

WESTERN ENERGY IMBALANCE MARKET

Briefing on intertie deviation settlement proposal

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Management proposes to revise the intertie transaction non-delivery charge to provide increased assurance that market participants deliver imports and exports

- Charge applies to ISO intertie transactions with other balancing authority areas
 - Does not apply to transfers resulting from EIM dispatches
 - EIM Governing Body advisory role
- Non-delivery affects reliability and pricing
- Existing charge is ineffective
- Revised charge provides increased incentive to deliver intertie energy
 - Will yield more accurate market inputs and increase reliability

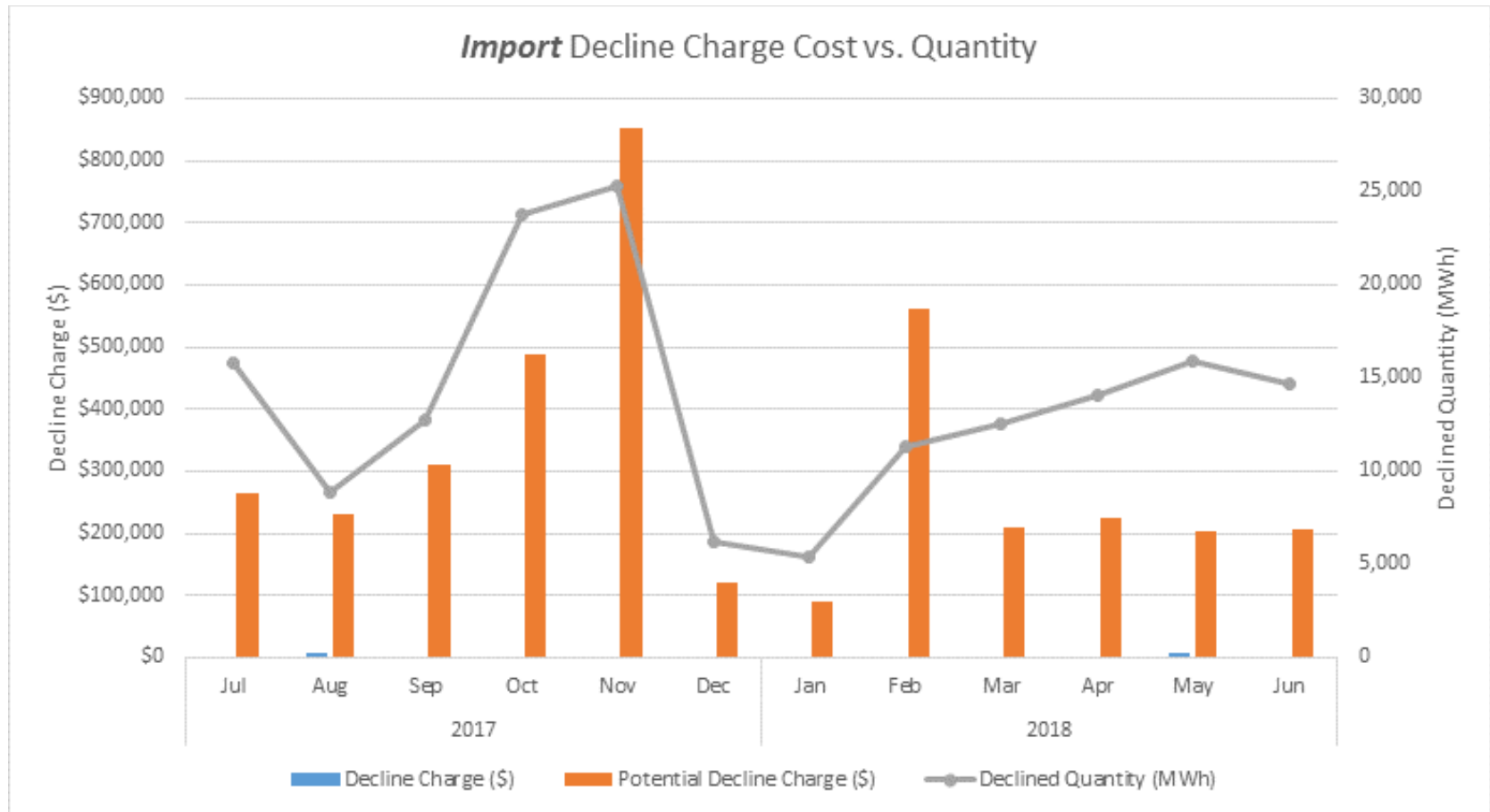
Background: Intertie schedules account for a significant amount of the ISO balancing authority area's supply cleared in the real-time market

