



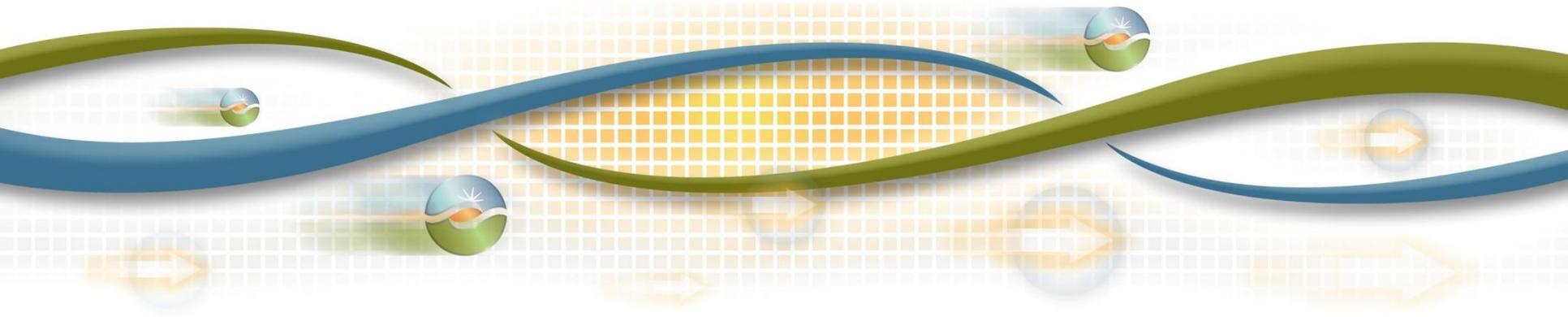
Market Simulation – Winter 2017 Release

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Sr. Change & Release Planner

Winter 2017 Release Market Simulation

January 4, 2018



Agenda

- Winter 2017 MAP Stage Availability
- Winter 2017 Market Simulation Initiatives and Timelines
- Winter 2017 Release Market Simulation Focus
- Initiatives -
 - Winter 2017 -
 - EIM Enhancements Winter 2017
 - RSI 2017
- Winter 2017 Known Issues
- Next Steps
- Reference Slides

Winter 2017 Release MAP Stage Availability

Current MAP Stage Scheduled Maintenance –

– None

MAP Stage Weekly Maintenance Window - Monday's 09:00 - Tuesday 09:00

Winter 2017 Release Market Simulation Initiatives and Timelines

| <u>Winter 2017 Release Initiatives</u> | <u>Start Date</u> | <u>Start Date (Trade Date)</u> | <u>End Date</u> | <u>Structured Simulation Start (Trade Date)</u> | <u>Expected Participation</u> |
|---|--------------------------|---------------------------------------|------------------------|--|--------------------------------------|
| <u>Winter 2017 Release Market Simulation</u> | | | | | |
| EIM Idaho Power Company | 12/01/17 | 12/01/17 | 01/31/18 | 12/6/17 | EIM Entities |
| EIM Powerex | 12/01/17 | 12/01/17 | 01/31/18 | 1/3/18 | EIM Entities |
| EIM Enhancements Winter 2017 | 12/01/17 | 12/01/17 | 01/31/18 | 1/10/18 | EIM Entities |
| Reliability Services Initiatives 2017 | 12/05/17 | 12/05/17 | 01/31/18 | 12/5/17 | ISO Market Participants |

Market Simulation Plan – <http://www.caiso.com/Documents/MarketSimulationPlan-Winter2017Release.pdf>

