zone } x \text{ for Settlement Period } t$$

The ISO's auction does not compensate a Scheduling Coordinator for the minimum Energy output of Generating Units or System Resources bidding to provide Spinning Reserve. Therefore, any minimum Energy output associated with Spinning Reserve selected in the ISO's auction is the responsibility of the Scheduling Coordinator selling the Spinning Reserve.

2.5.16 The Non-Spinning Reserve Auction

Bid information. If the bid is for the provision of Non-Spinning Reserve from a Generating Unit, each Scheduling Coordinator j must submit the following information for each Generating Unit i for each Settlement Period t of the following Trading Day:

- (a) bidder name/Identification Code;
- (b) Generating Unit identification (name and Location Code);
- (c) the date for which the bid applies;
- (d) maximum operating level (MW);
- (e) minimum operating level (MW);
- (f) ramp rate (MW/Min);
- (g) the MW capability available within 10 minutes ($Cap_{ijt}max$);
- (h) the bid price of the capacity reserved ($CapRes_{ijt}(\$/MW)$);
- (i) time to synchronization following notification (min);
- (j) the bid price of the Energy output from the reserved capacity ($EnBid_{ijt}(\$/MWh)$).

If the bid is for the provision of Non-Spinning Reserve from an external import of a System Resource, each Scheduling Coordinator j must submit the following information for each external import of a System Resource i for each Settlement Period t of the following Trading Day:

- (a) bidder name/Identification Code;
- (b) the date for which the bid applies;
- (c) ramp rate if applicable (MW/Min);
- (d) the MW capability available at the point of interchange with the ISO Control Area, within 10 minutes ($Cap_{ijt}max$) of the ISO calling for the external import of System Resource i , from Scheduling Coordinator j , for Settlement Period t ;
- (e) bid price of capacity reserved ($CapRes_{ijt}(\$/MW)$); and
- (f) bid price of Energy output from reserved capacity ($EnBid_{ijt}(\$/MWh)$).

If the bid is for the provision of Non-Spinning Reserve from a Load located within the ISO Control Area, each Scheduling Coordinator j must submit the following information for each Load i for each Settlement Period t of the following Trading Day:

- (a) bidder name/Identification Code;
- (b) Load identification name and Location Code;
- (c) the date for which the bid applies;
- (d) the Demand reduction available within 10 minutes ($Cap_{ijt}max$);
- (e) time to interruption following notification (min);
- (f) maximum allowable curtailment duration (hr);
- (g) the bid price of the capacity reserved ($CapRes_{ijt}(\$/MW)$);
- (h) the bid price for Demand reduction from the reserved capacity ($EnBid_{ijt}(\$/MWh)$).

Bid Evaluation. Based on the quantity and location of the system requirements, the ISO shall select the Generating Units, Loads or external imports of System Resources with the bids which minimize the sum of the total bids of the Generating Units, Loads or external imports of System Resources selected subject to two constraints:

- (a) the sum of the selected bid capacities must be greater than or equal to the required Non-Spinning Reserve capacity; and
- (b) each Generating Unit's, Load's or external import's bid capacity must be less than or equal to that Generating Unit's, Load's or external import's ramp rate (or time to interruption in the case of a Load offering Demand reduction) times the difference between 10 minutes and the time to synchronize in the case of a Generating Unit, or to interruption in the case of a Load.

The total bid for each Generating Unit, Load or external import of System Resource is calculated by multiplying the capacity reservation bid by the bid capacity.

Thus subject to any locational requirements, the ISO will accept the winning Non-Spinning Reserve bids in accordance with the following criteria:

$$\text{Min} \sum_{i,j} \text{Totalbid}_{ijt}$$

Subject to

$$\sum_{i,j} Cap_{ijt} \geq Requirement_t$$

$$Cap_{ijt} \leq Cap_{ijt}max$$

Where

$$TotalBid_{ijt} = Cap_{ijt} * CapRes_{ijt}$$

$Requirement_t$ = the amount of Non-Spinning Reserve capacity required

Price Determination. The price payable to Scheduling Coordinators for Non-Spinning Reserve capacity made available in accordance with the ISO's Ancillary Services schedules shall for each Generating Unit, Load or external import of a System Resource concerned be the zonal market clearing price for Non-Spinning Reserve calculated as follows:

$$P_{nonsp_{xt}} = MCP_{xt}$$

Where the zonal market clearing price (MCP_{xt}) for Non-Spinning Reserve is the highest priced winning Non-Spinning Reserve bid in Zone X based on the capacity reservation bid price, i.e.:

$$MCP_{xt} = Max(CapRes_{ijt}) \text{ in zone } x \text{ for Settlement Period } t.$$

2.5.17 The Replacement Reserve Auction.

Bid Information. If the bid is for the provision of Replacement Reserve from a Generating Unit, each Scheduling Coordinator j must submit the following information for each Generating Unit i for each Settlement Period t of the following Trading Day:

- (a) bidder name/Identification Code;
- (b) Generating Unit identification (name and Location Code);
- (c) the date for which the bid applies;
- (d) maximum operating level (MW);
- (e) minimum operating level (MW);
- (f) ramp rate (MW/Min);
- (g) the MW capacity available within 60 minutes (Cap_{ijtmax});
- (h) the bid price of the capacity reserved ($CapRes_{ijt}$ (\$/MW));
- (i) time to synchronize following notification (min);
- (j) the bid price of the Energy output from the reserved capacity ($EnBid_{ijt}$ (\$/MWh)).

