

ATTACHMENT I
INTER-SCHEDULING COORDINATOR
ANCILLARY SERVICE TRADE

2.2.6.4 Trades between Scheduling Coordinators. Billing and settling an Inter-Scheduling

Coordinator Energy or Ancillary Service Trade shall be done in accordance with the agreements between the parties to the ~~Inter-Scheduling Coordinator Trade~~. The parties to an Inter-Scheduling Coordinator Energy or Ancillary Service Trade shall notify the ISO, in accordance with the ISO Protocols, of the Zone in which the transaction is deemed to occur, which, for ~~Inter-Scheduling Coordinator Energy Trades, shall be used for~~ the purpose of identifying which Scheduling Coordinator will be responsible for payment of applicable Usage Charges;

2.2.7.2 Submitting Balanced Schedules. A Scheduling Coordinator shall submit to the ISO only Balanced Schedules in the Day-Ahead Market and the Hour-Ahead Market. A Schedule shall be treated as a Balanced Schedule when aggregate Generation, Inter-Scheduling Coordinator Energy Trades (whether purchases or sales), and imports or exports to or from external Control Areas adjusted for Transmissions Losses as appropriate, equals aggregate forecast Demand with respect to all entities for which the Scheduling Coordinator schedules in each Zone. A schedule that includes imports or exports from or to the ISO Controlled Grid or Inter-Scheduling Coordinator Energy Trades (whether Generation or Demand) shall be deemed to be balanced. If a Scheduling Coordinator submits a Schedule that is not a Balanced Schedule, the ISO shall reject that Schedule provided that Scheduling Coordinators shall be able to validate their Schedules prior to the deadline for submission to the ISO.

2.2.8.1 Preferred Schedule. A Preferred Schedule shall be submitted by each Scheduling Coordinator on a daily and/or hourly basis to the ISO. Scheduling Coordinators may also submit to the ISO, Ancillary Services bids in accordance with Section 2.5.10 and, where they elect to self provide Ancillary Services pursuant to Section 2.5.20.1, an Ancillary Service schedule meeting the requirements set forth in Section 2.5.20.6. The Preferred Schedule shall also include an indication of which resources (Generation or Load) if any may be adjusted by the ISO to eliminate Congestion. On receipt of the Preferred Schedule in the Day-Ahead scheduling process, the ISO shall notify the Scheduling Coordinator of any specific Reliability Must-Run Units which have not been included in the Preferred Schedule but which the ISO requires to run in the next Trading Day. The ISO will also notify the Scheduling Coordinator of any Ancillary Services it requires from specific Reliability Must-Run Units under their Reliability Must-Run Contracts in the next Trading Day. If the ISO identifies mismatches in the scheduled quantity or location for any Inter-Scheduling Coordinator [Energy](#) Trade, it will notify the Scheduling Coordinators concerned and give them until a specified time, which will allow them approximately one half-hour, in which to modify their Schedules to resolve the mismatch before it applies the provisions of Section 2.2.11.3.4. If the ISO notifies a Scheduling Coordinator that there will be no Congestion on the ISO Controlled Grid and, subject to Section 2.2.11.3.4, the Preferred Schedule shall become that Scheduling Coordinator's Final Schedule.

2.2.8.2 Suggested Adjusted Schedules. In the Day-Ahead scheduling process, if the sum of Scheduling Coordinators' Preferred Schedules would cause Congestion across any Inter-Zonal Interface, the ISO shall issue to all Scheduling Coordinators an estimate of the Usage Charges if Congestion is not relieved and Suggested Adjusted Schedules that shall reflect adjustments made by the ISO to each Scheduling Coordinator's Preferred Schedule to eliminate Congestion, based on the initial Adjustment Bids submitted in the Preferred Schedules. The ISO will include in the Suggested Adjusted Schedules the resolution of any mismatches in Inter-Scheduling Coordinator Energy Trades, as determined by the ISO.

2.2.8.3 Revised Schedules. Following receipt of a Suggested Adjusted Schedule, a Scheduling Coordinator may submit to the ISO a Revised Schedule, which shall be a Balanced Schedule, and which shall seek to reduce or eliminate Congestion. If the ISO identifies mismatches in the scheduled quantity or location for any Inter-Scheduling Coordinator [Energy Trade](#), it will notify the Scheduling Coordinators concerned and give them until a specified time, which will allow them approximately one half-hour, in which to modify their Schedules to resolve the mismatch before it applies the provisions of Section 2.2.11.3.4.

2.2.11.3.3 Zone. The Zone within which Energy is deemed to be provided by one Scheduling Coordinator to another under the Inter-Scheduling Coordinator Energy Trades.

2.2.11.3.4 Adjustments. Scheduling Coordinators will have the opportunity to resubmit Preferred Schedules and or Revised Schedules upon notice by the ISO if the ISO determines that the quantity or location of the receiving Scheduling Coordinator is not consistent with the quantity or location of the delivering Scheduling Coordinator. If the Scheduling Coordinators involved in a mismatched Inter-Scheduling Coordinator Energy Trade do not submit adjusted Schedules which resolve any mismatch as to quantities and provided that there is no dispute as to whether the mismatched trade occurred or over its location, the ISO will adjust the Schedule containing the higher quantity to match the scheduled quantity of Energy in the other Schedule, except where the Schedule to be reduced contains only Inter-Scheduling Coordinator Energy Trades, in which case the ISO will adjust the other Schedule to match the Schedule containing the higher quantity. If there is a dispute between the Scheduling Coordinators as to whether the Inter-Scheduling Coordinator Energy Trade occurred or over its location, the ISO will remove the disputed trade from the Schedules in which it appears. The ISO will then balance the Schedules which are no longer Balanced Schedules by adjusting resources in the relevant Scheduling Coordinator's portfolio in accordance with the procedures detailed in the ISO Protocols.

2.2.12.6 ISO Analysis of Preferred Schedules. On receipt of the Preferred Schedules the ISO will notify Scheduling Coordinators of any specific Reliability Must-Run Units which have not been included in the Preferred Schedule but which the ISO requires to run in the Trading Day. The ISO will also notify Scheduling Coordinators of any Ancillary Services it requires from specific Reliability Must-Run Units under their Reliability Must-Run Contracts in the Trading Day. The ISO will also notify Scheduling Coordinators of any Ancillary Services it requires from specific Reliability Must-Run Units under their Reliability Must-Run Contracts in the Trading Day. If the ISO identifies mismatches in the scheduled quantity or location for any Inter-Scheduling Coordinator [Energy Trade](#), it will notify the Scheduling Coordinators concerned and give them until a specified time, which will allow them approximately one half-hour, in which to modify their Schedules to resolve the mismatch before it applies the provisions of Section 2.2.11.3.4. The ISO shall analyze the combined Preferred Schedules submitted by all Scheduling Coordinators to forecast the probability of Congestion being caused by the Preferred Schedules. If the ISO finds that the Preferred Schedules will not cause Congestion, and subject to Section 2.2.11.3.4, the Preferred Schedules shall become the Final Schedules and the ISO shall notify Scheduling Coordinators accordingly.

2.2.12.7 Issuance of Suggested Adjusted Schedules. If the ISO finds that the Preferred Schedules would cause Congestion, it shall issue Suggested Adjusted Schedules no later than 11:00 a.m. on the day preceding the Trading Day. The ISO will include in the Suggested Adjusted Schedules the resolution of any mismatches in Inter-Scheduling Coordinator Energy Trades, as determined by the ISO.

2.2.12.8 Submission of Revised Schedules. If the ISO has issued Suggested Adjusted Schedules, by 12:00 noon on the day preceding the Trading Day, each Scheduling Coordinator may submit a Revised Schedule to the ISO or shall inform the ISO that it does not wish to make any change to its previously submitted Preferred Schedule. If the ISO identifies mismatches in the scheduled quantity or location for any Inter-Scheduling Coordinator Energy Trade, it will notify the Scheduling Coordinators concerned and give them until a specified time, which will allow them approximately one half-hour, in which to modify their Schedules to resolve the mismatch before it applies the provisions of Section 2.2.11.3.4.

