Market Operations and Settlements Areas Affected by SCED and LPC

MIC Special Session
Five Minute Dispatch
and Pricing

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IMM

Monitoring Analytics

Effects of RT SCED and LPC Misalignment

- **The misalignment between the RT SCED target dispatch interval and the LPC assigned pricing interval creates a number of discrepancies in the market.**
- **Discrepancies in**
  - **Market operations through RT SCED**
    - Interactions between RT SCED, IT SCED, ASO, Markets Gateway, and ExSchedules
  - **Settlements use of RT SCED and LPC data**
    - MW from RT SCED interval, prices from LPC interval
    - Uplift calculations

Market Operations

- **Use of offer data**
  - **RT SCED uses hourly offer data for the hour of the target dispatch interval, 10 minutes ahead.**
    - Hourly differentiated offers
    - Intraday offer updates
    - Hourly parameters
  - **At the end of the hour, LPC assigns prices that use the next hour's data to the present time interval.**

Market Operations

- **Use of regulation and reserve commitments**
  - **RT SCED uses regulation and reserve commitments from the ASO for the hour of the target dispatch interval, 10 minutes ahead.**
  - **At the end of the hour, regulation assignments are changed in LPC.**
- **Nonsynchronized reserve supply curves are calculated using the opportunity cost in ITSCED, not RTSCED.**
  - **RT SCED uses the IT SCED data, 10 minutes ahead, to calculate prices, which are applied to the current interval in LPC.**

Settlements

- **Energy, reserve, and regulation prices are calculated by LPC.**
- **Where settlements uses dispatch MW for energy and reserves, they come from RT SCED cases.**
  - **There is more than one approved RT SCED case for each settlement interval.**
  - **The RT SCED case used by settlements for MW does not match the one used by LPC to calculate prices for the same settlement interval.**

Reserve Settlements

- Reserve dispatch instructions from RT SCED
  - Not all approved RT SCED cases make it to settlements.
  - Reserves provided may not be paid.
- Reserve LOC payments use MW from an approved RT SCED case for the target dispatch interval, but prices from the LPC assigned interval.
  - Reserve prices do not use the LOC based on RT SCED's cooptimization for the settlement interval.
  - Results in higher uplift LOC payments.
  - Flexible tier 2 reserve LOC payments are directly caused by the misalignment of dispatch and pricing intervals.

Settlements

- **Uplift LMP Desired MW is based on LPC prices.**
  - **Resources are following the RT SCED dispatch MW for the interval, which comes from a different market interval solution.**
  - **The calculation of the dispatch following metric used to assign deviations for charging uplift is inaccurate.**
- **Interchange schedules are settled and enter RT SCED based on the target dispatch time.**
  - **The schedules' effects on prices come through LPC, which is assigned to an earlier interval.**

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