If the bid is for the provision of Replacement Reserve from an external import of a System Resource, each Scheduling Coordinator j must submit the following information for each external import of a System Resource i for each Settlement Period t of the following Trading Day:

- (a) bidder name/Identification Code;
- (b) the date for which the bid applies;
- (c) ramp rate if applicable (MW/Min);
- (d) the MW capability available at the point of interchange with the ISO Control Area, within 60 minutes (Cap_{ijtmax}) of the ISO calling for the external import of System Resource i , from Scheduling Coordinator j , for Settlement Period t ;
- (e) bid price of capacity reserved ($CapRes_{ijt}$ (\$/MW)); and
- (f) bid price of Energy output from reserved capacity ($EnBid_{ijt}$ (\$/MWh)).

If the bid is for the provision of Replacement Reserve from a Load located within the ISO Control Area, each Scheduling Coordinator j must submit the following information for each Load i for each Settlement Period t of the following Trading Day:

- (a) bidder name/Identification Code;
- (b) Load identification (name and Location Code);
- (c) the date for which the bid applies;
- (d) the Demand reduction available within 60 minutes (Cap_{ijt} (MW));
- (e) time to interruption following notification (min);
- (f) maximum allowable curtailment duration (hr);
- (g) the bid price of the capacity reserved ($CapRes_{ijt}$ (\$/MW));
- (h) the bid price of the Demand reduction from the reserved capacity ($EnBid_{ijt}$ (\$/MWh)).

Bid Evaluation. Based on the quantity and location of the system requirements, the ISO shall select the Generating Units, Loads or external imports of System Resources with the bids which minimize the sum of the total bids of the Generating Units, Loads or external imports of System Resources selected subject to two constraints:

- (a) the sum of the selected bid capacities must be greater than or equal to the required Replacement Reserve capacity; and

- (b) each Generating Unit's, Load's or external import's bid capacity must be less than or equal to that Generating Unit's, Load's or external import's ramp rate (or time to interruption in the case of a Load offering Demand reduction) times the difference between 60 minutes and the time to synchronize in the case of Generating Unit, or to interruption in the case of Load.

The total bid for each Generating Unit, Load or external import of a System Resource is calculated by multiplying the capacity reservation bid price by the bid capacity.

Thus, subject to any locational requirements, the ISO will select the winning Replacement Reserve bids in accordance with the following criteria:

$$\text{Min} \sum_{i,j} \text{Totalbid}_{ijt}$$

Subject to

$$\sum_{i,j} \text{Cap}_{ijt} \geq \text{Requirement}_t$$

$$\text{Cap}_{ijt} \leq \text{Cap}_{ijt} \text{max}$$

Where

$$\text{TotalBid}_{ijt} = \text{Cap}_{ijt} * \text{CapRes}_{ijt}$$

Requirement_t = the amount of Replacement Reserve capacity

Price Determination. The price payable to Scheduling Coordinators for Replacement Reserve capacity made available in accordance with the ISO's Ancillary Services schedules shall, for each Generating Unit, Load or external import of a System Resource, be the zonal market clearing price for Replacement Reserve calculated as follows:

$$\text{PRepRes}_{xt} = \text{MCP}_{xt}$$

Where the zonal market clearing price (MCP_{xt}) for Replacement Reserve is the highest priced winning Replacement Reserve bid in Zone X based on the capacity reservation bid price, i.e.:

$MCP_{xt} = \text{Max}(CapRes_{ijt})$ in zone x for Settlement Period t

2.5.18. Voltage Support.

As of the ISO Operations Date, the ISO will contract for Voltage Support with the owners of Reliability Must-Run Units. Payments for public utilities under the FPA shall be capped at the FERC authorized cost based rates unless and until FERC authorizes different pricing. The ISO shall pay owners of Reliability Must-Run units for long term Voltage Support through their Scheduling Coordinators.

In addition, any Participating Generator who is producing Energy shall, upon the ISO's specific request, provide reactive energy output outside the Participating Generator's Voltage support obligation defined in Section 2.5.3.4.

The ISO shall select Participating Generator's Generating Units which have been certified for Voltage Support to provide this additional Voltage Support. Subject to any locational requirements, the ISO shall select the Generating Units from a computerized merit order stack to back down to produce additional Voltage Support in each location where Voltage Support is needed.

ASRP 4.4.1 Dynamic Scheduling of Regulation from External Resources

Scheduling Coordinators are allowed to self-provide their Regulation obligation in whole or in part from resources located outside the ISO Control Area by dynamically scheduling such use of existing transmission service rights under Existing Contracts, if it can be demonstrated that the control function will use existing computer links (either directly or through existing utility EMS computers) to provide this function

ASRP 4.5 Standard for Regulation; Procurement

ASRP 4.5.1 Procurement of Non Self-Provided Regulation

Regulation necessary to meet ISO requirements not met by self-provided Regulation will be procured by the ISO as described in the ISO Tariff.

ASRP 4.5.2 Certification and Testing Requirements

Each Generating Unit and Generating Units which an EOE intends to include in any System Unit used to bid regulation or used to self-provide Regulation must have been certified and tested by the ISO using the process defined in Appendix A to this Protocol.

ASRP 4.5.3 Procurement as of Operations Date

The ISO will procure, with the exception of ASRP 4.4.1, Regulation only from providers with Generating Units connected to and operating within the ISO Control Area.

ASRP 4.5.4 Self Provision of Regulation

Scheduling Coordinators may not self provide Regulation from resources outside the ISO Control Area except under Existing Contracts as described in Section 4.4.1.

