CALIFORNIA ISO

California Independent
System Operator

Pricing and Settlement of Inter-ties in HASP

Market Surveillance Committee Meeting

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Problem Statement

- How to price and settle the ties in HASP/real-time
- How to allocate the costs

Pricing Options

Option 1: Develop a separate hourly pre-dispatch clearing price for settling incremental and decremental energy at interties. The hourly predispatch price is a simple average of 15 minute prices for the next operating hour **(CAISO Proposal)**

Option 2: Pay and charge predispatch as bid (current Phase 1b short term solution)

Option 3: If there is congestion on an intertie, settle pre-dispatches at the pre-disaptch price. Otherwise settle based on real-time price plus hourly uplift, as needed to ensure bid cost recovery (LECG's recommendation)

Option 4: Price pre-dispatched imports partly at the pre-dispatch price and partly at real-time price based on whether the import is used to serve the export or the real-time load. (BPA proposal)

Pre-Dispatch (PD) & Real-Time (RT) Costs

Payments for total net incremental purchases for PD and RT:

- **PD Purchases = *Sum over all ties***
  [(net PD incremental MWh) * (PD Price)]
- **RT Purchases = *Sum over all internal resources***
  [(net RT incremental dispatch MWh) * (RT Price)]

Charges to total Net Negative Uninstructed Deviations (NNUD):

- **Charges to underscheduled load = *Sum over all load deviations* [(underscheduled load MWh * LAP Price)]**
- **Charges to overscheduled generation = *Sum over all internal resources* [(overscheduled generation MWh * RT price)].**

The difference between system wide net incremental (PD + RT) and NNUD in terms of MWh and $ are defined as M and N:

- **MWh Imbalance (M) = *System-wide* (net PD import MWh + net RT incremental MWh – NNUD)**
- **Imbalance (N) = *System-wide* [(PD Purchases + RT Purchases) – (Charges to underscheduled load and overscheduled generation)].**

Cost Allocation Options

Option 1: Allocate N to Metered Demand

Option 2: (CAISO's Proposal)

If N is a net revenue ➔ Allocate N to Metered Demand

If N is a net charge and:

- **M <=0** ➔ Allocate N to NNUD only.

- **M >0** ➔ Allocate N in two tiers:
  Tier 1 to NNUD (at a computed Tier 1 rate) and
  Tier 2 to Metered Demand based on over-procured energy.

Requested MSC Action

- Questions, Comments, Concerns?