

California Independent System Operator Corporation  
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**28. Inter-SC Trades**

**28.1 Inter-SC Trades Of Energy**

**28.1.1 Purpose**

Scheduling Coordinators submit Inter-SC Trades of Energy consistent with the provisions in this Section 28.

**28.1.2 Availability Of Inter-SC Trades Of Energy**

The CAISO allows Inter-SC Trades of Energy at individual PNodes of Generating Units and unique Aggregated Pricing Nodes of Physical Scheduling Plants within the CAISO Balancing Authority Area and at Aggregated Pricing Nodes that are either defined Trading Hubs or Default LAPs. The CAISO does not allow Inter-SC Trades of Energy at Scheduling Points. The CAISO allows submission of Inter-SC Trades of Energy in the DAM and the HASP. Inter-SC Trades of Energy submitted for the DAM are settled at the hourly DAM LMP at the applicable Aggregated Pricing Nodes or PNodes. Inter-SC Trades of Energy submitted in the HASP are settled hourly based on the simple average of the RTM Dispatch Interval LMPs at the applicable Aggregated Pricing Nodes or PNodes.

**28.1.3 Submission Of Inter-SC Trades Of Energy**

A Scheduling Coordinator may submit Inter-SC Trades of Energy that it intends to have settled based on DAM LMPs at any time during the Day-Ahead Inter-SC Trade Period and may submit Inter-SC Trades of Energy for a particular hour that it intends to have settled based on the simple average of the RTM Dispatch Interval LMPs during that hour at any time during the HASP Inter-SC Trade Period.

**28.1.4 Information Requirements**

An Inter-SC Trade of Energy must consist of trades from both Scheduling Coordinators and contain the following information: (i) the Scheduling Coordinator ID Code (SCID) of the Scheduling Coordinator from which the Energy is traded; (ii) the SCID of the Scheduling Coordinator to which the Energy is traded; (iii) the location of the Energy trade; (iv) the CAISO Market the trade is to be settled in; (v) the time period over which the bilateral Energy trade will

take place, including the start-date and Trading Hour and the end-date and Trading Hour; and (vi) the quantity (MWh) of the Energy traded.

#### **28.1.5 General Validation Rules For Inter-SC Trades**

For all Inter-SC Trades of Energy the CAISO shall verify that the Scheduling Coordinators for the Inter-SC Trade of Energy mutually agree on the quantity, location, time period, and CAISO Market (for pricing purposes, i.e., DAM or RTM) for settling the Inter-SC Trade of Energy. Any individual Inter-SC Trade of Energy that is deemed invalid by the CAISO due to inconsistencies between the trading Scheduling Coordinators on these terms will be rejected. The CAISO will notify trading Scheduling Coordinators within a reasonable time if their Inter-SC Trades of Energy fail these general validation rules as described in the Business Practice Manuals.

#### **28.1.6 Validation Procedures For Physical Trades**

All Inter-SC Trades at PNodes and all Inter-SC Trades of Physical Scheduling Plants at their unique Aggregated Pricing Nodes will be subject to validation procedures as specified in this Section. Physical Trades can occur at any individual Generating Unit's PNode or a Physical Scheduling Plant's Aggregated Pricing Node provided the Physical Trade satisfies the CAISO's Physical Trades validation procedures described herein. The Scheduling Coordinators must demonstrate that the trade is supported (directly or through an Inter-SC Trade of Energy with another Scheduling Coordinator) by a Day-Ahead Schedule or HASP Advisory Schedule for a Generating Unit or Physical Scheduling Plant at the same location for the Inter-SC Trade of Energy at a level greater than or equal to the amount of the Inter-SC Trade of Energy. The CAISO's validation procedures for Physical Trades include three components: (1) Physical Trade submittal screening, (2) Physical Trade pre-market validation, and (3) Physical Trade post-market confirmation.

##### **28.1.6.1 Physical Trade Submittal Screening**

The CAISO's Physical Trade validation procedures begin upon initial submission of a Physical Trade to the CAISO. The first stage of that process, Physical Trade submittal screening, validates that the submitted Physical Trade does not exceed the PMax of the identified

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Generating Unit or Physical Scheduling Plant. The CAISO will reject Physical Trades that exceed the PMax and notify the responsible Scheduling Coordinators.