ASRP 5 OPERATING RESERVE STANDARDS

The ISO needs, as a minimum, Operating Reserve, consisting of Spinning Reserve and Non-Spinning Reserve, sufficient to meet WSCC MORC. The Operating Reserve requirement shall be equal to (a) 5% of the Demand (except the Demand covered by firm purchases from outside the ISO Control Area) to be met by Generation from hydroelectric resources, plus 7% of the Demand (except the Demand covered by firm purchases from

ASRP 5.3 Standard for Spinning Reserve: Performance

ASRP 5.3.1 Spinning Reserve Capability

Each Generating Unit or external import of a System Resource scheduled to provide Spinning Reserve must be capable of converting the full capacity reserved to Energy production within ten minutes after the issue of the Dispatch instruction by the ISO, and of maintaining that output or scheduled interchange for at least two hours or, if earlier, until such time as the ISO can Dispatch additional resources to permit the Generating Unit to return to its scheduled Set Point or to permit the Energy schedule of the external import to be returned to zero for the current Settlement Period or such other level directed by an ISO Dispatch instruction.

ASRP 5.3.2 Availability

Each Participating Generator shall ensure:

- (a) that its Generating Units scheduled to provide Spinning Reserve are available for Dispatch throughout the Settlement Period for which it has been scheduled; and
- (b) that its Generating Units scheduled to provide Spinning Reserve are responsible to frequency deviations throughout the Settlement Period for which they have been scheduled.

ASRP 5.4 Standard for Non-Spinning Reserve Performance

ASRP 5.4.1 Non-Spinning Reserve Resources

Non-Spinning Reserve may be provided by, among others, the following resources:

- (a) Demand which can be reduced by Dispatch;
- (b) interruptible exports;
- (c) on-demand rights from other entities or Control Areas;
- (d) off line Generating Units qualified to provide Non-Spinning Reserve; and
- (e) external imports of System Resources.

ASRP 5.4.2 Non-Spinning Reserve Capability

Each resource providing Non-Spinning Reserve must be capable of converting the full capacity reserved to Energy production within ten minutes after the issue of the Dispatch instruction by the ISO, and of maintaining that output for at least two hours, or, if earlier, until such time as the ISO can Dispatch additional resources to permit the resource to return to its scheduled Set Point or operating level for the current Settlement Period or such other level directed by an ISO Dispatch instruction.

operating level within ten minutes after issue of the Dispatch instruction.

ASRP 5.7 Standard for Non-Spinning Reserve: Control

Each provider of Non-Spinning Reserve must be capable of receiving a Dispatch instruction within one minute from the time the ISO Control Center elects to Dispatch the Non-Spinning Reserve resource and must ensure that its resource can be at the Dispatched operating level or condition within ten minutes after issue of the Dispatch instruction.

ASRP 5.8.2 Procurement Not Limited to ISO Control Area

The ISO will procure Spinning and Non-Spinning Reserves from Generating Units connected to and operating within the ISO Control Area and external imports of System Resources.

ASRP 5.8.3 Spinning Reserve Certification and Testing Requirements

Spinning Reserve may only be provided from

- (1) Generating Units;
- (2) System Resources from external imports;
- (3) or Generating Units which an EOE intends to include in any System Unit

which have been certified and tested by the ISO using the process defined in Appendix B to this Protocol.

ASRP 5.8.4 Non-Spinning Reserve Certification and Testing Requirements

Non-Spinning Reserve may only be provided from resources including

- (1) Loads;
- (2) Generating Units;
- (3) System Resources; and
- (4) Generating Units which an EOE intends to include in any System Unit

which have been certified and tested by the ISO using the process defined in Appendix C to this Protocol.

ASRP 5.8.5 Self-Provision of Operating Reserve

Scheduling Coordinators may self provide Spinning and Non-Spinning Reserves from resources located outside the ISO Control Area.

Earlier, until such time as the ISO can Dispatch additional resources to permit the Replacement Reserve resource to return to its scheduled Set Point or operating level for the current Settlement Period or such other level direct by an ISO Dispatch instruction.

ASRP 6.2.3 Resources already Providing Ancillary Service

Replacement Reserve may be supplied from resources already providing another Ancillary Service, such as Spinning Reserve, but only to the extent that the ability to provide the other Ancillary Service is not restricted in any way by the provision of Replacement Reserve. The sum of Ancillary Service capacity supplied by the same resource cannot exceed the capacity of said resource.

ASRP 6.3 Scheduling Coordinator's Obligation for Replacement Reserve

Schedule Coordinator's Obligation for Replacement Reserve for each Settlement Period of the Day-Ahead Market and for each Hour-Ahead Market in each zone shall be based upon the ratio of the Demand scheduled by each Scheduling Coordinator in each identified Zone for that Settlement Period to the total scheduled Demand for that Settlement Period in that Zone.

ASRP 6.4 Standard for Replacement Reserve: Control

Each provider of Replacement Reserve must be capable of receiving a Dispatch instruction within one minute from the time the ISO Control Center elects to Dispatch the Replacement Reserve resource and must ensure that its resource can be at the Dispatched operating level or condition within sixty minutes after issue of the Dispatch instruction.

ASRP 6.5 Standard for Replacement Reserve: Procurement

ASRP 6.5.1 Procurement of Non Self-Provided Replacement Reserve

Replacement Reserve necessary to meet ISO requirements not met by self-provided Replacement Reserve will be procured by the ISO as described in the ISO Tariff.

ASRP 6.5.2 Procurement Not Limited to ISO Control Area

The ISO will procure Replacement Reserves from Generating Units connected to and operating within the ISO Control Area and external imports of System Resources.

ASRP 6.5.3 Self-Provision of Replacement Reserves

Scheduling Coordinators may self provide Replacement Reserves as external imports from System Resources located outside the ISO Control Area.

ASRP 6.5.4 Certification and Testing Requirements

Replacement Reserve may only be provided from resources including

- (1) Loads;
- (2) Generating Units,;
- (3) System Resources from external imports; and
- (4) Generating Units which an EOE intends to include in any System Unit

which have been certified and tested by the ISO using the process defined in Appendix C to this Protocol.

