

EIM Body of State Regulators Monthly Update

Letha Tawney
Alaine Ginocchio

Teleconference February 12, 2021



Agenda

• Welcome

Commissioner Letha Tawney, BOSR Chair

 Performance of EIM Resource Sufficiency Evaluation During 2020 Heat Wave

Presentation: Jeff Spires, Powerex

Response: Mark Rothleder, CAISO

- Discussion of BOSR Comments

 Alaine Ginocchio, Western Interstate Energy Board
- Next Steps and Announcements Commissioner Tawney



Introduction

- The purpose of the EIM Resource Sufficiency Evaluation is to ensure each EIM entity can adequately balance their own supply and demand prior to participating in the energy imbalance market.
- An analysis of operations under the tight conditions experienced in the Summer of 2020 revealed that the Resource Sufficiency Evaluation is not working as intended.



Expedited Initiative

- CAISO has opened an expedited initiative to implement market changes in June 2021 to ensure reliability during the upcoming summer, including a review of the EIM Resource Sufficiency Evaluation
- Straw Proposal January 27, 2021
- Final Comments due February 25
- To Governing Body March 10 and CAISO Board March 25
- June 2021 Implementation



BOSR Comments

- Last round for comments: deadline Thursday, February 25, 2021
- Today discuss EIM Resource Sufficiency Evaluation
- If the BOSR decides to submit comments, staff will draft comments based on today's discussion and distribute draft comments to the BOSR on Wednesday, February 17.
- Work through remaining issues via email and comments on the draft comment document



February 12, 2021

Jeff Spires
Director, Power

EIM Resource Sufficiency Evaluation EIM Body of State Regulators Monthly Update

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What is the EIM Resource Sufficiency Evaluation?

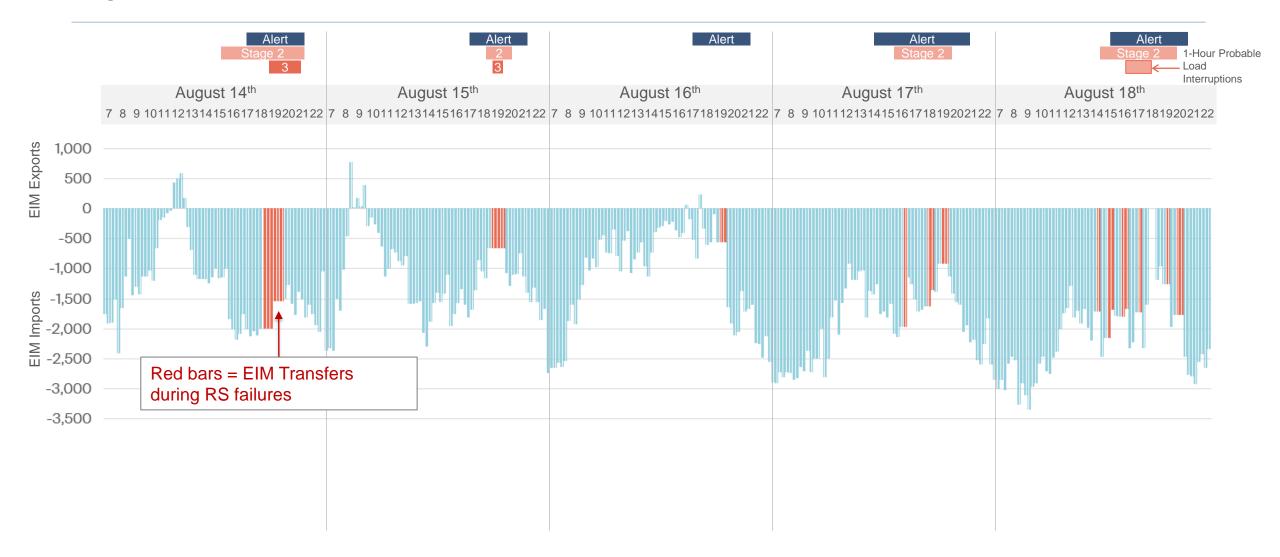
- The EIM Resource Sufficiency Evaluation (RSE) is performed 40 minutes before each operating hour (prior to EIM dispatch)
- The RS evaluation includes several components, with two key verifications:
 - Bid Range Capacity Test (BRCT)
 - Does each BAA have enough <u>capacity</u> to meet its load and other BAA obligations?
 - 2. Flexible Ramping Sufficiency Test (FRST)
 - Does each BAA have enough <u>flexibility</u> to move its resources to respond to changes in system conditions?

