Briefing on transmission service and market scheduling priorities and day-ahead market policy initiatives

Joint ISO Board of Governors and WEIM Governing Body meeting
General Session
December 14, 2022
TRANSMISSION SERVICE AND MARKET SCHEDULING PRIORITIES

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Regional Markets Sector Manager
Wheeling through scheduling priority

- This initiative seeks to develop a durable design for establishing market scheduling priorities associated with transactions wheeling through the ISO system.

- Current interim design expires ahead of Summer 2024
  - Imposes requirements that must be met for wheeling through transaction to establish scheduling priority equal to ISO load.
  - Requires demonstration of a contract to serve load and delivery of the supply on firm transmission for the month to the ISO system.

- Entities unable to meet the requirements above can continue to wheel through the ISO system, but the transactions have a low scheduling priority (can be curtailed ahead of high priority transactions).
Proposed scheduling priority design

- The ISO will calculate available transfer capability on the interties which can be reserved in advance to establish wheeling through scheduling priority equal to ISO load
  - Available transfer capability would be calculated across at 13-month horizon and daily horizon

- In calculating available transfer capability, the ISO will set aside transmission capacity for native load needs
  - Native load needs estimated based upon historical contracted imports (shown on resource adequacy plans and non-resource adequacy contracted imports)

- Introduction of process to request wheeling through scheduling priority on a long-term basis through transmission studies and ability to pursue upgrades across the ISO system
Transmission service and market scheduling priorities milestones

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<td>Publication of draft final proposal</td>
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<td>December 14, 2022</td>
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<td>December 16, 2022</td>
<td>Stakeholder meeting on draft final proposal</td>
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<td>January 4, 2023</td>
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<td>February 2023</td>
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<td>End of Q2 2023</td>
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Greg Cook
Executive Director, Market and Infrastructure Policy

DAY-AHEAD MARKET ENHANCEMENTS
Proposal provides critical enhancements to address increasing net load uncertainty

- Growing dependence on weather-sensitive resources increases uncertainty and variability in net load
  - System operators have to manage a wide range of possible outcomes, which creates operational risk

- System operators are relying on out-of-market actions to reserve additional supply in the day-ahead market to manage this reliability risk

- A new day-ahead market product is needed that procures flexible reserves to cover net load uncertainty
Proposal introduces a new day-ahead market product called “imbalance reserves”

- Co-optimized with energy and ancillary services to optimize unit commitment and system ramping capability
  - Results in marginal price signal that reflects when and where flexible reserves are most valued in the system
  - Optimized based on bid-in costs

- Ensures the real-time market has sufficient ramping capability to respond to uncertainty and variability
  - Imbalance reserves procure both up and down dispatch capability
  - 15-min dispatchable and based on 15-minute ramp capability

- Market ensures reserves are feasible and can be deployed without violating transmission constraints
Day-ahead market enhancements also improves the residual unit commitment (RUC) process

• RUC assures there are sufficient physical resources online to meet the day-ahead demand forecast
  – The day-ahead financial market (integrated forward market) clears based on bid-in demand and virtual bids
  – Imbalance reserves are procured above/below the day-ahead forecast

• RUC will have the ability to procure downward dispatch capability

• RUC procurement will be competitive across the extended day-ahead market (EDAM) by allowing resource adequacy resources to bid
Day-ahead market products when load forecast is greater than physical supply
A day-ahead uncertainty product unlocks regional market benefits

- Geographic diversity reduces the day-ahead imbalance reserves each EDAM balancing area needs to procure to meet their individual uncertainty needs

- Larger market footprint allows for more efficient selection of flexible resources

- Builds confidence in EDAM transfers through a reliable day-ahead market solution
Stakeholder process addressing several issues related to the design of the new imbalance reserve product

- Local market power mitigation for imbalance reserves and reliability capacity
- Accounting for energy costs in imbalance reserve procurement
- Nodal versus zonal procurement of imbalance reserves
- Interplay between resource adequacy capacity contracts and potential new market revenues
- Imbalance reserve penalty prices
- WEIM Governing Body authority (joint and advisory authority)
Management recommends ISO Board of Governors consider adjustment of the WEIM Governing Body role

- Stakeholder comments indicate support for joint approval over the entire proposal

- Could be appropriate given the unique nature of the initiative
  - Foundational to the EDAM
  - Imbalance reserve product drives a significant portion of the potential EDAM benefits
Day-ahead market enhancements milestones

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<td>November 2022 – January 2023</td>
<td>Draft tariff publication and stakeholder process</td>
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