- ISO schedules intertie transactions in the hour-ahead scheduling process and the 15-minute market
 - The hour-ahead scheduling process at the top of the hour initially schedules both hourly block and 15-minute intertie transactions for the next hour
 - The 15-minute market produces final schedules and prices 22.5 minutes before each 15-minute interval
 - Final delivery accomplished by market participant completing E-Tag at 20 minutes before the operating hour or 15-minute interval
 - Imbalance energy charges may apply if not delivered
- Intertie schedules can account for up to approximately 25% of the ISO balancing authority area's supply

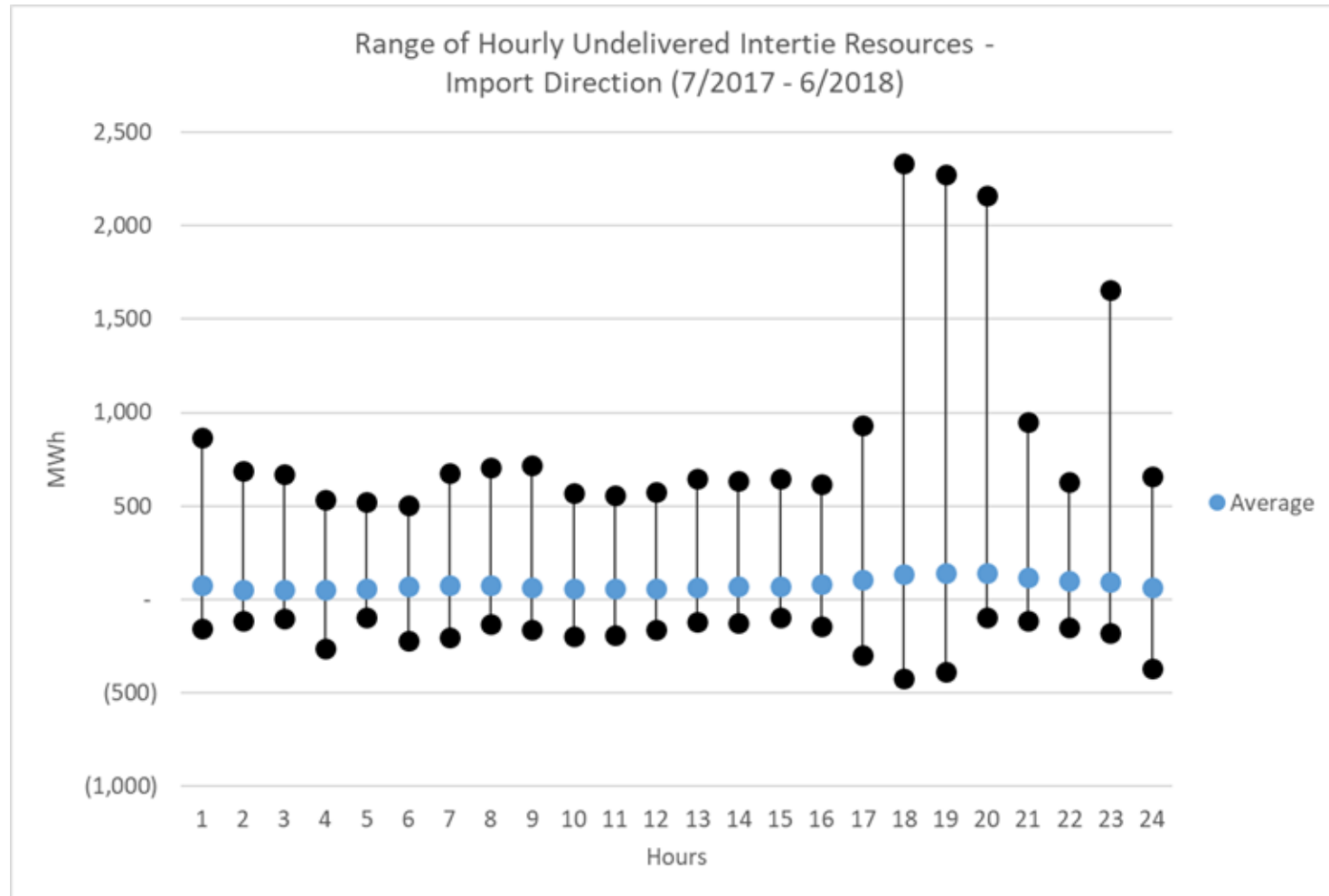
Undelivered intertie transactions adversely impact ISO grid stability and market pricing