Why is EIM Resource Sufficiency Important?

- A well-designed RS framework is critical to ensure that each BAA has enough supply to meet its
 own needs on a stand-alone basis, net of a calculated EIM "diversity benefit"
- Supports reliability
 - Ensures the EIM footprint as a whole is resource sufficient
 - Prevents a shortfall in one BAA from adversely impacting another
- Prevents leaning on capacity <u>and</u> flexibility
 - Ensures entities that are short do not avoid/reduce forward procurement
 - Supports equitable sharing of diversity benefits
- Fundamental question: Is the EIM RS Test meeting these objectives?

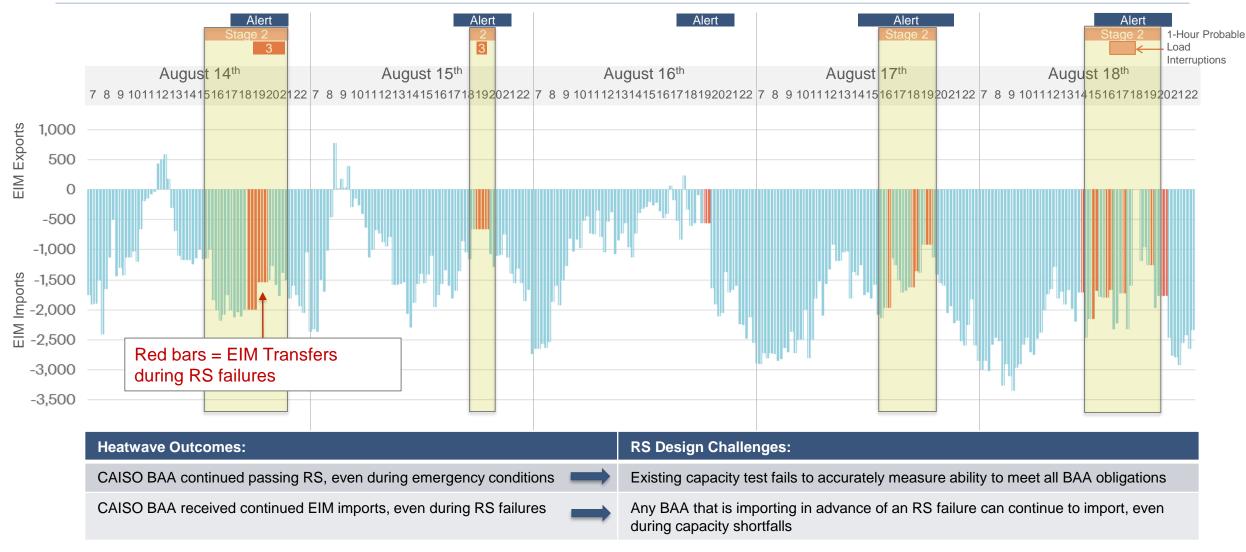
EIM Transfers to CAISO BAA During August Heatwave (1/2)