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

2.5.20.1 Ancillary Service Obligations. Each Scheduling Coordinator shall be assigned a share of the total Regulation, Spinning Reserve, Non-Spinning and Replacement Reserve requirements by the ISO. The share assigned to each Scheduling Coordinator is described in Section 2.5.20 and in Section 2.5.28 as that Scheduling Coordinator's obligation. Each Scheduling Coordinator's Regulation obligation in each Zone shall be pro rata based upon the same proportion as the Scheduling Coordinator's metered hourly Demand bears to the total metered Demand served in each hour in that Zone. Each Scheduling Coordinator's Operating Reserve obligation in each Zone shall be pro rata based upon the same proportion as the ratio of the product of its percentage obligation based on Schedules and the sum of its metered Demand and firm exports bears to the total of such products for all Scheduling Coordinators in the Zone. The Scheduling Coordinator's percentage obligation based on Schedules shall be calculated as the sum of 5% of its scheduled Demand (except the Demand covered by firm purchases from outside the ISO Control Area) scheduled to be met by Generation from hydroelectric resources plus 7% of its scheduled Demand (except the Demand covered by firm purchases from outside the ISO Control Area) scheduled to be met by Generation from non-hydroelectric resources in that Zone, plus 100% of any Interruptible Imports and on-demand obligations which it schedules. Each Scheduling Coordinator's

Replacement Reserve obligation in each Zone ~~is calculated as described in Section 2.5.28.4 shall be pro rata based upon the same proportion as the metered Demand of the Scheduling Coordinator bears to the total metered Demand in the Zone.~~

Scheduling Coordinator obligations for each Ancillary Service will be calculated based on the requirement for each Ancillary Service as the ISO determines prior to the adjustments set forth in Section 2.5.3.6.

2.5.20.2 Right to Self Provide.

Each Scheduling Coordinator may choose to self provide all, or a portion, of its Regulation and Reserve obligation in each Zone. The ISO shall schedule self provided Ancillary Services, Day-Ahead and Hour-Ahead, and Dispatch self provided Ancillary Services in real time. To the extent that a Scheduling Coordinator self provides, the ISO shall correspondingly reduce the quantity of the Ancillary Services concerned, which it procures as described in Sections 2.5.14 to 2.5.17. In accordance with Section 2.5.22.11 and Section 2.5.26.2, if a Scheduling Coordinator uses capacity scheduled to self-provide Spinning Reserve, Non-Spinning Reserve, or Replacement Reserve to supply Uninstructed Imbalance Energy to the ISO from a Generating Unit, Curtailable Demand, or System Resource under circumstances that would cause the elimination of payments to the Scheduling Coordinator under Section 2.5.26.2 if the capacity had been bid and was selected by the ISO to supply the Ancillary Service, the Scheduling Coordinator shall pay to the ISO the amount of the payment that would be eliminated under that section. Scheduling Coordinators may trade Ancillary Services obligations so that any Scheduling Coordinator may reduce its Ancillary Services obligation through purchase of Ancillary Services capacity from another Scheduling Coordinator, or self-provide in excess of its obligation to sell Ancillary Services to another Scheduling Coordinator, subject to the limits specified under Section 2.5.20.5.2.

2.5.20.6 Information To Be Submitted By Scheduling Coordinators For Each Service.

Scheduling Coordinators electing to self-provide Ancillary Services shall submit the information for each self-provided Ancillary Service as described in Sections 2.5.14 to 2.5.17, excluding the capacity price information, but including the name of the trading Scheduling Coordinator in the case of Inter-Scheduling Coordinator Ancillary Service Trades. The ISO will verify and respond to submitted schedules in accordance with Appendix E and the ISO Protocols.

2.5.21 Scheduling of Units to Provide Ancillary Services.

The ISO shall prepare supplier schedules for Ancillary Services (both self provided and purchased by the ISO) for the Day-Ahead and the Hour-Ahead Markets. The ISO shall notify each Scheduling Coordinator no later than 1:00 p.m. of the day prior to the Trading Day of their Ancillary Services schedules for the Day-Ahead and no later than one hour prior to the operating hour of their Ancillary Services schedules for the Hour-Ahead. The ISO Protocols set forth the information, which will be included in these schedules. Where long-term contracts are involved, the information may be treated as standing information for the duration of the contract.

Once the ISO has given Scheduling Coordinators notice of the Day-Ahead and Hour-Ahead schedules, these schedules represent binding commitments made in the markets between the ISO and the Scheduling Coordinators concerned. Any minimum energy input and output associated with Regulation and Spinning Reserve services shall be the responsibility of the Scheduling Coordinator, as the ISO's auction does not compensate the Scheduling Coordinator for the minimum energy output of Generating Units bidding to provide these services. Accordingly the Scheduling Coordinators shall adjust their schedules to accommodate the minimum outputs required by the Generating Units included on the Schedules.

Notwithstanding the foregoing, a Scheduling Coordinator who has sold or self-provided Regulation, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve capacity to the ISO in the Day-Ahead Market shall be required to replacemay buy back that capacity in whole or in part from the ISO if the scheduled self-provision is decreased between the Day-Ahead and Hour-Ahead Markets, or if the Ancillary Service associated with a Generating Unit, Curtailable Demand, or System Resource successfully bid in a Day-Ahead Ancillary Service Market is reduced in the Hour-Ahead Market, for any reason (other than the negligence or willful misconduct of the ISO). The price for such replaced Ancillary Service shall be at the Zonal Market Clearing Price in the Hour-Ahead Market for the Ancillary Service for the Settlement Period concerned for the Zone in which the Generating Units or other resources on behalf of which the Scheduling Coordinator buys back the capacity, are located. The ISO will purchase the

Ancillary Service concerned from another Scheduling Coordinator in the Hour-Ahead Market in accordance with the provisions of the ISO Tariff.

2.5.28 Settlement for User Charges for Ancillary Services.

The ISO shall determine a separate hourly user rate for Regulation, Spinning Reserve, Non-Spinning Reserve and Replacement Reserve for each Settlement Period purchased in the Day-Ahead market, and in the Hour-Ahead Market. Each rate will be charged to Scheduling Coordinators on a volumetric basis applied to each Scheduling Coordinator's obligation for the Ancillary Service concerned which it has not self provided, as adjusted by any Inter-Scheduling Coordinator Ancillary Service Trades.

Each Scheduling Coordinator's obligation for Regulation, Spinning Reserve, Non-Spinning Reserve and Replacement Reserve for each Zone shall be calculated in accordance with Section 2.5.20.1.

The cost of Voltage Support and Black Start shall be allocated to Scheduling Coordinators as described in Sections 2.5.28.

Quantities and rates for the Hour-Ahead markets shall be calculated by substituting the Hour-Ahead quantities and prices in the relevant formulae (including self provided quantities of the Ancillary Service) except that the user rates for Regulation Spinning Reserve, Non-Spinning Reserve and Replacement Reserve capacity shall be calculated by dividing the net payments made by the ISO for each service by the obligation for each service which has not been self-provided. The net payments are the total payments for each service net of sums payable by Scheduling Coordinators who have bought back in the Hour-Ahead Regulation, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve capacity, as the case may be, which they had sold to the ISO in the Day-Ahead Market. Separate rates shall be calculated for each Service as follows:

23.4 Amendments to the Schedules and Bids Protocol

SBP 4.1 Content of Adjustment Bids

Adjustment Bids are contained in Preferred Schedules and Revised Schedules submitted by SCs for particular Generating Units (***including Physical Scheduling Plants***), Dispatchable Loads and external imports/exports. Adjustment Bids cannot be submitted with respect to Inter-Scheduling Coordinator [Energy Trades](#).