- Non-deliveries affect reliability because supply the market is counting on does not materialize
 - The market cannot clear additional intertie transactions until the next hour
 - Within the 15-minute interval, the 5-minute real-time dispatch must compensate for the additional energy with less available supply
- Non-deliveries are detrimental to the market
 - Result in higher prices for all market participants because the market has to replace the undelivered energy
 - Undelivered intertie transactions displace other intertie bids from the hour-ahead scheduling process that could have been delivered
 - Undelivered exports can cause intertie congestion

The existing non-delivery charge is ineffective because of a monthly 10% threshold, which is rarely exceeded



Undelivered imports can reach significant amounts, especially during the peak load hours



Proposed non-delivery charge strengthens incentives to deliver intertie transactions

1. Curtailed schedules will be excluded from the non-delivery charge, which allows for removing the 10% threshold
2. The non-delivery charge will be evaluated in each fifteen-minute interval
3. 15-minute market schedules will be based on preliminary E-Tag with “transmission profile” submitted before 15-minute market runs
4. Non-delivery will be subject to a charge equal to 50 percent of the maximum of the 15-min market or the 5-min real-time dispatch LMP, with a \$10/MWh minimum, plus any imbalance energy charges

Most stakeholders support the proposal, stating it will:

- Reduce “speculative bidding” behavior
- Increase operational awareness and enhance reliability
- Improve the accuracy of EIM resource sufficiency test

Some stakeholders question the need for separate non-delivery charge in addition to imbalance energy settlement

- Intertie energy is “surplus energy” and is not needed for reliability because the ISO has resource adequacy requirements
 - Response: intertie resources that economically clear the ISO market are needed for reliability as they can displace resource adequacy capacity from being available in real-time (e.g., RA imports and uncommitted internal RA resources).
- Intertie resources should be treated like internal generation that just pays the 5-minute price for deviations
 - Response: intertie schedules require the use of transmission capacity that is reserved on an hourly basis

Market Surveillance Committee (MSC) supports charge framework, but believes the ISO must also address market inputs that affect real-time market intertie prices

- High hour-ahead scheduling process prices and lower 15-min and 5-min prices may provide incentive to not deliver
- MSC urges further analysis of role of operator load forecast adjustments and intertie exceptional dispatches in intertie pricing
- Management commits to analyzing and addressing intertie pricing in conjunction with implementing non-delivery charge
 - Management believes non-delivery charge should be implemented hand-in-hand with process improvements

Management recommends the EIM Governing Body support this intertie deviation settlement proposal

- Non-delivery charge provides greater assurance that intertie schedules will be delivered
 - Reduces the need for operator load forecast adjustments and intertie exceptional dispatches
 - Improves accuracy of market pricing
- New fifteen-minute market logic and non-delivery charge improve accuracy of EIM resource sufficiency evaluation inputs
 - Intertie schedules will only count towards passing the flexible ramping test if preliminary E-Tag with “transmission profile” is submitted
 - Scheduled imports will be more likely to be delivered