August 14th -18th, 2020

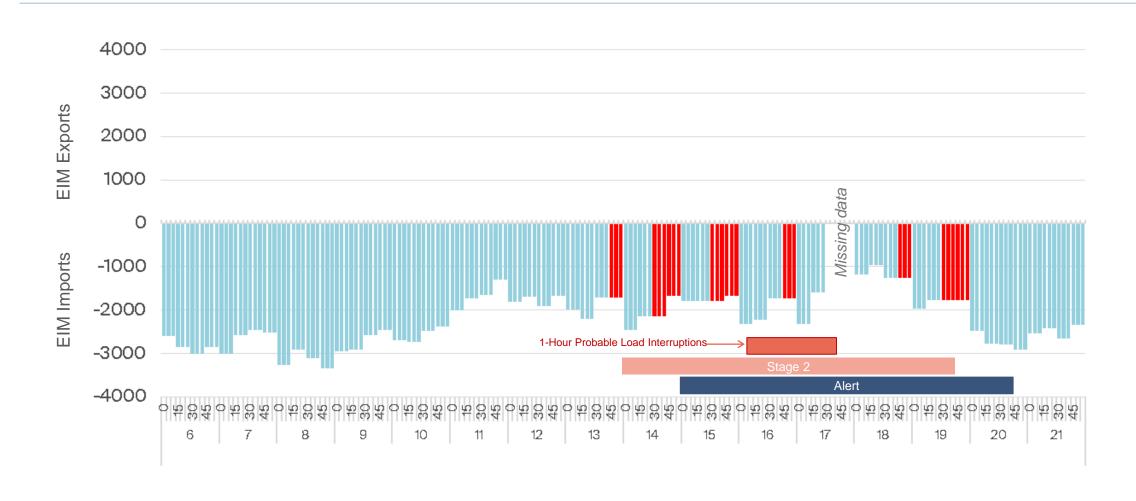


EIM Transfers to CAISO BAA During August Heatwave (2/2)

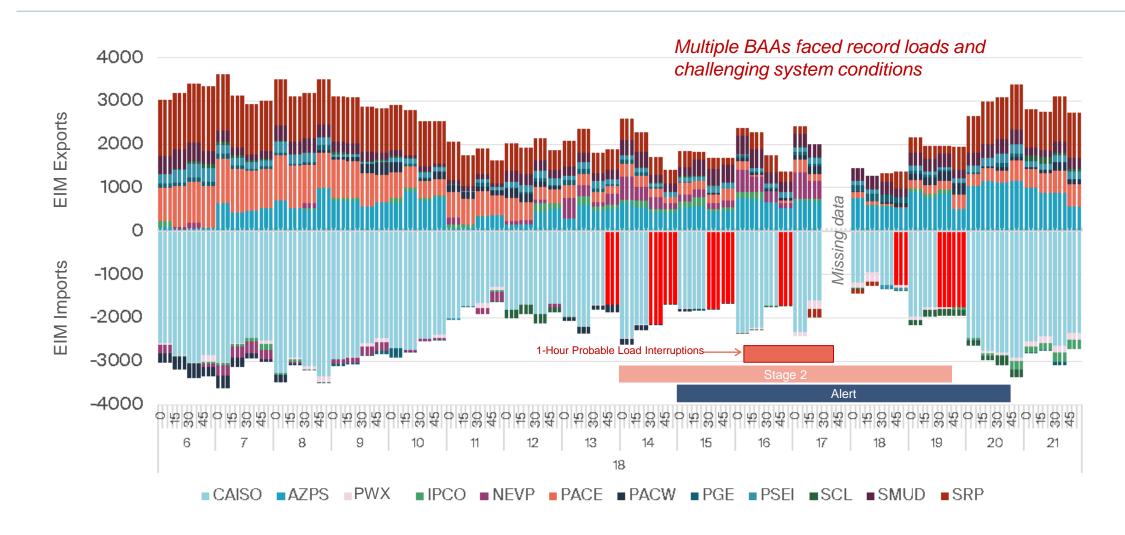
August 14th -18th, 2020



Examining EIM Transfers During Reliability Challenges (1/2) August 18th, 2020 (Peak Load in WECC)



Examining EIM Transfers During Reliability Challenges (2/2) August 18th, 2020 (Peak Load in WECC)



Resource Adequacy Gaps Place CAISO In A Difficult Position

Long-term (> 1 Year)

Seasonal & Monthly Contracting

Day-Ahead Bilateral Contracting

EIM

Entities That Are Resource Adequate

- Sales of surplus firm capacity and energy products
- Delivered for all on-peak hours of the season/month/day
- As grid tightens, prices rise above marginal cost of production