Each SC is required to submit a preferred operating point for each Generating Unit, Dispatchable Load and external import/export (these quantities are presented in the SC's submitted Schedule as "Hourly MWh"). The SC's preferred operating point for each Generating Unit, Dispatchable Load and external import/export must be within the range of any Adjustment Bids to be used by the ISO. The minimum MW output level, which may be zero MW (or negative for pumped storage resources), and the maximum MW output level must be physically achievable.

Inter-Scheduling Coordinator
Energy Trades

Energy transactions between Scheduling Coordinators :

Inter-Scheduling Coordinator
Ancillary Service Trades

Ancillary Service transactions between Scheduling Coordinators

ASRP 3.2

Right to Self Provide

Each Scheduling Coordinator may self provide all, or a portion, of its Regulation and Reserve obligation within each Zone [or adjust its obligation through Inter-Scheduling Coordinator Ancillary Service Trades](#).

Dispatch Protocol

DP 3.1 Final Schedules

The scheduling process described in the SP will produce for the ISO real time dispatchers for each Settlement Period of the Trading Day a Final Schedule consisting of the combined commitments contained in the Final Day-Ahead Schedules and the Final Hour-Ahead Schedules for the relevant Settlement Period. The Final Schedule will include information with respect to:

- (a) Generation schedules;
- (b) Demand schedules;
- (c) Ancillary Services schedules based on the ISO's Ancillary Services auction;
- (d) Ancillary Services schedules, based on SCs' ISO accepted schedules and forecast load, for self-provided Ancillary Services;
- (e) Interconnection schedules between the ISO Control Area and other Control Areas; and
- (f) Inter-Scheduling Coordinator [Energy Trades](#).

Dispatch Protocol

DP 3.4.2 Generator or Interconnection Schedule Change

Each SC shall keep the ISO apprised of any change or potential change in the current status of all Generating Units, Interconnection schedules and Inter-Scheduling Coordinator [Energy Trades](#). This will include any changes in Generating Unit capacity that could affect planned Dispatch and conditions that could affect the reliability of a Generating Unit. Each SC shall immediately pass to the ISO any information which it receives from a Generator which the Generator provides to the SC pursuant to DP 3.7. Each SC shall immediately pass to the ISO any information it receives from an EOE which the EOE provides to the SC pursuant to DP 3.9.

Dispatch Protocol

DP 3.9.5 Generator or Interchange Schedule Change

Each EOE shall inform the ISO, through its respective SC, of any change or potential change in the current status of all Generating Units, Interconnection schedules and Inter-Scheduling Coordinator [Energy Trades](#). This will include any changes in Generating Unit capacity that could affect planned dispatch and conditions that could affect the reliability of a Generating Unit. Each EOE shall immediately pass to the ISO, through its respective SC, any information which it receives from a Generator which the Generator provides to the EOE pursuant to DP 3.9.

Schedules and Bids Protocol

SBP 2.1.4 Inter-Scheduling Coordinator Energy Trades (“Internal Imports/Exports”) Section of a Balanced Schedule

In the event of an Inter-Scheduling Coordinator Energy Trade, the SCs who are parties to that trade must agree on a Zone in which the trade will be deemed to take place (“Trading Zone”) and notify the ISO accordingly. If the SCs which are parties to the trade cannot agree on a Trading Zone, the ISO will designate one. The purpose of designating a Trading Zone is to provide for the allocation of Usage Charges which may arise in connection with the trade. The Inter-Scheduling Coordinator Energy Trades section of a Schedule will include the following information for each Inter-Scheduling Coordinator Trade:

- (a) SC’s ID code;
- (b) type of market (Day-Ahead or Hour-Ahead) and Trading Day;
- (c) trading SC (buyer or seller);
- (d) type of Schedule: Preferred or Revised (refer to the SP for details);
- (e) Trading Zone;
- (f) Schedule type – Energy (ENGY); and
- (g) hourly scheduled MWh, including any zero values, for each Settlement Period of the Trading Day (in the case of a Day-Ahead Schedule) and for the relevant Settlement Period (in the case of an Hour-Ahead Schedule), with internal imports into the SC reported as negative quantities and internal exports from the SC reported as positive quantities.

SBP 2.1.5 Inter-Scheduling Coordinator Ancillary Service Trades ("Internal Imports/Exports") Section of a Balanced Schedule

In the event of an Inter-Scheduling Coordinator Ancillary Service Trade, the SCs who are parties to that trade must agree on a Trading Zone in which the trade is deemed to take place and notify the ISO accordingly. The Ancillary Service obligations in the Trading Zone of each Scheduling Coordinator will be adjusted to reflect the trade. The Inter-Scheduling Coordinator Ancillary Service Trades section of a Schedule will include the following information for each Inter-Scheduling Coordinator Ancillary Service Trade:

- (a) SC's ID code;
- (b) type of market (Day-Ahead or Hour-Ahead) and Trading Day;
- (c) Trading SC (buyer or seller);
- (d) Trading Zone;
- (e) Schedule type- Regulation (RG), Spinning Reserve (SP), Non-Spinning Reserve (NS) or Replacement Reserve (RP); and
- (f) Contracted MW amount of traded Ancillary Service obligation.

Schedules and Bids Protocol

SBP 2.2.2 Stage Two Validation

During stage two validation, Schedules will be checked to determine whether each SC's aggregate Generation and external imports (adjusted for Transmission Losses) and Inter-Scheduling Coordinator Energy Trades (whether purchases or sales) equals the SC's aggregate Demand forecast, including external exports. The SC must take into account the applicable Generation Meter Multipliers (GMMs) as described in the SP. The SC will be notified if the counterpart trade to any Inter-Scheduling Coordinator Ancillary Service Trade has not been submitted, or is infeasible (i.e. if both SCs are selling or both are buying). Mismatches in Inter-Scheduling Coordinator Ancillary Service Trades shall be adjusted to be equal to the amount specified by the selling SC. This validation is performed in accordance with the timing requirement described in the SP. An SC can also check whether its Schedules will pass the ISO's stage two validation by manually initiating validation of its Preferred Schedules or Revised Schedules, as described in the SP, at any time prior to the deadline for submission of Preferred Schedules or Revised Schedules (as the case may be). It is the SC's responsibility to perform such checks, if desired. 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. If the ISO detects a mismatch in Inter-Scheduling Coordinator Trades, the ISO will notify both SCs of the mismatch in Energy quantity and/or location. The SC can then look at the notification messages to review the detailed list of errors, make changes, and resubmit the Schedule if it is still within the timing requirements of the SP. The SC is also notified of successful validation via WEnet.

Schedules and Bids Protocol

SBP 4.1 Content of Adjustment Bids

Adjustment Bids are contained in Preferred Schedules and Revised Schedules submitted by SCs for particular Generating Units, Dispatchable Loads and external imports/exports. Adjustment Bids cannot be submitted with respect to Inter-Scheduling Coordinator [Energy Trades](#).

Each SC is required to submit a preferred operating point for each Generating Unit, Dispatchable Load and external import/export (these quantities are presented in the SC's submitted Schedule as "Hourly MWh"). The SC's preferred operating point for each Generating Unit, Dispatchable Load and external import/export must be within the range of any Adjustment Bids to be used by the ISO. The minimum MW output level, which may be zero MW (or negative for pumped storage resources), and the maximum MW output level must be physically achievable.

