



Market Simulation – Independent 2018 & Spring 2019 Releases

Trang Deluca
Sr. Change & Release Planner

December 27, 2018

Recordings

Calls and webinars are recorded for stakeholder convenience, allowing those who are unable to attend to listen to the recordings after the meetings. The recordings will be publicly available on the ISO web page for a limited time following the meetings. The recordings, and any related transcriptions, should not be reprinted without the ISO's permission.

Agenda

- MAP Stage Availability
- Independent 2018 & Spring 2019 Releases Market Simulation Initiatives & Timelines
- Initiatives
 - Congestion Revenue Rights Auction Efficiency – 1B
 - Energy Imbalance Market 2019 Balancing Authority of Northern California / Sacramento Municipal Utility District
- Known Issues
- Next Steps

Independent 2018 & Spring 2018 Releases MAP Stage Availability

- Refer to MAP Stage portal <https://portalmap.caiso.com> for system availability information
- Current MAP Stage Scheduled Maintenance
 - None
- Upcoming MAP Stage Scheduled Maintenance
 - None
- MAP Stage Weekly Maintenance Window
 - Monday 0700 PT thru Tuesday 0900 PT

Independent 2018 & Spring 2019 Releases Market Simulation Initiatives & Timelines

<u>Independent 2018 release and Spring 2019 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>
CRR Auction Efficiency – 1B	11/5	11/5	12/18	11/19	ISO Market Participants EIM Market Participants
EIM 2019 BANC / SMUD	12/3	12/4	1/31	12/4	ISO Market Participants EIM Market Participants

Market Simulation Plan:

<http://www.caiso.com/Documents/MarketSimulationPlan-Independent2018-Spring2019Releases.pdf>

CRR Auction Efficiency – 1B

- **Timeline:** November 5 – December 18
 - Structured Scenarios TDs 11/19 & 11/20; and TDs 12/4 & 12/5:
<http://www.caiso.com/Documents/StructuredScenarios-CongestionRevenueRightsAuctionEfficiency-1B.pdf>
 - ISO re-executed the CRR1B structured scenarios for TDs 12/4 & 12/5, to publish initial Settlements by 12/10, 12/11, and 12/12 to provide MPs with more data to review
 - TD 12/5 recalc & TD 12/4-12/5 recalc published 12/18 to address two known issues: CIDI 209118 & 209189

CRR Auction Efficiency – 1B (continued)

CRR 1B Enhancement – to be implemented in 2019

CAISO will provide the following CRR-specific information in a new CMRI report, per binding constraint and time interval

- CRR ID
- Hedge Type (option or obligation)
- CRR Type (LSE, AUC, etc.)
- Hourly Notional Revenue
- Hourly CRR Clawback Revenue
- Hourly Circular Scheduling Revenue
- De-rate factor (applies to merchant TOR CRRs)
- CRR award MW

This information will be provided for each CRR at a unique source and sink location. If an SC has multiple CRRs at the same source and sink, result will be based on the net award value

CRR Auction Efficiency – 1B (continued)

- Modified BRS published 11/29
 - Updates to clarify CRR ID numbering and use of SCID in lieu of BAID
 - clarify and update requirements to the current setup we have for market simulation in MAP Stage
 - should not result in any integration changes for market participants
 - BRQ042A
 - shows impact to the CRRS system (internal ISO system not exposed to MPs)
 - included because data will go downstream and show in Settlements
 - Settlements associated Config Guide does not require any changes as it already uses SCID rather than BAID
 - BRQ401
 - shows a change to the CMRI system
 - associated Tech Spec, from 9/11/18, already reflects SCID instead of BAID (sections 50.2 and 50.3 already references SCID instead of BAID)
 - see http://www.caiso.com/Documents/CMRI-InterfaceSpecification_v3_8_1Clean_Fall2018Release.pdf
 - <http://www.caiso.com/Documents/BusinessRequirementSpecification-CongestionRevenueRightsAuctionEfficiency1B.pdf>

CRR Auction Efficiency – 1B (continued)

- **CRR Data for Scenarios**
 - MPs able to obtain from MAP Stage CRR MUI
 - Report: Private / Existing CRR
 - Report is forward-looking; December data only available thru end of December
- **Mapping to a Transmission Constraint ID where a DLAP / SLAP is the Source Financial Node**
 - Authorized participants have access to ISO shift factor and load distribution factor files on the MPP.
 - In addition, all participants have access to ISO load distribution factor files on OASIS.
 - The shift factor file relates a constraint to a Pnode.
 - The OASIS load distribution factor file relates a LAP (CLAP, SLAP, DLAP, etc) to a Pnode.
 - The portal load distribution factor file relates a DLAP to a Pnode.
 - The portal load distribution factor file contains the dynamic values used by the day-ahead market, and is thus more accurate than the OASIS file, which uses static values.
- **Mapping reports available to map the CRR Financial Node to a Constraint ID**
 - The CRR Inventory report on OASIS lists all CRRs. The report contains the Pnode or APnode of the source and sink. These nodes can be mapped to the constraint using the files referenced in answer above.