Resource Sufficient

Entities That Are
Not Resource Adequate

- Procure forward firm capacity and energy products
- Bear cost for all on-peak hours of season/month/day
- As grid tightens, prices rise above marginal cost of production

Resource Sufficient

LSEs in CAISO BAA

Not Resource Adequate

- RA requirements too low, results in insufficient forward purchases of forward capacity/energy products by LSEs
- Purchases include supply not supported by real physical capacity
- But CAISO BAA bears operational consequences, not the LSEs

Not Resource Sufficient

- CAISO forced to "fill the gap" for LSEs through EIM imports
- EIM market prices reflect variable production cost of marginal unit

Economic Consequences of EIM Capacity Leaning

- Results in significant economic inequities between ratepayers
 - o External entities' ratepayers shoulder the cost of building and/or procuring sufficient resources
 - RA fleet in CAISO BAA is inadequate; CAISO BAA is forced to rely on EIM imports
 - o Ratepayers in CAISO BAA benefit from purchasing EIM energy one hour at a time at much lower prices
- The estimated value to LSEs filling an RA gap with EIM imports of 2,000 MW is substantial:

Benchmark Value	Description
\$140 Million	Premium for Q3 forward firm energy at Palo Verde (relative to forward price at CAISO SP-15)
\$151 Million	Cost of forward procurement for one year at CAISO's CPM Soft Offer Cap (\$75.68/kW-year)
\$214 - \$342 Million	Based on SPP's Financial Penalty for RA deficiencies in summer season

EIM Resource Sufficiency Must be Addressed

- During peak hours of August heatwave:
 - EIM imports were clearly not being used to back down more expensive resources in the CAISO BAA
 - EIM imports were being used to partially fill California's RA capacity shortfall
- Resource Sufficiency is a foundational principle of EIM
 - EIM should not be a tool for addressing LSEs' long-term capacity challenges
- Solutions should include improved oversight and reporting to the EIM Governing Body to ensure the RS test is accurate, effective and being applied equitably to all BAAs
 - o Advise on the design and implementation of a fair and transparent EIM RS test
 - On-going verification that the RS test is accurately applied and effectively prevents leaning



Thank You

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Principle 1: The objective of the EIM Resource Sufficiency Evaluation is to ensure that all BAAs participating in the EIM have sufficient resource capacity to meet their demand obligations prior to receiving the benefits of participation in the EIM.

- Resource sufficiency is a foundational principle of the EIM.
- Resource sufficiency establishes a level playing field for all EIM participants.
- BAAs need to be "fully resourced" prior to participating in the EIM.



Principle 2: Enhancements to the EIM Resource Sufficiency Evaluation should be of the highest priority.



Principle 3: The Bid Range Capacity Test (BRCT) should focus on whether a participating BAA has enough resource capacity to meet its demand obligations.

Design enhancements should be investigated to ensure:

- Supply resources included in the BRCT are confirmed physical resources and counted in a manner that is consistent with their actual operating capability.
- Demand reflects all BAA obligations including peak load, uncertainty and reserve obligations.



Principle 4: Failure consequences of the BRCT should provide a strong economic incentive for the BAAs to use forward procurement to acquire sufficient resource capacity to meet their demand obligations in advance of their participation in the EIM.

- Allowing BAAs that fail the BRCT to lean on the advance procurement of the BAAs that passed the test has the potential to spread the reliability problem to the other BAAs.
- Allowing BAAs that fail the BRCT to lean on the advance procurement of the BAAs that passed the test has the potential to impose significant economic harm on the other BAAs.



Next Steps

- Comments due Thursday, February 25, 2021
- Working with BOSR leaders, staff will draft comments based on today's meeting
- Staff will send draft comment document to BOSR for review by Wednesday, February 17
- BOSR will work through comments via email Feb. 17 23
- Final version will be submitted to GRC on Feb. 25



Upcoming BOSR Meetings

BOSR Monthly Update Teleconference

Second Friday of Every Month at 10:00 AM MT / 9:00 AM PT

Next Meeting: March 12, 2021 at 10:00 AM MT / 9:00 AM PT

BOSR Spring Meeting

TBD: April 2021

Webinar



Information or Questions

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