Schedules and Bids Protocol

SBP 5.3 Buy Back of Ancillary Services

~~Each SC desiring to buy back in the Hour-Ahead Regulation, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve capacity sold to the ISO in the Day-Ahead Market shall do so by submitting in the Hour-Ahead auction for the Settlement Period concerned bids complying with the requirements of SBP 5.1 for the Generating Units/System Units/Curtailable Demands for which the SC wishes to buy back the Ancillary Service capacity concerned, showing the revised quantity (which may be zero) of the Ancillary Service capacity which the SC wishes to provide in the Hour-Ahead Market from the Generating Units/System Units/Curtailable Demands concerned. The ISO will then calculate from this the Ancillary Services capacity which the SC wishes to buy back. A Scheduling Coordinator who has sold or self-provided Regulation, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve capacity to the ISO in the Day-Ahead Market shall be required to replace such capacity to the extent scheduled self-provision is decreased between the Day-Ahead and Hour-Ahead Markets, or to the extent the Ancillary Service associated with a Generating Unit, Curtailable Demand, or System Resource successfully bid in a Day-Ahead Ancillary Service Market is reduced in the Hour-Ahead Market, for any reason (other than the negligence or willful misconduct of the ISO). The price for such replaced Ancillary Service shall be at the Market Clearing Price in the Hour-Ahead Market for the same Settlement Period for the Ancillary Service capacity concerned.~~

SCHEDULING PROTOCOL

SP 3 TIME LINES

- (a) Consistent with Section 2.2.12.1 of the ISO Tariff, the ISO may implement any temporary variation or waiver of timing requirements contained in this SP (including the omission of any step) if any of the following criteria are met:
- (i) the ISO receives Schedules that require delay in performing Day-Ahead Market or Hour-Ahead Market evaluations, such as in the case of the ISO receiving Inter-Scheduling Coordinator [Energy](#) Trades that do not balance;
 - (ii) the ISO requires additional time to fulfill its responsibilities pursuant to Section 2.2.2 of the ISO Tariff;
 - (iii) problems with data or the processing of data cause a delay in receiving or issuing Schedules or publishing information on the WEnet;
 - (iv) problems with telecommunications or computing infrastructure cause a delay in receiving or issuing Schedules or publishing information on the WEnet; or
 - (v) such waiver or variation of timing requirements is reasonably necessary to preserve System Reliability, prevent an imminent or threatened System Emergency or to retain Operational Control over the ISO Controlled Grid during an actual System Emergency.
- (b) If the ISO temporarily implements a waiver or variation of such timing requirements (including the omission of any step) consistent with Section 2.2.12.1 of the ISO Tariff and SP 3(a), the ISO will publish the following information on WEnet as soon as practicable:
- (i) the exact timing requirements affected;
 - (ii) details of any substituted timing requirements;
 - (iii) an estimate of the period for which this waiver or variation will apply; and
 - (iv) reasons for the temporary waiver or variation.
- (c) If, despite the variation of any time requirement or the omission of any step, the ISO either fails to receive sufficient Schedules to operate the Day-Ahead Market or is unable to perform Congestion Management in the Day-Ahead Market, the ISO may abort the Day-Ahead Market and require all Schedules to be submitted, and Congestion Management to be performed, in the Hour-Ahead Market.
- (d) If, despite the variation of any time requirement or omission of any step, the ISO either fails to receive sufficient Schedules to operate the Hour-Ahead Market or is unable to perform Congestion Management in the Hour-Ahead Market, the ISO may abort the Hour-Ahead Market and function in real time.
- (e) The incorporation of the scheduling of the use of rights under Existing Contracts into the ISO's Day-Ahead, Hour-Ahead and real time processes is additionally described in SP 7 and in the SBP.

Scheduling Protocol

SP 3.1.1 Types of Balanced Schedules

A Schedule shall be treated as a Balanced Schedule when the SC's aggregate Generation and external imports (adjusted for Transmission Losses) and Inter-Scheduling Coordinator Energy Trades (whether purchases or sales), equal the SC's aggregate Demand forecast, including external exports, with respect to all entities for which the SC schedules. On an interim basis, the ISO may assist SCs in matching Inter-Scheduling Coordinator Energy Trades.

SCHEDULING PROTOCOL

SP 3.1.6 Final Schedules

If the ISO notifies a SC that there will be no Congestion on the ISO Controlled Grid based on the Preferred Schedules submitted by all SCs, the Preferred Schedule shall become that SC's Final Schedule. If the ISO has adjusted the SC's Preferred Schedule to match Inter-Scheduling Coordinator [Energy Trades](#) then the adjusted Preferred Schedule shall become that SC's Final Schedule. If the ISO notifies a SC that there will be no Congestion on the ISO Controlled Grid based on the Revised Schedules submitted by all SCs, the Revised Schedule shall become that SC's Final Schedule. If the ISO has adjusted the SC's Revised Schedule to match Inter-Scheduling Coordinator [Energy Trades](#) then the adjusted Revised Schedule shall become that SC's Final Schedule. If there is Congestion based on the Revised Schedules or mismatches in Inter-Scheduling Coordinator [Energy Trades](#), the ISO shall adjust the Revised Schedules and issue Final Schedules. The SCs will be notified, via WEnet, that their Schedules have become final. The ISO will also publish a final set of Usage Charges for Energy transfers between Zones, applicable to all SCs.

Scheduling Protocol

SP 3.2.6.1 Actions by SCs and the ISO

By 10:00 am on the day ahead of the Trading Day (for example, by 10:00 am on Tuesday for the Wednesday Trading Day) and for each Settlement Period of that Trading Day (see SP 3.2.6.2 for information on the pre-validation performed at ten (10) minutes prior to the 10:00 am deadline):

- (a) SCs will submit, as part of their Preferred Day-Ahead Schedules, their Adjustment Bids, if any, to the ISO in accordance with the SBP;
- (b) SCs will submit, as part of their Preferred Day-Ahead Schedules, their Adjustment Bids, if any, to the ISO in accordance with the SBP;
- (c) SCs will submit their Ancillary Services bids, if any, to the ISO in accordance with the SBP and SP 9;
- (d) SCs will submit their schedules for self-provided Ancillary Services, if any, to the ISO in accordance with the SBP and SP 9;
- (e) the ISO will validate (in accordance with the SBP) all SC submitted Preferred Day-Ahead Schedules for Energy and Adjustment Bids and may assist SCs to resolve mismatches in scheduled quantities or locations for Inter-Scheduling Coordinator [Energy Trades](#) in accordance with the procedure described in SP 3.2.6.4;
- (f) the ISO will validate (in accordance with the SBP) all SC submitted schedules for self-provided Ancillary Services, [Inter-Scheduling Coordinator Ancillary Service Trades](#), and Ancillary Services bids which were part of their Preferred Day-Ahead Schedules;
- (g) the ISO will start the first iteration of Inter-Zonal Congestion Management process as described in SP 10;
- (h) the ISO will start the Ancillary Services bid evaluation process as described in SP 9;
- (i) the ISO will notify SCs of any Reliability Must-Run Units which have not been included in Preferred Day-Ahead Schedules but which the ISO requires to run in the Trading Day, except in those instances where a Reliability Must-Run Unit requires more than one day's notice, in which case the ISO may notify the applicable SC more than one day in advance of the Trading Day; and
- (j) the ISO will notify SCs of any Ancillary Services it requires from specific Reliability Must-Run Units under their Reliability Must-Run Contracts in the Trading Day.

SP 3.2.6.2 Pre-validation

At 10 minutes prior to the deadline for submittal of the Preferred Day-Ahead Schedules, Adjustment Bids, schedules for self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids (the "submittal"), the ISO shall conduct a pre-validation of the stage two validation described in the SBP. The purpose of this is to allow the SCs, particularly those involved in the Inter-Scheduling Coordinator Energy Trades, to identify and resolve any validation problems. The ISO will immediately communicate the results of each SC's pre-validation to that SC via Wenet.