EIM 2019 BANC / SMUD

- **Timeline:** December 3 – January 31
 - Structured Scenarios:
<http://www.caiso.com/Documents/MarketSimulationStructuredScenarios-BANC-SMUD.pdf>

EIM 2019 BANC / SMUD (continued)

- Structured Scenario Test Status**

BANC - SMUD Market Simulation - Structured Scenario Testing Status

	Scenario	Description	Planned Execution	Actual Execution	Status	Date Passed (includes Settlement)	Comments
Week 1	1	DAM Feasibility Test Results	12/4/2018	12/4/2018	Passed	12/4/2018	Execution Passed
	2	BAA fails Flex ramp sufficiency test upward direction	12/4/2018	12/4/2018	Passed	12/18/2018	Execution Passed
	3	BAA fails Flex ramp sufficiency test downward direction	12/4/2018	12/4/2018	Passed	12/18/2018	Execution Passed
	11	EIM Entity BAA Isolation	12/5/2018	12/5/2018	Passed	12/18/2018	Execution Passed
	12	Impact of Real Time Unit Commitment on EIM Entity	12/5/2018	12/5/2018	Passed	12/18/2018	Execution Passed
Week 2	5	EIM Real Time – Manual Dispatches for EIM Resources	12/11/2018	12/11/2018	Passed	12/26/2018	Execution Passed
	9	EIM Real Time – Contingency Event in the EIM BAA	12/11/2018	12/11/2018	Passed	12/26/2018	Execution Passed
	8	EIM Real Time – Neutrality	12/12/2018	12/12/2018	Passed	12/26/2018	Execution Passed
	10	EIM Real Time – Contingency Event in the ISO BA	12/12/2018	12/12/2018	Passed	12/26/2018	Execution Passed
Week 3	6	EIM Real Time – EIM Specific Resource Mitigation RTPD and RTD	12/18/2018	12/18/2018			RT Execution Passed
	4	EIM Real Time – Congestion Management within EIM Entity BAAs	12/18/2018	12/18/2018			RT Execution Passed
	13	Available Capacity (Reserves)	12/19/2018	12/19/2018			RT Execution Passed

MAP Stage Known Issues

System	Summary	Status	Estimated Fix Date	CIDI #
CCE3	CCE3 Oct. 3 RAAIM Exemption - On Oct. 3 MONTHLY INITIAL MARKET settlement statement, units were assessed RAAIM charges although a Other_Use_Limit_Reached and Annual_Use_Limit_Reached outage card were submitted.	Pending Customer Review for TD 12/4, settlements published 12/12	N/A	207875
CCE3	CCE3 Start-up Opportunity Cost missing? In reviewing the translation of opportunity cost values between CAISO systems as have found a case where we do not believe a resource start up opportunity cost is being included correctly for cost recovery.	In Progress	Jan 2019	208054
CRR1B	Additional CRR revenue data to be provided related to binding HVDC constraints.	Pending Customer Review	12/18 (in TD 12/5 daily recalc, TD 12/4-5 mini-monthly recalc)	209189

Reference Slides

Market Simulation Support

- **Hours:** Monday thru Friday 0900-1800 PT
- **Market Simulation Coordinator Phone:** (916) 351-2205
- **ISO's 24x7 Service Desk:** (916) 351-2309 (Connectivity – UI or API)
- **Email:** MarketSim@caiso.com

Market Simulation Issue Management

- Submit all issues to the CIDI case management system
- CIDI cases must have “**Functional Environment**” = “**Market Simulation**” to be reviewed by ISO SMEs