ASRP 7 VOLTAGE SUPPORT STANDARDS

ASRP 7.1 Standard for Voltage Support: Quantity Needed

The ISO shall determine on a daily basis for each Settlement Period for each Trading Day the quantity and location of Voltage Support required to maintain voltage levels and reactive margins within WSCC and MERC criteria using a power flow study based on the quantity and location of Demand scheduled in each Settlement Period of the Day-Ahead Market. The ISO shall issue daily voltage schedules (Dispatch instructions) to Generators, Participating TOs and UDCs for each Trading Day, which are required to be maintained for ISO Controlled Grid reliability.

ASRP 7.2 Standard for Voltage Support: Performance

ASRP 7.2.1 Automatic Voltage Regulation Requirement

A Generating Unit providing Voltage Support must be under the control of generator automatic voltage regulators throughout the time period during which Voltage Support is required to be provided. A Generating Unit may be required to operate underexcited (absorb reactive power) at periods of light system Demand to avoid potential high voltage conditions, or overexcited (produce reactive power) at periods of heavy system Demand to avoid potential low voltage conditions.

ASRP 7.2.2 Compensation for Operating Outside of Range

The ISO will not compensate Generators for operating their Generating Units within the power factor band of 0.90 lag to 0.95 lead. If the ISO requires additional Voltage Support in the

ASRP 9.1 Compliance Testing for Regulation

The ISO may test the capability of any Generating Unit providing Regulation by using the ISO EMS to move that Generating Unit's output over the full range of its Regulation capacity within a ten-minute period.

ASRP 9.2 Compliance Testing for Spinning Reserve

The ISO may test the capability of any Generating Unit or external import of a System Resource providing Spinning Reserve by issuing unannounced Dispatch instructions requiring the Generating Unit or external import of a System Resource to ramp up to its stated ten minute capability. Such tests may not necessarily occur on the hour. The ISO shall measure the response of the Generating Unit or external import of a System Resource to determine compliance with its stated capabilities.

ASRP 9.3 Compliance Testing for Non-Spinning Reserve

ASRP 9.3.1 Compliance Testing of a Generating Unit or System Resource

The ISO may test the Non-Spinning Reserve capability of a Generating Unit or an external import of a System Resource by issuing unannounced Dispatch instructions requiring the Generating Unit to come on line and ramp up or, in the case of a System Resource, to affirmatively respond to a real-time interchange schedule adjustment. Such tests may not necessarily occur on the hour. The ISO shall measure the response of the Generating Unit or external import of a System Resource to determine compliance with its stated capabilities.

ASRP 9.3.2 Compliance Testing of Curtailable Demand

The ISO may test the Non-Spinning Reserve capability of a Load providing Curtailable Demand by issuing unannounced Dispatch instructions requiring the operator of the Load to report the switchable Demand of that Load actually being served by the operator at the time of the instruction. No Load will be disconnected as part of the test.

ASRP 9.4 Compliance Testing for Replacement Reserve

ASRP 9.4.1 Compliance Testing of a Generating Unit or System Resource

The ISO may test the Replacement Reserve capability of a Generating Unit or an external import of a System Resource by issuing unannounced Dispatch instructions requiring the Generating Unit to come on line and ramp up or, in the case of a System Resource, to affirmatively respond to a real-time interchange schedule adjustment. Such tests may not necessarily occur on the hour. The ISO shall measure the response of the Generating Unit to determine compliance with its stated capabilities.

ASRP 9.7.2 Penalties for Failure to Pass Compliance Testing

The Scheduling Coordinator whose resource fails a compliance test shall be subject to the financial penalties provided for in the ISO Tariff. In addition, the ISO shall institute the sanctions described in ASRP 11.

ASRP 10 PERFORMANCE AUDITS FOR STANDARD COMPLIANCE

In addition to testing under ASRP 9, the ISO will periodically audit the performance of resources providing Ancillary Services to confirm the ability of such resources to meet the applicable Ancillary Service standard for performance and control.

ASRP 10.1 Performance Audit for Regulation

The ISO will audit the performance of a Generating Unit providing Regulation by monitoring its response to ISO EMS control around its Set Point within its rated MW/minute capability over the range of Regulation capacity scheduled for the current Settlement Period.

ASRP 10.2 Performance Audit for Spinning Reserve

The ISO will audit the performance of a Generating Unit or external import of a System Resource providing Spinning Reserve by auditing its response to Dispatch instructions and by analysis of Meter Data associated with the Generating Unit. Such audits may not necessarily occur on the hour. A Generating Unit providing Spinning Reserve shall be evaluated on its ability to respond to a Dispatch instruction, move at the MW/minute capability stated in its bid, reach the amount of Spinning Reserve capacity scheduled for the current Settlement Period within ten minutes of issue of the Dispatch instruction by the ISO, and respond to system frequency deviations outside the allowed frequency deadband. An external import of a System Resource providing Spinning Reserve shall be evaluated on its ability to respond to a Dispatch instruction, move at the MW/minute capability stated in its bid, reach the amount of Spinning Reserve capacity scheduled for the current Settlement Period within ten minutes of issue of the Dispatch instruction by the ISO.

ASRP 10.3 Performance Audit for Non-Spinning Reserve

The ISO will audit the performance of a Generating Unit or System Resource providing Non-Spinning Reserve by auditing its response to Dispatch instructions, and by analysis of Meter Data associated with the resource. Such audits may not necessarily occur on the hour. A Generating Unit providing Non-Spinning Reserve shall be evaluated on its ability to respond to a Dispatch instruction, move at the MW/minute capability stated in its bid, and reach the amount of Non-Spinning Reserve capacity under the control of the ISO scheduled for the current Settlement Period within ten minutes of issue of the Dispatch instruction by the ISO. An external import of a System Resource providing Non-

Spinning Reserve shall be evaluated on its ability to respond to a Dispatch instruction, move at the MW/minute capability stated in its bid, reach the amount of Non-Spinning Reserve capacity scheduled for the current Settlement Period within ten minutes of issue of the Dispatch instruction by the ISO.