**28.1.6.2 Physical Trade Pre-Market Validation**

The purpose of the pre-market validation is to determine whether the total MWh quantity of all submitted Physical Trades at a PNode of an individual Generating Unit or the Aggregated Pricing Node of a Physical Scheduling Plant exceeds the resource's Energy Bid MWh. Pre-market validation is performed on all Physical Trades that pass the submittal screening set forth in Section 28.1.6.1. Scheduling Coordinators are notified within a reasonable time of their Physical Trades status as the CAISO conducts the pre-market validation to indicate, at a minimum, whether the Physical Trade is currently "conditionally valid", "conditionally invalid", or "conditionally modified." These Physical Trade notices are preliminary and subject to change until the final pre-market validation at the close of the relevant Inter-SC Trade Period. A Physical Trade with a "conditionally valid" or "conditionally modified" status may be rendered "conditionally invalid" due to the actions of the Scheduling Coordinators to that Physical Trade or by other trading activities that are linked to the Generating Unit identified for the relevant Physical Trade whenever the quantities specified in the relevant Inter-SC Trades cannot be supported by the underlying Bid. Scheduling Coordinators can use these status notices to make modifications to complete or correct invalid Physical Trades. The CAISO also performs cyclic pre-market validation prior to the close of the relevant Inter-SC Trade Period. Physical Trades that are individually valid are concatenated (daisy chained) with other supporting Physical Trades at the same PNode or Aggregated Pricing Node of the Generating Unit or Physical Scheduling Plant. Once that concatenation is complete, the CAISO will determine whether the concatenated Physical Trades are physically supported by either another Inter-SC Trade of Energy at that same location or the Bid submitted in the relevant CAISO Market on behalf of the resource for that Physical Trade, individually and in the aggregate. If a Physical Trade is not adequately physically supported, the quantities in the Physical Trades of that Scheduling Coordinator and its downstream trading counter-parties are reduced on a pro-rata basis until those Physical Trades are valid. In performing physical pre-market validation of Inter-SC Trades of Energy in HASP, the

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CAISO also considers final Inter-SC Trades of Energy for the DAM in determining whether the HASP Physical Trades are physically supported individually or in the aggregate. Specifically, the CAISO determines whether the resource's submitted Bid in HASP is greater than or equal to the sum of: (1) final Day-Ahead Inter-SC Trades of Energy at that location, (2) the additional Inter-SC Trades of Energy for the HASP at that location and (3) the sum of all upward Day-Ahead Ancillary Services Awards at that location. If the amounts are greater than the resource's submitted Bids in HASP, the CAISO will adjust down on a prorated basis the HASP Physical Trades. Final Day-Ahead Physical Trades are not adjusted in the HASP pre-market validation. The CAISO does not perform any Settlement on Physical Trade quantities (MWh) that are curtailed during Physical Trade pre-market validation.

**28.1.6.3 Physical Trade Post-Market Confirmation**

The CAISO conducts post-market confirmation of Physical Trades that pass pre-market validation in Section 28.1.6.2 after the Market Clearing and the market results are posted to ensure that the Generating Unit or Physical Scheduling Plant has a Schedule that can support all of the Physical Trades. During the post-market confirmation process, the MWh quantity of Physical Trades that passed the CAISO's pre-market validation process may be reduced if the resource supporting the Physical Trades has a Day-Ahead Schedule or HASP Advisory Schedule that is, on average, below the quantity of Physical Trades at that Location. The MWh quantities of Physical Trades that are reduced during the post-market confirmation process are settled at the Existing Zone Generation Trading Hub price for the Existing Zone associated with the resource identified in the Inter-SC Trade of Energy. The portion of Physical Trades that remains intact will be settled at the relevant LMP for the identified PNode for the Generating Unit or Aggregated Pricing Node for the Physical Scheduling Plant.

**28.1.6.4 Inter-SC Trades of Energy at Aggregated Pricing Nodes**

Inter-SC Trades of Energy at Aggregated Pricing Nodes that are also defined Trading Hubs or Default LAPs are subject to the general validation procedures in Section 28.1.5 but are not subject to the three-stage physical validation procedures for Physical Trades described in Section 28.1.6 above.

## **28.2 Inter-SC Trades Of Ancillary Services**

Inter-SC Trades of Ancillary Services enable a Scheduling Coordinator to transfer any fixed quantity of Ancillary Services (MW) to another Scheduling Coordinator. An Inter-SC Trade of AS shall consist of a quantity in MWs traded between two Scheduling Coordinators for a specific hour and for a specific Ancillary Service type. The Inter-SC Trade of AS is a financial trade. The CAISO shall charge and pay the two parties of the trade based on the quantity (MW) of the Ancillary Service Obligation traded times the user rate for the Ancillary Service trades for the Trading Hour. Scheduling Coordinators may submit Inter-SC Trades of Ancillary Services for Regulation Up, Regulation Down, Spinning and Non-Spinning Reserves.

### **28.2.1 Information Requirements**

An Inter-SC Trade of Ancillary Services shall contain the following information: (i) the Scheduling Coordinator ID Code (SCID) for the Scheduling Coordinator from whom the MW amounts of Ancillary Service is traded; (ii) the SCID for the Scheduling Coordinator to whom the MW amounts of AS is traded; (iii) the type of AS being traded; (iv) the time period over which the trade will take place, including the start-date and time and the end-date and time; and the (v) quantity (MW) of the AS to be traded.