SP 3.2.6.3 Invalidation

Invalidation of the submittal for any Settlement Period results in rejection of the submittal for all Settlement Periods of the relevant Trading Day. During the initial operations of the ISO, the ISO may assist SCs to resolve mismatches in the scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades contained in their Preferred Schedules in accordance with SP 3.2.6.4. SCs may check at any time prior to 10:00 am whether or not their submittal will pass the ISO's validation checks at 10:00 am. It is the responsibility of the SCs to perform such checks since Preferred Day-Ahead Schedules, Adjustment Bids, Schedules of self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids which are invalidated cannot be resubmitted after 10:00 am for the Day-Ahead Market, except that, during the initial period of ISO operations, the ISO will allow resubmission of Preferred Schedules which have mismatches in the scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades. The ISO will immediately communicate the results of each SC's 10:00 am validation to that SC via WEnet.

SP 3.2.6.4 Inter-Scheduling Coordinator Energy Trades - Mismatches

During the initial period of ISO operations, if the ISO detects a mismatch in the scheduled quantities or locations for Inter-Scheduling Coordinator Energy Trades, the ISO will promptly notify both the receiving and sending SCs that a mismatch exists and will specify the time, which will allow them approximately one half-hour, by which they may submit modified Schedules which resolve the mismatch. If the SCs are unable to resolve the mismatch as to quantities in the allotted time and provided there is no dispute as to whether the trade occurred or over its location, then the ISO may adjust the SCs' Schedules in accordance with the following procedure:

- (a) The ISO will determine which Schedule contains the higher scheduled quantity of Energy for the Inter-Scheduling Coordinator Energy Trade and will reduce it so that it is equal to the lower scheduled quantity. However, if the Schedule specifying the higher scheduled quantity of Energy contains only Inter-Scheduling Coordinator Energy Trades, the ISO will increase the Schedule specifying the lower quantity of Energy so that it is equal to the higher scheduled quantity of Energy.
- (b) If there is a dispute between the SCs as to whether the trade occurred or over its location, the ISO will remove the disputed trade from the Schedules in which it appears.
- (c) As a consequence of the adjustments under (a) or (b) above, the SCs whose Schedules have been adjusted will no longer have a Balanced Schedule. The ISO will adjust their resources based on the following

priority: Demands, exports, imports, Generation, and other Inter-Scheduling Coordinator [Energy Trades](#).

- (d) The adjustments to each SC's portfolio will be based on the Adjustment Bids provided by the SC.
- (e) The ISO will notify each SC whose Schedule has been adjusted as to the adjustment in its Schedule.

Scheduling Protocol

SP 3.2.8.1 Actions by SCs and the ISO

- (a) SCs will submit Revised Day-Ahead Schedules to the ISO, in response to the ISO's Suggested Adjusted Day-Ahead Schedules, in accordance with the SBP;
- (b) SCs will submit, as part of their Revised Day-Ahead Schedules, revised Adjustment Bids (allowing the range of usage to change, but not the prices), if any, to the ISO in accordance with the SBP;
- (c) SCs will submit revised Ancillary Services bids, if any, to the ISO in accordance with the SBP and SP 9;
- (d) SCs will submit their schedules for self-provided Ancillary Services, if any, to the ISO in accordance with the SBP and SP 9;
- (e) the ISO will validate (in accordance with the SBP) all SC submitted Revised Day-Ahead Schedules for Energy and Adjustment Bids and may assist SCs to resolve mismatches in scheduled quantities or locations for Inter-Scheduling Coordinator [Energy Trades](#) in accordance with the same procedure described in SP 3.2.8.4;
- (f) the ISO will validate (in accordance with the SBP) all SC submitted schedules for self-provided Ancillary Services and Ancillary Services bids which were part of their Revised Day-Ahead Schedules;
- (g) the ISO will start the second (and final) iteration of the Inter-Zonal Congestion Management process as described in SP 10;
- (h) the ISO will start the second (and final) iteration of the Ancillary Services bid evaluation process as described in SP 9; and
- (i) the ISO will use the SC's Preferred Day-Ahead Schedule in the event the SC does not submit a Revised Day-Ahead Schedule. If a SC desires to revise only part of its Preferred Day-Ahead Schedule, those portions of the Revised Day-Ahead Schedule must be submitted, including both the removal of any resources in the Preferred Day-Ahead Schedule which are not to be included in the Revised Day-Ahead Schedule and the addition of any resources that were not included in the Preferred Day-Ahead Schedule but that are to be included in the Revised Day-Ahead Schedule. A SC's failure to remove such resources will cause the Revised Schedule to be unbalanced, and rejected as such in the ISO's validation process.

SP 3.2.8.2 Pre-validation

At 10 minutes prior to the deadline for submittal of the Revised Day-Ahead Schedules, Adjustment Bids, schedules for self-provided Ancillary Services, [Inter-Scheduling Coordinator Ancillary Service Trades](#), and Ancillary Services bids (the "submittal"), the ISO shall conduct a pre-validation of the stage two validation described in the SBP. The purpose of this is to allow the SCs,

particularly those involved in Inter-Scheduling Coordinator [Energy Trades](#), to identify and resolve any validation problems. The ISO will immediately communicate the results of the pre-validation of each SC's submittal to that SC via WEnet.

SP 3.2.8.3 Invalidation

Invalidation of the submittal for any Settlement Period results in rejection of the submittal for all Settlement Periods of the relevant Trading Day. During the initial operations of the ISO, the ISO may assist SCs to resolve mismatches in the scheduled quantities or locations for Inter-Scheduling Coordinator [Energy Trades](#) in accordance with 3.2.8.4. SCs may check at any time prior to 12:00 noon whether or not their submittal will pass the ISO's validation checks (which are undertaken at 12:00 noon). It is the responsibility of the SCs to perform such checks since Revised Day-Ahead Schedules, Adjustment Bids, schedules of self-provided Ancillary Services, [Inter-Scheduling Coordinator Ancillary Service Trades](#), and Ancillary Services bids which are invalidated cannot be resubmitted after 12:00 noon for the Day-Ahead Market, except that during the initial period of operations, the ISO will allow resubmission of Schedules to resolve mismatches in the scheduled quantities and locations for Inter-Scheduling Coordinator [Energy Trades](#). The ISO will immediately communicate the results of each SC's 12:00 noon validation to that SC via WEnet.

SP 3.2.8.4 Inter-Scheduling Coordinator [Energy Trades](#) - Mismatches

During the initial period of ISO operations, if the ISO detects a mismatch in the scheduled quantities or locations for Inter-Scheduling Coordinator [Energy Trades](#), the ISO will promptly notify both the receiving and sending SCs that a mismatch exists and will specify the time, which will allow them approximately one half-hour, by which they may submit modified Schedules which resolve the mismatch. If the SCs are unable to resolve the mismatch as to quantities in the allotted time and provided there is no dispute as to whether the trade occurred or over its location, the ISO may adjust the SCs' Schedules in accordance with the following procedure:

- (a) The ISO will determine which Schedule contains the higher scheduled quantity of Energy for the Inter-Scheduling Coordinator [Energy Trade](#) and will reduce it so that it is equal to the lower scheduled quantity. However, if the Schedule specifying the higher scheduled quantity of Energy contains only Inter-Scheduling Coordinator [Energy Trades](#), the ISO will increase the Schedule specifying the lower quantity of Energy so that it is equal to the higher scheduled quantity of Energy.
- (b) If there is a dispute between the SCs as to whether the trade occurred or over its location, the ISO will remove the disputed trade from the Schedules in which it appears.
- (c) As a consequence of the adjustments under (a) or (b) above, the SCs whose Schedules have been adjusted will no longer have a Balanced Schedule. The ISO will adjust their resources based on the following priority: Demands, exports, imports, Generation, and other Inter-Scheduling Coordinator [Energy Trades](#).
- (d) The adjustments to each SC's portfolio will be based on the Adjustment Bids provided by the SC.

- (e) The ISO will notify each SC whose Schedule has been adjusted as to the adjustment in its Schedule.