ASRP 10.4 Performance Audit for Replacement Reserve

The ISO will audit the performance of a Generating Unit or System Resource providing Replacement Reserve by auditing its response to Dispatch instructions, and by analysis of Meter Data associated with the resource. Such audits may not necessarily occur on the hour. A Generating Unit providing Replacement Reserve shall be evaluated on its ability to respond to a Dispatch instruction, start within the designated time frame, move at the MW/minute capability stated in its bid, reach the amount of Replacement Reserve capacity scheduled for the Settlement Period concerned within sixty minutes of issue of the Dispatch instruction, and sustain operation at this level for a sufficient time to assure availability over the specified period. An external import of a System Resource providing Replacement Reserve shall be evaluated on its ability to respond to a Dispatch instruction, start within the designated time frame, move at the MW/minute capability stated in its bid, reach the amount of Replacement Reserve capacity scheduled for the Settlement Period concerned within sixty minutes of issue of the Dispatch instruction, and sustain operation at this level for a sufficient time to assure availability over the specified period.

ASRP 10.5 Performance Audit for Voltage Support

The ISO will audit the performance of a resource providing Voltage Support by auditing of its response to Dispatch instructions, and by analysis of Meter Data associated with the resource. A resource providing Voltage Support shall be evaluated on its ability to provide reactive support over the stated power factor range of the resource, provide reactive support within the prescribed time periods, and demonstrate the effective function of automatic voltage control equipment for the amount of Voltage Support under the control of the ISO for the current Settlement Period.

ASRP 10.6 Performance Audit for Black Start

The ISO will audit the performance of a Black Start Generating Unit by analysis of Meter Data and other records to determine that the performance criteria relating to the Black Start from that Black Start Generating Unit were met when required.

ASRP 10.7 Consequences of Failure to Pass Performance Audits

ASRP 10.7.1 Notification of Performance Audit Results

The ISO shall give the Scheduling Coordinator for an Ancillary Service Provider whose resource was subject to a performance audit written notice of the results of such audit. The ISO will at the same time send a copy of the notice to the Ancillary Service Provider.

Period must be disclosed to the ISO one (1) hour prior to the start of the Settlement Period.

SBP 5.1 Content of Ancillary Services Schedules and Bids

Ancillary Services in the Day-Ahead and the Hour-Ahead Market are comprised of the following: Regulation, Spinning Reserve, Non-Spinning Reserve and Replacement Reserve. Each Generating Unit, System Unit, Curtailable Demand or external import for which a SC wishes to submit Ancillary Services schedules and bids must meet the requirements set forth in the Ancillary Services Requirements Protocol (ASRP). For each Ancillary Service offered to the ISO auction of self-provided, SCs must include a bid price for Energy in the form of a staircase function composed of up to eleven (11) ordered pairs (i.e., ten (10) steps or price bands) of quantity/price information. These staircase functions must be either monotonically non-decreasing (Generating Units, System Units, and external imports of System Resources) or monotonically non-increasing (Curtailable Demands). The same resource capacity may be offered into more than one ISO Ancillary Service auction at the same time (the sequential evaluation of such multiple offers between Ancillary Services markets to eliminate double counting of capacity is described in the SP). In each category of Ancillary Service, the reference to "Revised" types of Schedules indicates a submittal which is part of a Revised Day-Ahead Schedule as described in SP. Each of the data section can submitted up to seven (7) days in advance. There is no provision for external exports with regard to Ancillary Services bids. The functionality necessary to accept such bids does not exist in the ISO scheduling software.

SBP 5.1.1 Regulation

Each SC desiring to self-provide Regulation or to participate in the ISO's Regulation auction will submit the following information for each relevant Generating Unit or System Unit for each Settlement Period of the relevant Trading Day:

- (a) type of schedule: Regulation Ancillary Service (ANC_SRVC) or Revised Regulation Ancillary Service (REVISED_ANC_SRVC);
- (b) SC's ID code;
- (c) type of market (Day-Ahead or Hour-Ahead) and Trading Day;

SBP 5.1.2.2 Spinning Reserve: External Imports

Each SC desiring to bid or self-provide Spinning Reserve will submit the following information for each relevant external import for each Settlement Period of the relevant Trading Day:

- (a) type of schedule: Spinning Reserve Ancillary Service (ANC_SRVC) or Revised Spinning Reserve Ancillary Service (REVISED_ANC_SRVC);
- (b) SC's ID code;
- (c) type of market (Day-Ahead or Hour-Ahead) and Trading Day;
- (d) Scheduling Point (the name);
- (e) interchange ID code (the name of the selling entity, buying entity and a numeric identifier);
- (f) external Control Area ID;
- (g) Schedule ID (NERC ID number);
- (h) complete WSCC tag;
- (j) preferred bid flag, which must be set to "NO", indicating a self-provided schedule, until such time as the ISO's scheduling system is able to support Ancillary Services bids from external imports/exports;
- (k) in the case of Existing Contracts, the applicable contract reference number;
- (l) Spinning Reserve capacity (MW);
- (m) ramp rate (MW/minute); and
- (n) bid price for Spinning Reserve Energy if called upon (\$/MWh).