### **28.2.2 Validation**

The CAISO's validation of Inter-SC Trades of AS will begin upon submission of an Inter-SC Trade of AS. The CAISO shall conduct a final validation for Inter-SC Trades of AS at the end of the HASP Inter-SC Trade Period. The CAISO will validate each submitted Inter-SC Trade of AS to verify that the contents of the submission match the submittal by the counter-party Scheduling Coordinator by type (Regulation Up, Regulation Down, Spinning Reserve and Non-Spinning Reserve), quantity (MW), and time period. The CAISO will inform the submitting Scheduling Coordinators regarding the validity of a submitted trade of an AS and will allow the Scheduling Coordinator to resubmit the entire Inter-SC Trade of AS if it is not accepted. If only one of the two Scheduling Coordinators successfully submits an Inter-SC Trade of AS, the CAISO will notify both Scheduling Coordinators that the Inter-SC Trade of AS for the specific hour does not match the corresponding Inter-SC Trade of AS. If both Scheduling Coordinators successfully submit the

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Inter-SC Trade of AS, the CAISO will notify the Scheduling Coordinators that their Inter-SC Trade of AS for the specific hour has been accepted. An Inter-SC Trade of Ancillary Services submitted at a later time, but before the deadline for the submission of the trade for the Trading Hour, renders a previously submitted Inter-SC Trade of AS invalid if it applies to the same hour, same type of AS, and the same Scheduling Coordinators to whom and from whom the AS is traded.

**28.2.3 Submission Of Inter-SC Trades Of Ancillary Services**

Scheduling Coordinators may submit Inter-SC Trades of Ancillary Services at any time during the HASP Inter-SC Trade Period.

**28.3 Inter-SC Trades Of IFM Load Uplift Obligation**

Scheduling Coordinators may submit system-wide Inter-SC Trades of IFM Load Uplift Obligations from within the CAISO Balancing Authority Area. Inter-SC Trades of IFM Load Uplift Obligations enable a Scheduling Coordinator to transfer any amount of net IFM Load Uplift Obligation (MW) to another Scheduling Coordinator. An Inter-SC Trade of IFM Load Uplift Obligation shall consist of a quantity in MWs traded between two Scheduling Coordinators for a specific Trading Hour of the IFM.

**28.3.1 Information Requirements**

An Inter-SC Trade of IFM Load Uplift Obligation shall contain the following information: (i) the Scheduling Coordinator ID Code for the Scheduling Coordinator from whom the MW amounts of IFM Load Uplift Obligation is traded; (ii) the Scheduling Coordinator ID Code for the Scheduling Coordinator to whom the MW amounts of IFM Load Uplift Obligation is traded; (iii) the applicable Location of the Inter-SC Trade of IFM Load Uplift Obligation; (iv) the time period over which the trade will take place, including the start-date and time and the end-date and time; and (v) the quantity (MW) of the IFM Load Uplift Obligation to be traded.

**28.3.2 Validation**

The CAISO's validation of Inter-SC Trades of IFM Load Uplift Obligations will begin upon submission of an Inter-SC Trade of IFM Load Uplift Obligation. The CAISO shall conduct a final validation for Inter-SC Trades of IFM Load Uplift Obligations at the end of the HASP Inter-SC Trade Period. The CAISO will validate each submitted Inter-SC Trade of IFM Load Uplift

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Obligation to verify that the contents of the submission match the submittal by the counter-party Scheduling Coordinator in terms of quantity (MW), and time period. The CAISO will inform the submitting Scheduling Coordinators regarding the validity of a submitted Inter-SC Trade of IFM Load Uplift Obligation and will allow the Scheduling Coordinator to resubmit the entire Inter-SC Trade of IFM Load Uplift Obligation if it is not accepted. If only one of the two Scheduling Coordinators successfully submits an Inter-SC Trade of IFM Load Uplift Obligation, the CAISO will notify both Scheduling Coordinators that the Inter-SC Trade of IFM Load Uplift Obligation for the specific hour does not match the corresponding Inter-SC Trade of IFM Load Uplift Obligation. If both Scheduling Coordinators successfully submit the Inter-SC Trade of IFM Load Uplift Obligation, the CAISO will notify the Scheduling Coordinators that their Inter-SC Trade of IFM Load Uplift Obligations for the specific hour has been accepted. The CAISO will verify that an Inter-SC Trade of IFM Load Uplift Obligation is between different Scheduling Coordinators that are authorized to participate in the CAISO Markets during the time period covered by the trade and that the Trading Hour and the quantity of the trade must be greater than or equal to zero. An Inter-SC Trade of IFM Load Uplift Obligation submitted at a later time renders a previously submitted Inter-SC Trade of IFM Load Uplift Obligation invalid if it applies to the same hour and the same Scheduling Coordinators to whom and from whom the net IFM Load Uplift Obligation is traded.

**28.3.3 Submission Of Inter-SC Trades Of IFM Load Uplift Obligation**

Scheduling Coordinators may submit Inter-SC Trades of IFM Load Uplift Obligations at any time during the HASP Inter-SC Trade Period.