SP 3.2.9

By 1:00 pm, Day Ahead

By 1:00 pm on the day ahead of the Trading Day (for example, by 1:00 pm on Tuesday for the Wednesday Trading Day) and for each Settlement Period of that Trading Day:

- (a) the ISO will complete the second iteration, if necessary, of the Inter-Zonal Congestion Management process described in SP 10;
- (b) the ISO will provide, via WEnet, Final Day-Ahead Schedules to all SCs which, depending on the existence of Inter-Zonal Congestion, could be:
 - (i) the Preferred Day-Ahead Schedules (when no Congestion was found at 11:00 am and no mismatched Inter-Scheduling Coordinator Energy Trades);
 - (ii) the Revised Day-Ahead Schedules (when no Congestion was found at 1:00 pm and no mismatched Inter-Scheduling Coordinator Energy Trades);
 - (iii) modified Revised Day-Ahead Schedules for those SCs which had their Revised Day-Ahead Schedules for Energy modified for Inter-Zonal Congestion or mismatches in Inter-Scheduling Coordinator Energy Trades; or
 - (iv) modified Preferred Day-Ahead Schedules for those SCs which had their Preferred Schedule for Energy modified for Inter-Scheduling Coordinator Energy Trade mismatches;
- (c) the ISO will publish on WEnet the Day-Ahead Usage Charge rate (in \$/MWh of scheduled flow) for Energy transfer between Zones, if any;
- (d) the ISO will provide, via WEnet, as part of the Final Day-Ahead Schedules, schedules for Ancillary Services to the SCs which either:
 - (i) submitted Ancillary Services bids and which, as a result, have been selected to supply Ancillary Services; or
 - (ii) submitted schedules to self-provide Ancillary Services and which schedules have been validated by the ISO; and
 - (iii) specified Inter-Scheduling Coordinator Ancillary Service Trades which have been validated by the ISO; and
- (e) the ISO will coordinate with adjacent Control Areas on the net schedules between the ISO Control Area and such other Control Areas. If the ISO and the operator of an adjacent Control Area have different records with respect to the net schedules, individual SC intertie schedules will be examined. If the other Control Area's records are determined to be correct, the ISO will notify the affected SC. The affected SC is required to correct its schedule in the Hour-Ahead Market.

Scheduling Protocol

SP 3.3 Hour-Ahead Market

- (a) The Hour-Ahead Market is a “deviations” market in that it represents changes from the Day-Ahead Market commitments already made for each Settlement Period in the Trading Day. The SCs do not schedule these deviations. Instead, these deviations are calculated by the ISO as the difference between the Final Hour-Ahead Schedules (reflecting updated forecasts of Generation, Demand, external imports/exports and Inter-Scheduling Coordinator Energy Trades) and the Final Day-Ahead Schedules. If a SC does not submit a valid Preferred Hour-Ahead Schedule, its Final Day-Ahead Schedule will be deemed to be its Preferred Hour-Ahead Schedule.
- (b) The Hour-Ahead Markets for each Settlement Period of each Trading Day open when the Day-Ahead Market commitments are made for the same Trading Day. Hour-Ahead Market commitments are made one hour ahead of the start of the applicable Settlement Period, at which time the ISO issues the Final Hour-Ahead Schedules. There is an option in the bid submittal process for a SC to submit a Schedule or bid for one Settlement Period of the Trading Day or a set of Schedules and bids for all Settlement Periods of the Trading Day (but only between 1:00 pm and 12:00 midnight the day before).

Scheduling Protocol

SP 3.3.1.1 Actions by SCs and the ISO

- (a) SCs will submit their Preferred Hour-Ahead Schedules to the ISO in accordance with the SBP;
- (b) SCs will submit, as part of their Preferred Hour-Ahead Schedules, their Adjustment Bids, if any, to the ISO in accordance with the SBP;
- (c) SCs will submit their Ancillary Services bids, if any, to the ISO in accordance with the SBP and SP 9;
- (d) SCs will submit their Schedules for self-provided Ancillary Services, and Inter-Scheduling Coordinator Ancillary Service Trades, if any, to the ISO in accordance with the SBP and SP 9;
- (e) the ISO will validate (in accordance with the SBP) all SC submitted Preferred Hour-Ahead Schedules for Energy and Adjustment Bids;
- (f) the ISO will validate (in accordance with the SBP) all SC submitted Schedules for self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids which were part of their Preferred Hour-Ahead Schedules;
- (g) the ISO will start the Inter-Zonal Congestion Management process as described in SP 10; and
- (h) the ISO will start the Ancillary Services bid evaluation process as described in SP 9.

SP 3.3.1.2 Pre-validation

At 10 minutes prior to the deadline for submittal of the Preferred Hour-Ahead Schedules, Adjustment Bids, schedules for self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades, and Ancillary Services bids (the "submittal"), the ISO shall conduct a pre-validation of the stage two validation described in the SBP. The purpose of this is to allow the SCs, particularly those involved in the Inter-Scheduling Coordinator Energy Trades, to identify and resolve any validation problems. The ISO will immediately communicate the results of the pre-validation of each SC's submittal to that SC via WENet.

SP 3.3.1.3 Invalidation

Invalidation of the submittal results in rejection of the submittal. SCs may check at any time prior to two hours ahead of the relevant Settlement Period whether or not their submittals will pass the ISO's validation checks (which are undertaken at two hours ahead of the Settlement Period). It is the responsibility of SCs to perform such checks since Preferred Hour-Ahead Schedules, Adjustment Bids, schedules of self-provided Ancillary Services, Inter-Scheduling Coordinator Ancillary Service Trades and Ancillary Services bids which are invalidated cannot be resubmitted for the Hour-Ahead Market after two hours ahead of the relevant Settlement Period. The ISO will immediately communicate the results of each SC's two hour ahead validation to that SC via WENet.

SP 3.3.2

By One Hour Ahead

By one hour ahead of the Settlement Period (for example, by 11:00 am for the Settlement Period starting at 12:00 noon [or hour ending 1300]) and in respect of that Settlement Period:

- (a) The ISO will use the SC's Final Day-Ahead Schedule, without any Day-Ahead Adjustment Bids or Day-Ahead Ancillary Service bids, in the event the SC's Preferred Hour-Ahead Schedule fails validation. If a SC desires to submit an Hour-Ahead Schedule that is different than its Final Day-Ahead Schedule the SC must submit the Hour-Ahead Schedule including the addition or removal of any resources (i.e., for those resources to be removed, a zero value for the hourly MW quantity) in its Final Day-Ahead Schedule that are to be added, or that are not to be included, in the Hour-Ahead Schedule. A SC's failure to add or remove such resources will cause the Hour-Ahead Schedule to be unbalanced, and rejected as such in the ISO's validation process.
- (b) the ISO will complete, if necessary, the Inter-Zonal Congestion Management process described in SP 10;
- (c) the ISO will provide, via WEnet, Final Hour-Ahead Schedules for Energy to the ISO's real time dispatchers for use under the DP and to all SCs which, depending on the existence of Inter-Zonal Congestion, could be:
 - (i) the Preferred Hour-Ahead Schedules (when no Congestion was found at one hour ahead); or
 - (ii) modified Preferred Hour-Ahead Schedules for those SCs which had their Preferred Hour-Ahead Schedules for Energy modified for Inter-Zonal Congestion; and
- (d) the ISO will publish on WEnet the Hour-Ahead Usage Charge rate (in \$/MWh of scheduled flow) for Energy transfers between Zones, if any;
- (e) the ISO will provide, via WEnet, as part of the Final Hour-Ahead Schedules, schedules for Ancillary Services to the ISO's real time dispatchers for use under the DP and to the SCs which either:
 - (i) submitted Ancillary Services bids and which, as a result, have been selected to supply Ancillary Services; or
 - (ii) ~~specified submitted schedules~~ Inter-Scheduling Coordinator Ancillary Service Trades, or submitted schedules to self-provide Ancillary Services and which schedules have been validated by the ISO; and
- (f) each SC will provide the ISO, via a form and by means of communication specified by the ISO, resource specific information for all Generating Units and Curtailable Demands constituting its System Unit, if any, scheduled or bid into the ISO's Day-Ahead Market and/or Hour-Ahead Market for Ancillary Services.
- (g) the ISO will coordinate with adjacent Control Areas on the net schedules between the ISO Control Area and such other Control Areas. If the ISO and the operator of an adjacent Control Area have different records with respect to the net schedules, individual SC intertie schedules will be

examined. If the other Control Area operator's records were in error, no changes will be required by the ISO or SCs. If the other Control Area operator's records are determined to be correct, the ISO will notify the affected SC. The ISO will manually adjust the affected SC's schedule to conform with the other Control Area operator's net schedule, in real time, and the affected SC will be responsible for managing any resulting Energy imbalance.