SBP 5.1.3 Non-Spinning Reserve

SBP 5.1.3.1 Non-Spinning Reserve: Generating Units or System Units

Each SC desiring to self-provide Non-Spinning Reserve or to participate in the ISO's Non-Spinning Reserve auction will submit the following information for each relevant Generating Unit or System Unit for each Settlement Period of the relevant Trading Day:

- (h) Generating Unit or System Unit operating limits (high and low MW);
- (i) Generating Unit or System Unit ramp rate (MW/minute);
- (j) bid price for Non-Spinning Reserve capacity (\$/MW); and

SBP 5.1.3.3 Non-Spinning Reserve: External Imports

Each SC desiring to bid or self-provide Non-Spinning Reserve will submit the following information for each relevant external import for each Settlement Period of the relevant Trading Day:

- (a) type of schedule: Non-Spinning Reserve Ancillary Service (ANC_SRVC) or Revised Non-Spinning Reserve Ancillary Service (REVISED_ANC_SRVC);
- (b) SC's ID code;
- (c) type of market (Day-Ahead or Hour-Ahead) and Trading Day;
- (d) Scheduling Point (the name);
- (e) interchange ID code (the name of the selling entity, buying entity and a numeric identifier);
- (f) external Control Area ID;
- (g) Schedule ID (NERC ID number);
- (h) complete WSCC tag;
- (i) preferred bid flag, which must be set to "NO", indicating a self-provided schedule;
- (j) export flag, a "YES" indicates an external export and a "NO" indicates an external import;
- (k) in the case of Existing Contracts, the applicable contract reference number;
- (l) time to synchronize following notification (less than ten (10) minutes mandatory);
- (m) Non-Spinning Reserve capacity (MW);
- (n) ramp rate (MW/minute); and
- (o) bid price for Non-Spinning Reserve Energy if called upon (\$/MWh).

- (c) type of market (Day-Ahead or Hour-Ahead) and Trading Day;
- (d) Curtailable Demand ID code;
- (e) preferred bid flag, a "YES" indicates a bid and a "NO" indicates a self-provided schedule;
- (f) maximum allocation curtailment duration (hours) (CURT_HR);
- (g) time to reduction following notification (minutes);
- (h) amount of Curtailable Demand that can be interrupted within sixty (60) minutes following notification (MW);
- (i) Curtailable Demand reduction rate (MW/minute);
- (j) bid price for Replacement Reserve capacity (\$/MW); and
- (k) bid price for Replacement Reserve Energy if called upon (\$/MWh).

SBP 5.1.4.3 Replacement Reserve: External Imports

Each SC desiring to bid or self-provide Replacement Reserve will submit the following information for each relevant external import for each Settlement Period of the relevant Trading Day:

- (a) type of schedule: Replacement Reserve Ancillary Service (ANC_SRVC) or Revised Replacement Reserve Ancillary Service (REVISED_ANC_SRVC);
- (b) SC's ID code;
- (c) type of market (Day-Ahead or Hour-Ahead) and Trading Day;
- (d) Scheduling Point (the name);
- (e) interchange ID code (the name of the selling entity, buying entity and a numeric identifier);
- (f) external Control Area ID;
- (g) Schedule ID (NERC ID number);
- (h) complete WSCC tag;
- (k) preferred bid flag, which must be set to "NO", indicating a self-provided schedule, until such time as the ISO's scheduling system is able to support Ancillary Services bids from external imports;
- (j) in the case of Existing Contracts, the applicable contract reference number;

- (k) time to synchronize following notification (less than sixty (60) minutes mandatory);
- (l) Replacement Reserve capacity (MW);
- (m) ramp rate (MW/minute); and
- (n) bid price for Replacement Reserve Energy if called upon (\$/MWh).

SBP 5.2 Validation of Ancillary Services Bids

The ISO will verify that each Ancillary Services schedule or bid conforms to the format specified for the relevant service. If the Ancillary Services schedule or bid does not so conform, the ISO will send a notification to the SC notifying the SC of the errors in the schedules and/or bids. SCs will comply with the ISO Data Templates and Validation Rules document, which contains the validation criteria for Ancillary Services schedules and bids. Shown below are the two stages of validation carried out by the ISO:

SBP 5.2.1 Stage One Validation

During stage one validation, each incoming Ancillary Services schedule or bid will be validated to verify proper content, format and syntax. A technical validation will be performed to verify that a schedule or bid quantity of Regulation, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve does not exceed the available capacity for Regulation, Operating Reserves and Replacement Reserve on the Generating Units, System Units, Curtailable Demands and external imports/exports scheduled or bid. The SC will be notified immediately through WEnet of any validation errors. For each error detected, an error message will be generated by the ISO in the SC's notification screen which will specify the nature of the error. The SC can then look at the notification messages to review the detailed list of errors, make changes, and resubmit if it is still within the timing requirements of the SP. The SC is also notified of successful validation via WEnet.

SBP 5.2.2 Stage Two Validation

Stage two validation will be conducted by the ISO in accordance with Appendix E of the ISO Tariff.

Coordinators, the price for such a sale back shall be the hourly user rate for the Ancillary Service for the Settlement Period for the Zone concerned in the Hour-Ahead Market. If the ISO has no market for the same of the Ancillary Service concerned to other Scheduling Coordinators, the price for the sale back shall be zero.

- (f) Any minimum Energy output associated with Regulation and Spinning Reserve services shall be the responsibility of the SC, as the ISO's auction does not compensate the SC for the minimum Energy output of its Generating Units or System Unit, if any, bidding to provide these services. Accordingly, the SCs shall adjust their Balanced Schedules to accommodate the minimum Energy outputs required by the Generating Units or System Units, if any, included in the Ancillary Services schedules.
- (g) SCs providing one or more of the Ancillary Services cannot change the identification of the Generating Units, System Units or external imports of System Resources, if any, or Curtailable Demands offered in the Day-Ahead Market, in the Hour-Ahead Market, or in the Real Time Market (except with respect to System Units, if any, in which case SCs are required to identify and disclose the resource specific information for all Generating Units and Curtailable Demands constituting the System Unit scheduled or bid into the ISO's Day-Ahead Market and Hour-Ahead Market as required in SP 3.3.2(e)).

