



EIM Resource Sufficiency Evaluation

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Market Design Policy

Stakeholder Call
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ISO proposes resource sufficiency evaluation improvements in response to stakeholder comments

- EIM Offer Rules workshops held on April 30 and July 19, 2018
 - EIM Resource Sufficiency Evaluation
 - EIM Mitigation and default energy bid options
- Some resource sufficiency evaluation improvements can be implemented quickly through the BPM change process
- EIM Mitigation is being addressed as a new initiative

Fifteen-min freeze for flexible ramping test failures can be implemented with BPM changes by end of 2018

- Current test evaluates ramp intervals from last 15-min interval of proceeding operating hour to each 15-min interval of current operating hour
 - If any of the four ramp tests are failed, EIM transfers are limited
- ISO proposes to evaluate each ramp individually
 - If a ramp test is failed, EIM transfers will be limited to the previous 15-min interval schedule just for the corresponding interval

Introduction of a 1% tolerance band for the flexible ramping test can be implemented with BPM changes by end of 2018

- Currently EIM entities will fail the flexible ramping test even if requirement is not met by an inconsequential MW value (i.e. 0.5 MW)
- ISO proposes a 1% (or 1MW, whichever is greater) tolerance band
 - If ramping capability for one of the four ramping tests is within the tolerance band, EIM transfers will not be limited
- 1% tolerance band aligns with the current balancing test to determine if under/over scheduling penalties apply

Fifteen-min granularity for balancing and capacity tests will be implemented with the *DAME* initiative

- Balance test will be performed for each fifteen-minute interval and corresponding over/under scheduling penalties will be applied to that 15-min interval
- Capacity test will be performed for each fifteen-minute interval and failure will result in limiting EIM transfers to previous fifteen-min interval value
- Require tariff changes and will be implemented with DAME Phase1 in the fall of 2020

Use of new approach to calculate flexible ramping requirement can be implemented with a BPM change

- Stakeholders have suggested the flexible ramping requirement be calculated based on forecasted load, wind and solar
- Currently, the ISO uses a histogram to determine the requirement
- ISO is investigating alternate approaches to calculate the requirement
- Tariff change is not required
 - Implementation date must be known prior to starting the BPM change process

CAISO undelivered intertie resources will be addressed in the *Intertie Deviation Settlement* initiative

- Stakeholders have raised concern that the ISO is counting undelivered imports towards the resource sufficiency evaluation
- The CAISO has declined to implement bid source verification:
 - This standard would be greater than other EIM entities
 - EIM Y1 Phase 2 clarified that E-Tags approval (i.e. E-Tag can be pending) is not needed for submission of base schedules used in the resource sufficiency evaluation
- Problem is specific to ISO hourly block resources and is being addressed in the *IDS* initiative
- *RA Enhancements* initiative will address delivery of resource adequacy on the interties

The ISO is providing additional metrics regarding the resource sufficiency evaluation in the MPPF

- Per stakeholder request, the ISO has already published data related to the frequency of resource sufficiency evaluation failures for each BAA
 - See August 29, 2018 MPPF
- ISO plans to develop additional metrics that will be published and discussed at the MPPF on December 11, 2018

The ISO will not permit use of available balancing capacity (ABC) in the resource sufficiency evaluation

- Available balancing capacity (ABC) is intended to resolve infeasibilities for each EIM BAA individually, where as flexible ramping product is used to address uncertainty across the entire EIM footprint
- The ISO tariff explicitly states ABC will not count towards the resource sufficiency evaluation
 - Purpose of ABC was discussed as a part of a FERC proceeding

Holistic review of the resource sufficiency evaluation will occur in the *EDAM* initiative

- Extending the day-ahead market to the EIM (EDAM) will require a day-ahead resource sufficiency evaluation
- A day-ahead resource sufficiency evaluation must align with the real-time evaluation
- The EDAM stakeholder process will begin in the middle of 2019 and will include a holistic review of the resource efficiency evaluation to ensure alignment across the day-ahead and real-time markets

The ISO has appreciated stakeholder engagement to develop these enhancements

- Fifteen-minute freeze and tolerance band for flexible ramping test will be implemented by the end of 2018
- Additional improvements will be presented to stakeholder in separate initiatives
- Holistic review will occur with the EDAM initiative