Scheduling Protocol

SP 4.1

Overview

- (a) A SC must ensure that each Schedule it submits to the ISO is a Balanced Schedule in which aggregate Generation and external imports (adjusted for Transmission Losses) and Inter-Scheduling Coordinator Energy Trades equals the aggregate Forecast Demand and external exports. The ISO will, for this purpose, specify GMMs for each Energy supply source (Generating Units and external imports at Scheduling Points) to account for the Energy lost in transmitting power from Generating Units and/or Scheduling Points to Load. Inter-Scheduling Coordinator Energy Trades will not be subject to such adjustments, beyond the impact of GMMs on the respective SC's Generation and external imports. The ISO will, in accordance with this SP 4, derive a location specific GMM for each Generating Unit and external import on the ISO Controlled Grid.
- (b) At all times, the ISO will make available GMMs for the seven Trading Days starting with the Trading Day after the next Trading Day. Each day, at 6:00 pm, the ISO will calculate and publish, via WEnet, the GMMs applicable to the Day-Ahead Markets and the Hour-Ahead Markets for the eighth (8th) Trading Day forward. In other words, if the current Trading Day is day 0, the ISO will publish at 6:00 pm today, via WEnet, the GMMs for Trading Days 2 through 8. On Trading Day 1, at 6:00 pm, the ISO will drop the GMMs for Trading Day 1 and add the newly calculated GMMs for Trading Day 9, with the GMMs for Trading Days 3 through 8 remaining the same.

Scheduling Protocol

SP 7.2.2 Prioritization of Transmission Uses

The following rules are designed to enable the ISO to honor Existing Contracts in accordance with Sections 2.4.3 and 2.4.4 of the ISO Tariff, except as may be limited by the operation of SP 7.4. Regardless of the success of the application of such rules, it is intended that the rights under Existing Contracts will be honored as contemplated by the ISO Tariff except as may be limited by the operation of SP 7.4. In each of the categories described in SP 7.2.1, the terms and conditions of service may differ among transmission contracts. These differences will be described by each Responsible PTO in the instructions submitted to the ISO in advance of the scheduling process in accordance with the SBP. In addition, Generation, Inter-Scheduling Coordinator [Energy](#) Trade imports or external imports in one Zone must be matched by an equal magnitude of Demand, Inter-Scheduling Coordinator [Energy](#) Trade exports or external exports in an adjacent Zone (see SP 7.2.3 for a summary of allowable linkages). Scheduling and curtailment priorities associated with each category will be defined by SCs through the use of Adjustment Bids submitted as part of their Schedules as described in the following (see the SBP for a more general description of the use of Adjustment Bids to establish priorities within Existing Contracts and to establish priorities for Reliability Must-Run Generation):

- (a) Transmission capacity for Schedules will be made available to holders of firm Existing Rights and firm Non-Converted Rights in accordance with this SP and the terms and conditions of their Existing Contracts. In the event that the firm uses of these rights must be curtailed, they will be curtailed on the basis of “high priced Adjustment Bids”. So as not to be curtailed before any other scheduled use of Congested Inter-Zonal Interface capacity, these high priced Adjustment Bids must fall within a range to be specified by the ISO (for example, a difference of \$9,000/MWh to \$10,000/MWh for Demand or external exports and a difference of -\$9,000/MWh to -\$10,000/MWh for Generation or external imports). This range will be reserved strictly for use in association with the prioritization of firm Existing Rights and firm Non-Converted Rights to use available Inter-Zonal Interface transmission capacity. These high priced Adjustment Bids are only for the ISO’s use, in the context of Congestion Management, in recognizing the various levels of priority that may exist among the scheduled uses of firm transmission service. These high priced Adjustment Bids will not affect any other rights under Existing Contracts. To the extent that the MW amount exceeds the MW amount specified in the Existing Contract, the excess scheduled amount will be treated as a new firm use of ISO transmission services as described in (b) below. Note that, in some instances, for a particular Inter-Zonal Interface, there may be multiple SCs submitting Schedules under several different Existing Contracts on behalf of several Existing Contract rights holders. In these circumstances, and to the extent the rights holders desire to coordinate the prioritization of their firm uses of the Inter-Zonal Interface (i.e., attribute high priced Adjustment Bids, within the specified range, to each Schedule), their SCs will make the arrangements among themselves ahead of the ISO’s scheduling

process. In the absence of an Adjustment Bid, the ISO will treat the scheduled use of transmission service as a “price-taker” of ISO transmission service subject to Usage Charges.

- (b) ISO transmission service (i.e., “new firm uses”) will be priced in accordance with the ISO Tariff. Usage Charges associated with the ISO’s Congestion Management procedures, as described in SP 10, will be based on Adjustment Bids which do not fall within either of the ranges specified in (a) above or (c) below. In the absence of an Adjustment Bid, the ISO will treat the scheduled “new firm use” of ISO transmission service as a price taker paying the Usage Charge established by the highest valued use of transmission capacity between the relevant Zones.
- (c) Transmission capacity will be made available to holders of conditional firm Existing Rights and conditional firm Non-Converted Rights in a manner similar to that done prior to the ISO Operations Date; that is, allocated, as available, based on the agreed priority. The levels of priority will be expressed in the Schedules in terms of “near-zero priced Adjustment Bids”. Adjustment Bids with the lowest near-zero price will be treated with the lowest priority. These near-zero priced Adjustment Bids must fall within a range to be specified by the ISO (for example, a difference of \$0.001/MWh to \$0.009/MWh). This range will be reserved strictly for use in association with the prioritization of conditional firm Existing Rights and conditional firm Non-Converted Rights to use available Inter-Zonal Interface transmission capacity. These near-zero priced Adjustment Bids are only for the ISO’s use, in the context of Congestion Management, in recognizing the various levels of priority that may exist among the scheduled uses of conditional firm transmission service. These near-zero priced Adjustment Bids are not intended to affect any other rights under Existing Contracts, nor are they intended to subordinate the ISO’s scheduling of firm uses. To the extent that the MW amount exceeds the MW amount specified in the Existing Contract, the excess scheduled amount will be treated as a new firm use of ISO transmission services as described in (b) above. Note that, in some instances, for a particular Inter-Zonal Interface, there may be multiple SCs submitting Schedules under several different Existing Contracts on behalf of several Existing Contract rights holders. In these circumstances, and to the extent the rights holders desire to coordinate the prioritization of their conditional firm uses of the Inter-Zonal Interface (i.e., attribute near-zero priced Adjustment Bids, within the specified range, to each Schedule), their SCs will make the arrangements among themselves ahead of the ISO’s scheduling process. In the absence of an Adjustment Bid, the ISO will treat the scheduled use of transmission service as a “price-taker” of ISO transmission services subject to Usage Charges.
- (d) Transmission capacity will be made available to holders of non-firm Existing Rights and non-firm Non-Converted Rights in a manner similar to that done prior to the ISO Operations Date; that is, treated as the lowest valued use of available transmission capacity. Non-firm uses of transmission capacity under Existing Contracts will be indicated in Schedules submitted by SCs as \$0.00/MWh Adjustment Bids.