SP9.4 Ancillary Service Bid Evaluation and Pricing Terminology

Unless otherwise specifically described herein, the following terminology will apply:

$CapRes_{ijt}$	=	the Ancillary Service reserve reservation bid price (in \$/MW).
$Cap_{ijt}max$	=	the maximum amount of reserve that can be scheduled by the ISO with respect to a SC's bid of that resource to supply Ancillary Services (in MW).
Cap_{ij}	=	that portion of an Ancillary Services bid (in MW), identified in the ISO's evaluation process, that may be used to meet the ISO's <i>Requirement</i> for a particular Ancillary Service ($Cap_{ijt} \leq Cap_{ijt}max$).

Requirement = Amount of upward and downward movement (Regulation) required by the ISO.

SP 9.5.2 Regulation Price Determination

The price payable to SCs for Regulation made available for upward and downward movement in accordance with the ISO's Ancillary Services schedules will, for each Generating Unit and System Unit concerned, be the zonal Market Clearing Price for Regulation calculated as follows:

$$Pag_{ijt} = MCP_{xt}$$

where:

the zonal Market Clearing Price (MCP_{xt}) for Regulation is the highest priced winning reservation bid of a Generating Unit or System Unit serving Demand in Zone X based on the reservation bid price (i.e., $MCP_{xt} = \text{Max}(CapRes_{ijt})$ in Zone X for Settlement Period t). IN the absence of Inter-Zonal Congestion, the zonal Market Clearing Prices will be equal.

SP 9.6 Spinning Reserves Bid Evaluation and Pricing

SP 9.6.1 Spinning Reserves Bid Evaluation

- (a) Based on the quantity and location of the system requirements, the ISO will select the Generating Units, System Units and external imports of System Resources with the Spinning Reserve bids which minimize the sum of the total Spinning Reserve bids of the Generating Units, System Units and external imports of System Resources selected subject to two constraints:
 - (i) the sum of the selected amounts of Spinning Reserve bid must be greater than or equal to the required amount of Spinning Reserve; and
 - (ii) the amount of Spinning Reserve bid for each Generating Unit, System Unit or external import of a System Resource must be less than or equal to that Generating Unit's, System Unit's or external import's ramp rate times 10 minutes.
- (b) The total Spinning Reserve bid for each Generating Unit, System Unit or external import of a System Resource is calculated by multiplying the reserve reservation bid price by the amount of Spinning Reserve bid. Subject to any locational requirements, the ISO will select the winning Spinning Reserve bids in accordance with the following criteria:

$$\text{Min} \sum_{i,j} \text{Totalbid}_{ijt}$$

subject to

$$\sum_{i,j} \text{Cap}_{ijt} \geq \text{Requirement}_t$$

and

$$\text{Cap}_{ijt} \leq \text{Cap}_{ijt} \text{max}$$

where:

$$\text{TotalBid}_{ijt} = \text{Cap}_{ijt} * \text{CapRes}_{ijt}$$

$$\text{Requirement}_t = \text{Amount of Spinning Reserve required by the ISO.}$$

SP 9.6.2 Spinning Reserves Price Determination

The price payable to SCs for Spinning Reserve made available in accordance with the ISO's Ancillary Services schedules shall, for each Generating Unit, System Unit or external import of a System Resource concerned, be the zonal Market Clearing Price for Spinning Reserve calculated as follows:

$$P_{sp_{ijt}} = MCP_{xt}$$

where:

the zonal Market Clearing Price (MCP_{xt}) for Spinning Reserve is the highest priced winning reservation bid of a Generating Unit, System Unit or external import of a System Resource serving Demand in Zone X based on the reservation bid price (i.e., $MCP_{xt} = \text{Max}(\text{CapRes}_{ijt})$ in Zone X for Settlement Period t). In the absence of Inter-Zonal Congestion, the zonal Market Clearing Prices will be equal.

SP 9.7 Non-Spinning Reserves Bid Evaluation and Pricing

SP 9.7.1 Non-Spinning Reserves Bid Evaluation

- (a) Based on the quantity and location of the system requirements, the ISO shall select the Generating Units, System Units, Curtailable Demands and external imports of System Resources with the Non-Spinning Reserve bids which minimize the sum of the total Non-Spinning Reserve bids of the Generating Units, System Units, Curtailable Demands and external imports of System Resources selected subject to two constraints:
 - (i) the sum of the selected amounts of Non-Spinning Reserve bid must be greater than or equal to the required amount of Non-Spinning Reserve; and

- (ii) the amount of Non-Spinning Reserve bid for each Generating Unit, System Unit, or Curtailable Demand must be less than or equal to that Generating Unit's, System Unit's, Curtailable Demand's, or external import's ramp rate (or time to interruption in the case of a Load offering Demand reduction) times the difference between 10 minutes and the time to synchronize in the case of a Generating Unit, or to interruption in the case of a Load.
- (b) The total Non-Spinning Reserve bid for each Generating Unit, System Unit, Curtailable Demand or external import of a System Resource is calculated by multiplying the reserve reservation bid price by the amount of Non-Spinning Reserve bid. Subject to any locational requirements, the ISO will accept the winning Non-Spinning Reserve bids in accordance with the following criteria:

$$\text{Min} \sum_{i,j} \text{Totalbid}_{ijt}$$

subject to

$$\sum_{i,j} \text{Cap}_{ijt} \geq \text{Requirement}_t$$

and

$$\text{Cap}_{ijt} \leq \text{Cap}_{ijt} \text{ max}$$

where:

$$\text{TotalBid}_{ijt} = \text{Cap}_{ijt} * \text{CapRes}_{ijt}$$

$$\text{Requirement} = \text{Amount of Non-Spinning Reserve required by the ISO.}$$

