AMENDMENT NO. 10 TO ISO TARIFF AND PROTOCOLS

2.5.7.4 ~~Initial Procurement~~**Bidding and Self-Provision** of Ancillary Services ~~from Resources Within the ISO Grid~~

~~As of the ISO Operations Date the ISO will purchase Ancillary Services only from resources located within the ISO Controlled Grid. The ISO will not procure Regulation from outside of the ISO Control Area, nor will it support self provision of Regulation from resources outside the ISO Control Area except under Existing Contracts.~~ 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 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 ISO Protocols. ~~As of the ISO Operations Date the ISO will not support any other self provision of these Ancillary Services from resources located outside the ISO Control Area.~~

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 or, 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.

2.5.15   The Spinning Reserve Auction

Bid Information. If the bid is for the provision of Spinning Reserve from a Generating

Unit, Eeach 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 ($Cap_{ijt}max$) 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 ($Cap_{ijt}max$) 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 ($CapRes_{ijt}$ ($/MW$));

(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 the difference between

10 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 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:

. . . .

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 ~~and~~, Loads or external imports of System Resources with the bids which minimize the sum of the total bids of the Generating Units ~~and~~, 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 ~~or~~, Load's or external import's bid capacity must be less than or equal to that Generating Unit's ~~or~~, Load's or external import's ramp rate (or time to interruption in the case of a Load offering Demand reduction) ~~times 10 minutes~~ 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 ~~or~~, 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:

. . . .

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 ($Cap_{ijt}max$);

(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_{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 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 ~~or~~, Loads or external imports of System Resources with the bids which minimize the sum of the total bids of the Generating Units ~~or~~, 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 or, Load's or external import's bid capacity must be less

    than or equal to that Generating Unit's or, 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 or, Load or external import of a System

Resource is calculated by multiplying the capacity reservation bid price by the bid

capacity.

. . . .

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.

providing. 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 4.5.3 Procurement as of Operations Date

~~Beginning January 1, 1998, t~~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 ~~Controlled Grid~~ Control Area.

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 5.4.1 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; ~~and~~

(d)   off line Generating Units qualified to provide Non-Spinning Reserve; and

(e)   external imports of System Resources.

ASRP 5.8.2   Procurement ~~as of Operations Date~~ Not Limited to ISO Control Area

~~Beginning January 1, 1998, t~~The ISO will procure Spinning and Non-Spinning Reserves ~~only~~ from ~~providers with~~ Generating Units connected to and operating within the ISO Control~~led Grid~~ 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 ~~or~~;

(2) System Resources from external imports; or

(3) 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 ~~and~~;

(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 5.8.5 Self-Provision of Operating Reserve

Scheduling Coordinators may ~~not~~ self provide Spinning and Non-Spinning Reserves from resources located outside the ISO Control Area ~~except under Existing Contracts~~.

ASRP 6.5.2 Procurement ~~as of Operations Date~~ Not Limited to ISO Control Area

~~Beginning January 1, 1998, t~~The ISO will procure Replacement Reserves ~~only~~ from ~~providers with~~ Generating Units connected to and operating within the ISO Control~~led~~ ~~Grid~~ Area and external imports of System Resources.

ASRP 6.5.3   Self-Provision of Replacement Reserves

Scheduling Coordinators may ~~not~~ self provide Replacement Reserves as external imports from System ~~r~~Resources located outside the ISO Control Area ~~except under Existing Contracts~~.

ASRP 6.5.4   Certification and Testing Requirements

Replacement Reserve may only be provided from resources including

(1) Loads;

(2) Generating Units; ~~and~~

(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 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 9.3.1   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 9.4.1   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 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 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 A 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, 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 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 A 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. 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.

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/export 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 and external exports). 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 imports/exports with regard to Ancillary Services bids, only self-provided Ancillary Services under Existing Contracts. The functionality necessary to accept such bids does not exist in the ISO scheduling software.

SBP 5.1.2.2 Spinning Reserve: External Imports/~~Exports~~

Each SC desiring to bid or self-provide Spinning Reserve ~~using transmission service available to it under Existing Contracts~~ will submit the following information for each relevant external import~~/export~~ for each Settlement Period of the relevant Trading Day: . . .

(k) ~~contract reference for the Existing Contract~~, in the case of Existing Contracts, the applicable contract reference number;

SBP 5.1.3.3 Non-Spinning Reserve: External Imports/~~Exports~~

Each SC desiring to bid or self-provide Non-Spinning Reserve ~~using transmission service available to it under Existing Contracts~~ will submit the following information for each relevant external import~~/export~~ for each Settlement Period of the relevant Trading Day: . . .