SP 7.2.3 Allowable Existing Contract Linkages

As indicated in SP 7.2.2, Generation, Inter-Scheduling Coordinator Energy Trade imports or external imports in one Zone must be matched by an equal magnitude of Demand, Inter-Scheduling Coordinator Energy Trade exports or external exports in the same Zone or in an adjacent Zone. The table below summarizes the allowable linkages.

Generation	Demand
Generation	External Export
Generation	Inter-SC <u>Energy</u> Trade Export
External Import	Demand
External Import	External Export
External Import	Inter-SC <u>Energy</u> Trade Export
Inter-SC <u>Energy</u> Trade Export	Demand
Inter-SC <u>Energy</u> Trade Export	External Export
Inter-SC <u>Energy</u> Trade Export	Inter-SC <u>Energy</u> Trade Export
<u>Inter-SC Ancillary Service Trade</u>	<u>Inter-SC Ancillary Service Trade</u>

Scheduling Protocol

SP 9.1 Bid Evaluation and Scheduling Principles

The ISO will evaluate Ancillary Services bids based on the following principles:

- (a) the ISO will not differentiate between bidders other than through reserve (Regulation and Operating Reserves) price and capability to provide the reserve service, and the required locational mix of services;
- (b) to minimize the costs to users of the ISO Controlled Grid, the ISO will select the bidders with lowest bids for reserve which meet its technical requirements, including location and operating capability;
- (c) the ISO will (to the extent available) procure sufficient Ancillary Services to meet its technical requirements as defined in the ASRP;
- (d) the ISO will evaluate and price only those Ancillary Services bids received in accordance with the SBP;
- (e) the ISO will require SCs to honor their Day-Ahead Ancillary Services schedules and/or bids when submitting their Hour-Ahead Ancillary Services schedules and/or bids. ~~(i.e., if a SC bids (or, conversely, self-provides) a specific Ancillary Service in a Settlement Period in the Day-Ahead Market, that SC will not be allowed to self-provide (or, conversely, bid) the same Ancillary Service in the same Settlement Period in the Hour-Ahead Market, except for any difference between its Day-Ahead and Hour-Ahead requirements for the same Ancillary Service for the same Settlement Period, in which case if the capacity which the SC wishes to bid or self provide is greater in the Hour-Ahead Market than in the Day-Ahead Markets, the difference can be either bid or self-provided. If capacity which the SC wishes to provide in the Hour-Ahead Market is less than the capacity which it sold to the ISO in the Day-Ahead Market the SC may buy back the difference from the ISO in the Hour-Ahead Market. A Scheduling Coordinator who has sold or self-provided Regulation, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve capacity to the ISO in the Day-Ahead Market shall be required to replace such capacity to the extent scheduled self-provision is decreased between the Day-Ahead and Hour-Ahead Markets, or to the extent the Ancillary Service associated with a Generating Unit, Curtailable Demand, or System Resource successfully bid in a Day-Ahead Ancillary Service Market is reduced in the Hour-Ahead Market, for any reason (other than the negligence or willful misconduct of the ISO). The price for such replaced Ancillary Service shall be at the Hour-Ahead Market Clearing Price in the Hour-Ahead Market for the same Settlement Period for the Ancillary Service capacity concerned.;~~ Increases in each Scheduling Coordinator's self-provided Ancillary Services between the Day-Ahead and Hour-Ahead Markets shall be limited to the estimated incremental Ancillary Service requirement associated with the increase between the Day-Ahead and Hour-Ahead Markets in that Scheduling

Coordinator's scheduled Zonal Load. Notwithstanding this limit on increases in Hour-Ahead self-provision, a Scheduling Coordinator may buy or sell Ancillary Services through Inter-Scheduling Coordinator Ancillary Service Trades in the Hour-Ahead Market;

- (f) due to the design of the ISO's scheduling software, the ISO will not take into account Usage Charges in the evaluation of Ancillary Services bids or in price determination and, in the event of Congestion in the Day-Ahead Market or Hour-Ahead Market, Ancillary Services will be procured and priced on a Zonal basis; and
- (g) due to the design of the ISO's scheduling system, any specific resource can bid to supply a specific Ancillary Service or can self-provide such Ancillary Service but cannot do both in the same Settlement Period.

Scheduling Protocol

SP 9.3 Scheduling Ancillary Services Resources

- (a) SCs are allowed to self-provide all or a portion of the following Ancillary Services to satisfy their obligations to the ISO:
 - (i) Regulation;
 - (ii) Spinning Reserve;
 - (iii) Non-Spinning Reserve; and
 - (iv) Replacement Reserve.
- (b) The ISO will reduce the quantity of Ancillary Services it competitively procures by the corresponding amount of the Ancillary Services that SCs self-provide.
- (c) The ISO shall prepare supplier schedules for Ancillary Services (both self-provided and purchased by the ISO) for the Day-Ahead Market and the Hour-Ahead Market.
- (d) The Ancillary Services schedules shall contain the information set out in the SBP for each Settlement Period of the following Trading Day in the case of the Day-Ahead schedules or for a specific Settlement Period in the case of Hour-Ahead schedules.
- (e) Once the ISO has given SCs notice of the Day-Ahead and Hour-Ahead schedules, these schedules represent binding commitments made in the reserve markets between the ISO and the SCs concerned. ~~However, a Scheduling Coordinator who has sold Regulation, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve capacity to the ISO in the Day-Ahead Market may buy back that capacity in whole or in part from the ISO in the Hour-Ahead Market~~ A Scheduling Coordinator who has sold or self-provided Regulation, Spinning Reserve, Non-Spinning Reserve or Replacement Reserve capacity to the ISO in the Day-Ahead Market shall be required to replace such capacity to the extent scheduled self-provision is decreased between the Day-Ahead and Hour-Ahead Markets, or to the extent the Ancillary Service associated with a Generating Unit, Curtailable Demand, or System Resource successfully bid in a Day-Ahead Ancillary Service Market is reduced in the Hour-Ahead Market, for any reason (other than the negligence or willful misconduct of the ISO). The price for such replacement shall be at the Zonal Market Clearing Price in the Hour-Ahead Market for the Ancillary Service for the Settlement Period concerned for the Zone in which the Generating Unit or other resources on behalf of which the Scheduling Coordinator buys back the capacity, are located. The ISO will purchase the Ancillary Service concerned from another Scheduling Coordinator in the Hour-Ahead Market in accordance with the provisions of the ISO Tariff.

- (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)).

Scheduling Protocol

SP 10.2 Congestion Management Process

- (a) Inter-Zonal Congestion Management will involve adjusting Schedules to remove potential violations of Inter-Zonal Interface constraints, minimizing the redispatch cost, as determined by the submitted Adjustment Bids that accompany the submitted Schedules. See the SBP for a general description of the use of Adjustment Bids to establish priorities.
- (b) Inter-Zonal Congestion Management will not involve arranging or modifying trades between SCs. Each SC's portfolio will be kept in balance (i.e., its Generation plus external imports, as adjusted for Transmission Losses, and Inter-Scheduling Coordinator [Energy Trades](#) (whether purchases or sales) will still match its Demand plus external exports) after the adjustments. Market Participants will have the opportunity to trade with one another and to revise their Schedules during the first Congestion Management iteration in the Day-Ahead Market, and between the Day-Ahead Market and Hour-Ahead Market.
- (c) Inter-Zonal Congestion Management will also not involve the optimization of SC portfolios within Zones (where such apparently non-optimal Schedules are submitted by SCs). Adjustments to individual SC portfolios within a Zone will be either incremental (i.e., an increase in Generation and external imports and a decrease in Demand and external exports) or decremental (i.e., a decrease in Generation and external imports and an increase in Demand and external exports), but not both.
- (d) If Adjustment Bids are exhausted before Congestion is eliminated, the remaining Schedules will be adjusted *pro rata* except for those uses of transmission service under Existing Contracts, which are curtailed in accordance with SP 7.3 and SP 7.4.