Winter 2017 Release Market Simulation Focus

| Week | Dates (Tuesday thru Friday, Monday is Maintenance) | Focus |
|------|--|--|
| 1 | 12/5-12/8 | <ul style="list-style-type: none"> • EIM Idaho Scenarios • RSI CIRA and OMS only - Structured |
| 2 | 12/12-12/15 | <ul style="list-style-type: none"> • EIM Idaho Scenarios • RSI CIRA and OMS only - Structured |
| 3 | 12/19-12/22 | <ul style="list-style-type: none"> • EIM Idaho Scenarios • RSI CIRA and OMS only - Unstructured |
| 4 | 12/26-12/29 (ISO Holiday 12/25-Monday) | <ul style="list-style-type: none"> • MAP-Stage available; unsupported • RSI CIRA and OMS only - Unstructured |
| 5 | 1/2-1/5 (ISO Holiday 1/1-Monday) | <ul style="list-style-type: none"> • EIM Powerex Scenarios • EIM Idaho Scenarios • RSI CIRA and OMS only - Unstructured |
| 6 | 1/9-1/12 | <ul style="list-style-type: none"> • EIM Winter 2017 Scenarios • EIM Powerex Scenarios • RSI CIRA and OMS only - Unstructured |
| 7 | 1/16-1/19 (ISO Holiday 1/15-Monday) | <ul style="list-style-type: none"> • EIM Powerex Scenarios • RSI/RAAIM End to End - Structured |
| 8 | 1/23-1/26 | <ul style="list-style-type: none"> • RSI/RAAIM End to End - Structured |
| 9 | 1/30-1/31 | <ul style="list-style-type: none"> • Unstructured Bid to Market Output |

EIM Enhancements Winter 2017

The EIM Enhancements Winter 2017 Market Simulation timeline –

EIM 2017: December 1 – January, 31 2018

Unstructured: December 1 – January 5, 2018

Structured: January 9 – January 12, 2018

Winter 2017 RSI

The Winter RSI Simulation timeline –

RSI 2017: December 5 – January 31, 2018

Structured: CIRA and OMS only December 5 – December 15; End to End January 16 – 19 and January 23 - 26, 2018

Unstructured: December 18 – January 12, 2018

- RSI Structured Scenarios - http://www.caiso.com/Documents/StructuredScenarios-Draft-ReliabilityServicesInitiative_2017.pdf
- RSI 2017 RA Plan (can also be downloaded from MAP-Stage CIRA) - http://www.caiso.com/Documents/ResourceAdequacyPlanTemplate_2018.xls
- RSI 2017 Supply Plan (can also be downloaded from MAP-Stage CIRA) - http://www.caiso.com/Documents/SupplyPlanTemplate_2018.xls
- **MPs to provision the new CIRA roles in AIM accordingly for your organization:**
 - app_cira_supplier_read_ext
 - app_cira_supplier_write_ext
 - AIM User Guide - http://www.caiso.com/Documents/AccessandIdentityManagement_AIM_UserGuide.pdf

Winter 2017 RSI (Cont'd)

Planned Outage Substitution Obligation (POSO) Testing

- The ISO will establish a combination of System and LSE RA Obligation to such extent that all LSEs and additionally the System RA obligation will not be met for the month of January 2018. This will enable participants to simulate the scenario where a POSO is assigned to the participant.
- As of 1/3, the ISO has reduced the peak obligation in MAP Stage for both the monthly January submittals and annual 2018 submittals.
- Monthly peak obligation for January:
 1. Initial state - The system peak obligation in Map Stage (based on prod data) was 30,361.21 MW
 2. ISO deleted the obligation for all LSEs other than the ones participating in Market Sim.
 3. The LSEs with RA plans submitted for January are listed below and the system peak obligation based on these LSE stands at 23,372.95 MW:
 - CALJ
 - CDWR
 - LRCEA
 - PCG2
 - RVSD
 - SCE1
 - SDG3
 4. ISO further reduced the system demand by 50% for each entity and now the system demand stands at 11,686.48 MW
- Annual peak obligation for 2018:
 1. Initial state – based on prod data, sum for all months = 418,232.83 MW
 2. ISO deleted all LSEs not participating in Mkt Sim
 3. New state with just the LSEs listed above, sum for all months = 326,774.82 MW
 4. ISO reduced for each LSE per month by 50% and now the sum for all months = 163,387.41 MW

Winter 2017 RSI (Cont'd)

Structured Scenarios Conditions and Setup (MAP Stage Timeline)

The following additional setup will be used by the ISO during the scenario execution.

