### Timeline

Inter-SC Trades for the Day-Ahead Market may be submitted beginning seven days prior to the Trading Day up to 1100 hours the day prior to the Trading Day. Inter-SC Trades for the Real-Time Market may be submitted beginning at midnight the day prior to the Trading Hour up to 45 minute prior to the Trading Hour.

The timeline for submission and validation of Energy IST is shown in Exhibit 9-1.

Exhibit 9‑1: Timeline of Inter-SC Trades

| **Stages** | **Day-ahead Timeline** | **Real-time Timeline** | **Activities** |
| --- | --- | --- | --- |
| 1 | Up to seven days prior to the Trading Day  Only ISTs for Energy (both PHY and APN) are submitted into the DAM. | Beginning at 12:00 a.m. the day prior to the Trading Hour  ISTs for Energy (APN and PHY) as well as ISTs for Ancillary Services and IFM Load Uplift Obligation are submitted. | SCs continuously submit ISTs before Inter-SC Trade Close Time and Bids before Market Close time to CAISO.  CAISO continuously screens each submitted IST to check contents and search for matching IST submitted by the counterparty SC. CAISO provides feedback to the SCs regarding the validity of the ISTs based on the information that is available to CAISO at that time. |
| 2 | Between 0600 hours and 1100 hours of the day prior to the Trading Day. | Between T-180 and T-45 min (the Inter-SC Trade Close Time for IST submission in the RTM) | SCs continuously submit ISTs before Inter-SC Trade Close Time and Bids before Market Close time to CAISO.  CAISO continuously screens each submitted IST to check contents and search for matching IST submitted by the counterparty SC.  CAISO performs pre-market validation to evaluate and adjust PHYs if necessary, based on Generator Unit Energy Bids at pre-specified time intervals (e.g., every 20 minutes, and at the Inter-SC Trade Close Time).  CAISO provides feedback to the SCs about the validity of the ISTs based on the information that is available to CAISO at the time. |
| 3 | 1300 hrs (approximately) | At T-47 min (approximately) | CAISO performs post-market validation of the ISTs based on the IFM or RTM results, and converts invalid portions of PHYs to Converted Physical Trades.  The timing of this event is dependent on the receipt of the Market Results (DA/RT(HASP)). |

During the Day-Ahead IST Trading period (which closes at 1100 hours), CAISO notifies SCs if their submitted IST does not have a counterparty. At 1100 hours, CAISO rejects any ISTs for the Day-Ahead Market that do not have a matching counterparty. For PHYs, CAISO adjusts the quantity of ISTs if necessary, based on the Generating Unit Bid in the DAM, on which the PHY is dependent. (Note: For Multi-Stage Generating Resources that may be used in a PHY Trade as the location, the maximum quantity of the Energy Curve or Self-Schedule on the highest Configuration will be used in the validation for the PHY Trade).

Beginning at 0600 hours CAISO conducts pre-market validation on PHYs based on the Bids reflecting the dependent Generating Unit. SCs are sent warnings if necessary that their Inter-SC Trades may be adjusted at the close of the market. PHY Trades that are not supported by a market accepted bid will be adjusted to 0. Pre-market validation continues to run every 20 minutes until Inter-SC Trade market close time of1100 hours.

When the DAM clears, at approximately 1300 hours, CAISO conducts a post-market validation on Day-Ahead PHYs, based on the final DAM results from the IFM. Any portion of a PHY, where the dependent Generating Unit’s final Day-Ahead Schedule is less than the PHY trade amount becomes a Converted Physical Trade (CPT). CAISO informs the SC of the amount of the CPT.

SCs may submit Inter-SC Trades for the RTM from 0000 hours of the day prior to the Trading Day up to 45 minutes prior to Market Close (Real-Time IST Trading Period). During the Real-Time IST Trading Period, CAISO validates the ISTs for content as well as searching for the matching IST submitted by the designated counterparty. Beginning at T-180 up until T-45, CAISO conducts pre-market validation every 20 minutes based on the Bid reflecting the Generating Unit. SCs are warned that their Inter-SC Trades may be adjusted at the close of the market. At T-45, CAISO rejects any Inter-SC Trades that do not have a matching counterparty.

CAISO conducts a post-market validation using the HASP awards once the RTM has closed. Any invalid quantities where the dependent Generating Unit’s Real-Time Dispatch Instructions do not cover the PHY amount becomes a CPT. CAISO informs the SC of the amount of the CPT.

Example of PHY Trade Validation (simplified):

**Trade A** PHY Trade Qty= **100MW** (using a resource “Res\_1” as the location).

**Res\_1** has a Bid/Schedule = **80MW**

Pre-cyclic validation runs to see the 80MW submitted and adjusts the “**Trade A”** PHY Trade Qty = **80MW**.

Market results are returned to SIBR from IFM; “**Res\_1”** clears with **50MW** instead of the bid in 80MW.

Post-cyclic validation runs and now sees the 50MW award for “Res\_1” and does the following:

Adjusts “**Trade A”** PHY Trade Qty = **50MW**

Generates the **CPT** for “**Trade A”** Trade Qty = **30MW** (difference between adjusted Trade Qty and IFM award with the Trading Location at the Trading Hub.

So the IFM Award of 50MW plus the generated CPT of 30MW = the Adjusted Trade quantity of the Pre-cyclic validation.

This works the same way for the RTM with the exception that during the Pre Cyclic Validation there is also a check for any DA Trade Qty on the PHY Trade using the Resource.

Using the example above as a result of the DA Trade where the PHY “Trade A” is awarded 50MW.

**“Trade A”** (RTM) PHY Trade Qty= **50MW** (using “Res\_1” as the location).

**Res\_1** has a Bid/Schedule = **80MW**

Pre Cyclic Validation runs to see the 80MW submitted and also the DA Trade at that location for 50MW. So the bid = 80MW minus (-) the DA Trade at that location = 50MW results in an adjusted trade quantity for “**Trade A”** (RTM) PHY Trade Qty = **30MW**.

It would then follow the same process for the Post Cyclic Validation to see if any CPT would be generated.