



California ISO

Regional Issues Forum

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EIM Overview

- Real-Time Market for Participating Balancing Authority Areas (BAAs)
- What is included in EIM?
 - Fifteen-minute Nodal market
 - Five-minute Nodal market
 - Unit Commitment and Economic Dispatch
 - Scheduling and Security Constraints
- What is not included in EIM?
 - Ancillary Services
 - Contingency Dispatch

EIM Constraints

- Scheduling Limits
 - EIM Transfers Scheduling Resources (ETSR) limits
 - Total EIM Transfer Limit
- Security Constraints
 - Transmission Constraint
 - Thermal limits
 - Contingency modelling
 - Loss of a line.
 - Nomograms

Nodal Pricing

- Locational Marginal Price (LMP)
 - System Marginal Energy Price
 - Incremental price for energy for the system
 - Marginal Congestion component
 - Represents price of congestion for binding constraint
 - Marginal Loss Component
 - Represents price of marginal loss
 - Green House Gas (GHG) Component
 - Represents the marginal price for Ghg



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Marginal Cost of Congestion Settlement

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Real Time Market Settlement

- Fifteen Minute Market (FMM) Settlement
 - FMM imbalance energy and the relevant FMM LMP
 - Differences between FMM schedule and day ahead/base schedule
- Real Time Dispatch (RTD) Settlement
 - RTD imbalance energy, both RTD instructed and uninstructed, and and relevant RTD LMP
 - Difference between meter and FMM schedule
 - Load uninstructed imbalance energy and RTM LAP LMP
 - Difference between metered demand and day ahead/base schedule
 - Unaccounted for Energy settles at the relevant RTM LAP LMP

RTM Marginal Cost of Congestion

- What is the congestion rents available for distribution?
 - Calculate the amount of congestion collected or paid at each nodal or aggregated nodal location
 - Generation and intertie instructed (FMM or RTD) and uninstructed energy and the relevant MCC price
 - Uninstructed energy of Load and the relevant RTM LAP MCC price
 - Unaccounted for energy of Load and the relevant RTM LAP MCC price

RTM Marginal Cost of Congestion (MCC)

- Who should be allocated the RTM congestion amount
 - Allocated to a Balancing Authority Areas based upon the association with binding constraints (shift factor)
 - Internal constraint congestion is allocated Balancing Authority area in which constraint resides
 - Shared congestion is distributed to Balancing Authority area based relationship to EIM Transfer constraint