1. MP's will need to provision the new CIRA roles in AIM, please provision these roles accordingly for your organization "app_cira_supplier_write_ext" and "app_cira_supplier_read_ext".
2. ISO will post NQC values for each month ahead of time, they will be Production values.
3. RA and Supply Plans should be submitted for December 2017 and January 2018 months. ISO will change the plans cutoff to accommodate the RA and Supply plans. **All plans are due by 12/06 for December and 12/15 January RA.**
4. For T-25 Outage Substitution testing (POSO) ISO will manually set the configuration to be T-15 for January RA month so the **POSO analysis would begin on 12/16 for January RA**. For December RA month please submit outages to test rolling outage analysis during the month and any other substitution scenarios.
 - *Outages can be submitted through the end of the trade month in keeping with existing/ production rules for planned versus forced outages. Substitutions will need to be provided for the planned outages that have POSO assigned to reduce the POSO obligation. Substitution will continue to follow the day-ahead cut-off criteria.*
 - *The POSO stack will be recomputed in a subsequent run (runs 4 times/day) as new planned outages are created and substitutions are provided for POSO assigned outages.*
5. MPs are required to submit planned and forced outages, these will be auto approved in OMS
6. MPs may bid in whatever resources they see fit for the scenario for RAAIM
7. ISO will run suitable modules and designate CPM's for the substitution scenario
 - a. ISO will ensure all new automated jobs are setup.
8. ISO will validate internal reports

Winter 2017 RSI (Cont'd)

Customer Training

- Will be scheduled for 1/10/18
- Market Notice will go out and session will be added to public calendar this week

CIRA User Guide

- To be published end of January

Winter 2017 Known Issues

| # | System | Summary | Status | Estimated Fix Date | CIDI # |
|---|--------|---|--------|--------------------|-------------------|
| 2 | CIRA | In 'Generic Obligation Report' and 'LSE Obligation Report' when ITIE data has RA for a subset of days, the system RA calculation should consider the Max RA for the ITIE resource for the month and instead is summing up the RA for the multiple rows when the RA is broken out by subset of days. | Open | TBD | 199966 |
| 3 | CIRA | ISO Policy team provided further clarification requiring additional system changes: (1) Currently, CIRA does not include the PRM % while determining capping for monthly obligation and this needs to change (2) Annual capping logic needs to be removed as well | Open | TBD | 200210, 200255 |

Next Steps

- The next teleconference will take place @ 14:00 PPT on Monday, January 8, 2018

Reference Slides

ISO Market Simulation Support

- **Hours** - 09:00 - 18:00, PST (Monday through Friday)
- **Mkt Sim Coordinator Phone** - (916) 351-2248
- **ISO's 24X7 Help Desk** - (916) 351-2309 (Connectivity - GUI or API)
- **Email** - MarketSim@caiso.com

Market Simulation Issue Management

- Submit all issues to the CIDI case management system.
- CIDI tickets will need to have “Functional Environment” = “**Market Simulation Winter 2017**” to be reviewed by ISO SME’s.

Winter 2017 Release Market Simulation Communication Plan

Schedule –

Mondays - December 4, 11, 18 and January 8, 22, and **Tuesdays** - January 2, 16, and **Thursdays** - December 7, 14, and January 4, 11, 18, 25.

Connection information –

Web Conference Information

Web Address (URL): <http://ems7.intellor.com/login/714714>

Audio connection instructions will be available after connecting to the web conference.

Telephone-Only Participation

Please only use this dial-in method if unable to participate by web to enhance the ability to participate in Q&A

Call in: 877-369-5230, Access Code: 0299083#

Technical Support

AT&T Connect support at 1-888-796-6118

ISO System Access Documentation

- http://www.caiso.com/Documents/SystemAccessInformation_MarketParticipants.pdf

ISO System Interface Change Summary

- <http://www.caiso.com/Documents/SystemInterfaceChangeSummary.pdf>