WESTERN ENERGY IMBALANCE MARKET (WEIM)

Briefing on transmission service and market scheduling priorities and dayahead market policy initiatives

Joint ISO Board of Governors and WEIM Governing Body meeting General Session December 14, 2022 Milos Bosanac Regional Markets Sector Manager

TRANSMISSION SERVICE AND MARKET SCHEDULING PRIORITIES





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

Date	Milestone
December 8, 2022	Publication of draft final proposal
December 14, 2022	Joint ISO Board of Governors and WEIM Governing Body meeting (briefing)
December 16, 2022	Stakeholder meeting on draft final proposal
January 4, 2023	Stakeholder comments on draft final proposal
February 2023	ISO Board of Governors and WEIM Governing Body meeting (decision)
End of Q2 2023	Tariff development and file at FERC

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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

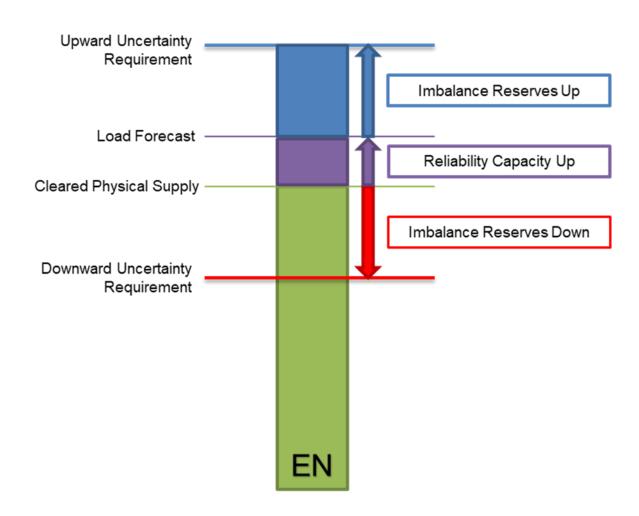
Proposal introduces a new day-ahead market product called "imbalance reserves"

- 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

Date	Milestone
December 1, 2022	Publication of draft final proposal
December 14, 2022	Joint ISO Board of Governors and WEIM Governing Body meeting (briefing)
February 2023	Joint ISO Board of Governors and WEIM Governing Body meeting (decision)
November 2022 – January 2023	Draft tariff publication and stakeholder process
Fall 2023	FERC filing
Fall 2023	Implementation activities
TBD	DAME go-live coordinated with EDAM