MAP Stage Environment Data

- MAP Stage Bids: Static Data Timelines:
 - DAM bids submitted for T+4 (example: on 9/10 bids are submitted for 9/14)
 - MPs wishing to check and or submit bids for T+1 – T+4) can do so after 7am PT on T. (example T=9/10 - DA bids can be submitted for 9/11, 9/12, 9/13 and if after 7am PT for 9/14)
 - In the example no seeded bids will over-write submitted bids for T+1, T+2, T+3. For T+4 if the submitted bids come in after 7am they will not be over-written by seeded bids
 - RTM bids are submitted for T+1 at 11am PT (example: on 9/10 static bids are submitted at 11am PT for 9/11)
 - Participants wishing to check and or submit bid for T+1 can do so after 12pm PT
 - no seeded data will over-write submitted bids.
- SIBR RTM functionality for validating submitted bids or generating submitted bid based on DA market results will still apply, typically MAP Stage market results are not published until after 12pm PT.
- All RTM bids are revalidated at 22:10 PT for the next day based on latest commitment cost data received
- Bids must be submitted or verified by participants wanting to validate functionality in SIBR or downstream applications with regard to project expectations

Independent 2018 & Spring 2019 Releases Communication Plan

- **Schedule**

Monday	Thursday
All occurrences 1400-1500 PT	
November 5, 12, 19, 26 December 3, 10, 17	November 1 (<i>first</i>), 8, 15, 29 December 6, 13, 20, 27 (<i>last</i>)

- **Connection Information**

- **Web Conference Information**

- Web Address: <https://caiso.webex.com/meet/MarketSim>
 - Meeting Number: 962 067 710
 - Audio connection instructions will be available after connecting to the web conference. When prompted, select "Call me" and enter the phone number you will use during the call. You will be called by the conference shortly.

- **Conference Call Information**

- Dial-in Number: 866-528-2256
 - International Dial-in: 216-706-7052
 - Access Code: 202 249 0

Stay Informed

Ways to participate in releases

- Visit the Release Planning page
 - <http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx>
- Attend meetings
 - Release Users Group (RUG) bi-weekly meetings
 - Initiative status updates
 - System change updates on independent releases
 - Market Simulation calls
 - Visit the ISO calendar at www.caiso.com for meeting dates and times and add events to your calendar
 - Typically held on Mondays and Thursdays
 - Market sim calls for major releases will be market noticed
 - Market Performance and Planning Forum
 - Bi-monthly review of market performance issues
 - High level discussion of release planning, implementation and new market enhancements

What to look for on the calendar...

Calendar of Meetings, Training and Events

Month: February Year: 2018 Calendar View List View Print View

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	5 WebbCONF: Market Simulation 2:00pm - 3:00pm	6 Training: Get to Know the ISO - Day 1 9:00am - 4:00pm WebbCONF: Imbalance Conformance Enhancements 10:00am - 12:00pm WebbCONF: Technical User Group 10:00am - 11:00am	7 Deadline: Comments - Interconnection Process Enhancements 2018 - Issue Paper and Meeting Discussion Training: Get to Know the ISO - Day 2 9:00am - 4:00pm Meeting: Flexible Resource Adequacy Criteria Must Offer Obligation Phase 2 - Revised Draft Flexible Capacity Framework 10:00am - 4:00pm WebbCONF: Market Settlement User Group 10:00am - 11:00am	8 Meeting: Audit Committee Teleconference (Executive) 3:30pm - 6:30pm Training: Settlements 101 9:00am - 4:00pm Meeting: 2017-2018 Transmission Planning Process 10:00am - 4:00pm WebbCONF: Market Simulation 2:00pm - 3:00pm	9 Training: Settlements 201 9:00am - 4:00pm	10
11 WebbCONF: Participating Transmission Owner Per Unit Cost Guides 10:30am - 12:00pm WebbCONF: Market Simulation 2:00pm - 3:00pm	12 Meeting: Congestion Revenue Rights Auction Efficiency 10:00am - 4:00pm WebbCONF: Release User Group 10:00am - 11:00am Call: Energy Imbalance Market Governing Body Teleconference (Executive) 11:30am - 12:30pm	13 Deadline: Submissions - April 2018 Monthly Resource Adequacy and Supply Plans Call: Congestion Revenue Rights 11:00am - 11:30am WebbCONF: Outage Management System Customer Partnership Group 2:00pm - 3:00pm	14 Deadline: Comments - Review Transmission Access Charge Structure Straw Proposal and Meeting Discussion Call: Board of Governors Teleconference (General) 3:15pm - 6:00pm Call: Board of Governors Teleconference (Executive) 9:00am - 10:00am Call: Market Update 10:15am - 11:00am WebbCONF: Market Simulation	15	16	17

Market Sim



Market Sim



Release Users Group (RUG)