SP 9.7.2 Non-Spinning Reserves Price Determination

The price payable to SCs for Non-Spinning Reserve made available in accordance with the ISO's Ancillary Services schedules shall, for each Generating Unit, System Unit, Curtailable Demand or external import of a System Resource concerned, be the zonal Market Clearing Price for Non-Spinning Reserve calculated as follows:

$$P_{nonsp_{ijt}} = MCP_{xt}$$

where:

the zonal Market Clearing Price (MCP_{xt}) for Non-Spinning Reserve is the highest priced winning reservation bid of a Generating Unit, System Unit,

Curtable Demand or external import of a System Resource serving Demand in Zone X based on the reservation bid (i.e., $MCP_{xt} = \text{Max}(CapRes_{ijt})$ in Zone X for Settlement Period t). In the absence of Inter-Zonal Congestion, the zonal Market Clearing Prices will be equal.

SP 9.8 Replacement Reserves Bid Evaluation and Pricing

SP 9.8.1 Replacement Reserves Bid Evaluation

- (a) Based on the quantity and location of the system requirements, the ISO shall select the Generating Units, System Units, Curtable Demands and external imports of System Resources with the Replacement Reserve bids which minimize the sum of the total Replacement Reserve bids of the Generating Units, System Units, Curtable Demands and external imports of System Resources selected subject to two constraints:
- (i) the sum of the selected amounts of Replacement Reserve bid must be greater than or equal to the required amount of Replacement Reserve; and
- (ii) the amount of Replacement Reserve bid for each Generating Unit, System Unit, Curtable Demand or external import of a System Resource must be less than or equal to that Generating Unit's, System Unit's, Curtable Demand's or external import's ramp rate (or time to interruption in the case of a Load offering Demand reduction) times the difference between 60 minutes and the time to synchronize in the case of Generating Unit, or to interruption in the case of Load.
- (b) The total Replacement Reserve bid for each Generating Unit, System Unit, Curtable Demand or external import of a System Resource is calculated by multiplying the reserve reservation bid price by the amount of Replacement Reserve bid. Subject to any locational requirements, the ISO will select the winning Replacement Reserve bids in accordance with the following criteria:

$$\text{Min} \sum_{i,j} \text{Totalbid}_{ijt}$$

subject to

$$\sum_{i,j} \text{Cap}_{ijt} \geq \text{Requirement}_t$$

and

$$\text{Cap}_{ijt} \leq \text{Cap}_{ijt} \text{max}$$

where:

$$TotalBid_{ijt} = Cap_{ijt} * CapRes_{ijt}$$

Requirement = *Amount of Replacement Reserve required by the ISO.*

SP 9.8.2 Replacement Reserves Price Determination

The price payable to SCs for Replacement Reserve made available in accordance with the ISO's Ancillary Services schedules shall, for each Generating Unit, System Unit, Curtailable Demand or external import of a System Resource concerned, be the zonal Market Clearing Price for Replacement Reserve calculated as follows:

$$Prepres_{ijt} = MCP_{xt}$$

where:

the zonal Market Clearing Price (MCP_{xt}) for Replacement Reserve is the highest priced winning reservation bid of a Generating Unit, System Unit, Curtailable Demand or external import of a System Resource serving Demand in Zone X based on the reservation bid price (i.e., $MCP_{xt} = \text{Max}(CapRes_{ijt})$ in Zone X for Settlement Period t). In the absence of Inter-Zonal Congestion, the zonal Market Clearing Prices will be equal.

SP 9.9 Existing Contracts – Ancillary Services Accountability

Certain Existing Contracts may have requirements for Ancillary Services which differ from the requirements of this SP 9. Each PTO will be responsible for recovering any deficits or crediting any surpluses associated with differences in assignment of Ancillary Services requirements, through its bilateral arrangements or its Transmission Owner's Tariff. The ISO will not undertake the settlement or billing of any such differences under any Existing Contract.

SP 10 DAY/HOUR AHEAD INTER-ZONAL CONGESTION MANAGEMENT

SP 10.1 Congestion Management Assumptions

The inter-Zonal Congestion Management process is based upon the following assumptions:

- (a) Inter-Zonal Congestion Management will ignore Intra-Zonal Congestion. Intra-Zonal Congestion will be managed in real time;
- (b) Inter-Zonal Congestion Management will use a DC optimal power flow (OPF) program that uses linear optimization techniques with active power (MW) controls only; and

26. TEMPORARY CHANGES TO ANCILLARY SERVICES PENALTIES

26.1 Application and Termination

The temporary change, respecting Ancillary Services penalties, set out in Section 26.2 shall continue in effect until such time as the Chief Executive Officer of the ISO issues a Notice of Full-Scale Operations, posted on the ISO Internet "Home Page", at <http://www.caiso.com>, or such other Internet address as the ISO may publish from time to time, specifying the date on which this Section 26 shall cease to apply, which date shall be not less than seven (7) days after the Notice of Full-Scale Operations is issued.

26.2 For so long as this Section 26.2 remains in effect, a Scheduling Coordinator shall not be liable for the penalties specified in Section 2.5.26 of the ISO Tariff if, as a result of limitations associated with the ISO's Congestion Management software, the scheduled output of the resource from which the Scheduling coordinator has committed to provide an Ancillary Service is adjusted by the ISO to a level that conflicts with the Scheduling Coordinator's Ancillary Service capacity commitments, thereby resulting in a failed availability test.