(k) ~~contract reference for the Existing Contract~~, in the case of Existing Contracts, the applicable contract reference number;

SBP 5.1.4.3 Replacement Reserve: External Imports

Each SC desiring to bid or self-provide Replacement Reserve ~~using transmission service available to it under Existing Contracts~~ will submit the following information for

each relevant external import/export for each Settlement Period of the relevant Trading

Day: . . .

(j) ~~contract reference for the Existing Contract~~, in the case of Existing Contracts, the

applicable contract reference number;

SP 9.3   **Scheduling Ancillary Services Resources**

(g)   SCs providing one or more of the Ancillary Services cannot change the

identification of the Generating Units ~~or~~, 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)).

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 ~~and~~, 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 ~~and~~, 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 or, System Unit or external import of a System Resource must be less than or equal to that Generating Unit's or, System Unit's or external import's ramp rate times 10 minutes.

(b)   The total Spinning Reserve bid for each Generating Unit or, 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:

. . . .

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 and, System Unit or external import of a System Resource concerned, be the zonal Market Clearing Price for Spinning Reserve calculated as follows:

$$Psp_{ijt} = MCP_{xt}$$

where:

the zonal Market Clearing Price (MCP_{xt}) for Spinning Reserve is the highest priced winning

reservation bid of a Generating Unit ~~or~~, System Unit or external import of a System

Resource serving Demand in Zone X based on the reservation bid price (i.e., $MCP_{xt} =$

$Max(CapRes_{ijt})$ in Zone X for Settlement Period t). In the absence of Inter-Zonal

Congestion, the zonal Market Clearing Prices will be equal.

SP 9.7.1   **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 ~~and~~, 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 ~~and~~, 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 ~~amount of Non-Spinning Reserve bid~~

must be less than or equal to that Generating Unit's, System Unit's ~~, or~~,

Curtailable Demand's ~~Non-Spinning Reserve available (or available for~~

~~reduction) in 10 minutes.~~, 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 ~~or~~, 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:

. . . .

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 ~~or~~, Curtailable Demand or external import of a System Resource concerned,

be the zonal Market Clearing Price for Non-Spinning Reserve calculated as

follows:

$Pnonsp_{ijt} = MCP_{xt}$

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 ~~or~~, Curtailable

Demand or external import of a System Resource serving Demand in Zone X

based on the reservation bid (i.e., $MCP_{xt} = Max(CapRes_{ijt})$ in Zone X for

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Settlement Period t). In the absence of Inter-Zonal Congestion, the zonal Market Clearing Prices will be equal.

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 ~~and~~, Curtailable 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 ~~and~~, Curtailable 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 ~~or~~, Curtailable Demand or external import of a System Resource must be less than or equal to that Generating Unit's, System Unit's ~~or~~, Curtailable Demand's ~~Replacement Reserve available (or available for reduction) in 60 minutes.~~ 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 ~~or~~,

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Curtailable 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:

. . . .

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

DP 8.7.2 Operating Reserve

(a) Spinning Reserve:

(i)   Spinning Reserve provided from Generating Units and Interconnection schedules ~~(for self providers of ancillary services)~~ must meet the standards specified in the ASRP;

(ii)   the ISO will dispatch Spinning Reserve as may be required to meet the Applicable Reliability Criteria;

(iii)   the ISO may dispatch Spinning Reserve as balancing Energy to return Regulation Generating Units to their Set Points and restore full Regulation margin; and

(iv)   the ISO will dispatch Spinning Reserve in merit order of Energy bid prices as determined by BEEP;

(b)   Non-Spinning Reserve:

(i)   Non-Spinning Reserve provided from Generating Units ~~and~~, Demands, and external imports of System Resources must meet the standards specified in the ASRP;

(ii)   the ISO may dispatch Non-Spinning Reserve in place of Spinning Reserve to meet Applicable Reliability Criteria;

(iii)   the ISO will dispatch Non-Spinning Reserve in merit order of Energy bid prices as determined by BEEP; and

(iv)   the ISO may dispatch Non-Spinning Reserve to replace

Spinning Reserve if there is a shortfall in Spinning Reserve

because of a deficiency of balancing Energy;

DP 9.1.1   **Range of ISO Authority**

The ISO has full authority to:

(a)   direct the physical operation of the ISO Controlled Grid, including

(without limitation) circuit breakers, switches, voltage control

equipment, protective relays, metering and Load Shedding

equipment;

(b)   commit Reliability Must-Run Generation;

(c)   order a change in operating status of voltage control equipment;

take required action to prevent against uncontrolled losses of load

or Generation;

(d)   control the output of Generating Units and Interconnection

schedules ~~(for self-providers of Ancillary Services)~~ scheduled to

provide Ancillary Services or offering Supplemental Energy;

(e)   dispatch Curtailable Demand which has been scheduled to provide

Non-Spinning Reserve or Replacement Reserve; and

(f)   require the operation of resources which are at the ISO's disposal

in a System Emergency, as described in DP 10.

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.