Market Simulation – Fall 2018 Release

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Sr. Change & Release Planner

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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

- Fall 2018 Release MAP Stage Availability
- Fall 2018 Release Market Simulation Initiatives & Timelines
- Initiatives
  - Commitment Cost Enhancements Phase 3
  - Energy Storage & Distributed Energy Resources Phase 2
  - Settlements Performance Improvements
  - Generator Contingency & Remedial Action Scheme Modeling
  - Congestion Revenue Rights Auction Efficiency – 1A
  - Energy Imbalance Market Enhancements 2018
  - Regional Integration & EIM Green House Gas Compliance
- Known Issues
- Next Steps

Fall 2018 Release 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

Fall 2018 Release Market Simulation Initiatives & Timelines

Fall 2018 Release Initiatives	Start Date	Start Date (Trade Date)	End Date	Structured Simulation Start (Trade Date)	Expected Participation
Fall 2018 Release Market Simulation	8/20	8/20	10/12	9/5	
Commitment Cost Enhancements Phase 3	8/20	8/20	10/12	9/25	ISO Market Participants EIM Market Participants
ESDER Phase 2	8/20	8/20	10/12	9/5	ISO Market Participants EIM Market Participants
Settlements Performance Improvements	8/20	8/20	10/12	9/5	ISO Market Participants EIM Market Participants
Generator Contingency and RAS Modeling	9/20	9/20	10/12	9/26	ISO Market Participants EIM Market Participants
CRR Auction Efficiency – 1A	9/20	9/20	10/12	9/26	ISO Market Participants
EIM Enhancements 2018	9/24	9/24	10/12	9/26	EIM Market Participants
Green House Gas Enhancements for EIM	9/17	9/17	10/12	9/18	EIM Market Participants

*Post-Structured Scenario Settlement Validation Period 10/13-10/31

Market Simulation Plan:
http://www.caiso.com/Documents/MarketSimulationPlan-Fall2018Release.pdf

Commitment Cost Enhancements Phase 3

- **Timeline:** August 20 – October 12
- **Structured:** September 25 – October 12
- **Market Simulation Overview Timeline & MP Preparation**
  - ✓ Thursday, 9/6: Deadline for MPs to submit ULPDT in MAP-Stage.
  - ✓ 9/6-9/7: ISO to process the submitted ULPDTs. In MAP Stage, ISO will approve all ULPDTs for market simulation purposes only
  - ✓ 9/10: webinar to discuss CCE3 features and answer questions about the CCE3 changes
  - ✓ 9/12: CMRI reports available in MAP Stage for connectivity testing
  - ✓ 9/17-9/21: ISO to run opportunity cost calculation for October 2018
  - ✓ 9/25: ISO publishes in CMRI the
    - Actual usage of use limit type for records submitted into MAP Stage
    - Opportunity cost adders viewable in CMRI
  - ✓ 9/30: Opportunity costs available in SIBR for trade date 10/1

Commitment Cost Enhancements Phase 3 (continued)

CMRI UI/API available 9/12 for connectivity with following sample data

Report	Data
Actual Limitation Values	August 2018
Resource Opportunity Costs	Monthly: - October 2018 - November 2018 - December 2018 Daily: - RTM: TD 9/6/18 - DAM: TD 9/7/18 - Will also have daily data starting TD 10/1

Commitment Cost Enhancements Phase 3 (continued)

CMRI queries for data must be entered in a specific way (descriptions below) for data to be returned.

Actual Limitation Values

- API query and DocAttach API query must be for Start Date: MM/01/YYYY End Date: MM+1/1/YYYY. Mid-month queries will not return data.

    o   Example

        ▪ Input Start date as 6/1/2018 and End date as 7/1/2018 **Data is returned.**

        ▪ Input Start date as 6/1/2018 and End date as 6/02/2018 **Data is not returned.**

        ▪ Input Start date as 6/1/2018 and End date as 6/30/2018 **Data is not returned.**

- UI query must be MM/01/YYYY. Mid-month queries will not return data.

    o   Example

        ▪ Input Start date as 6/1/2018. **Data is returned.**

        ▪ Input Start date as 6/8/2018. **Data is not returned.**

Resource Opportunity Costs

- API query and DocAttach API query must be for Start Date: MM/01/YYYY End Date: MM+1/1/YYYY. Mid-month queries will not return data.

    o   Example

        ▪ Input Start date as 6/1/2018 and End date as 7/1/2018 **Data is returned.**

        ▪ Input Start date as 6/1/2018 and End date as 6/02/2018 **Data is not returned.**

        ▪ Input Start date as 6/1/2018 and End date as 6/30/2018 **Data is not returned.**

- UI query for monthly data must be MM/01/YYYY. Mid-month queries will not return data.

    o   Example

        ▪ Input Start date as 6/1/2018. **Data is returned.**

        ▪ Input Start date as 6/8/2018. **Data is not returned.**

- Note: UI query for daily data works as expected

Energy Storage & Distributed Energy Resources Phase 2

- **Timeline:** August 20 – October 12

- **Structured:** September 5 – October 12

- **MP Market Simulation Preparation Timeline**
  - ✓ 8/17: Deadline for MPs to request which of the 7 baselines they would like to see in market simulation for ISO to configure
  - ✓ 8/20-8/24: ISO to process the submitted requests for baselines
  - ✓ 8/27: MPs able to see processed baselines in their picklists
  - ✓ 8/27: MPs able to start registering resources using these baselines*
  - ✓ 8/28: first day any resource registrations will be effective**

  *In MAP Stage, no UCD/LSE approval necessary for resource registrations to become effective
  **In MAP Stage, resource registrations take effect one business day after submission

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Energy Storage & Distributed Energy Resources Phase 2 (continued)

- **Meter Data Submissions**
  - **Please refer to [Fall 2018 Release Market Simulation Plan](#) for Settlements Calendar that includes Meter Data submission deadlines**
    - *For example*, **Submit Meter Data by T+4B** *Calendar Day 9/18 18:00* **PT for Recalc of Settlements** *Trade Day 9/12*
    - Submit GEN, LOAD, MBMA data for Settlements
      - No Known Issues for these types
    - CBL and TMNT data is only for monitoring purposes, and not Settlements
      - These are impacted by Known Issue #3

  - CSV format discussion at 10/2 Technical User Group (TUG) conference at 10AM PT
    - [Add to my calendar](#)

Settlements Performance Improvements

- **Timeline:** August 20 – October 12
- **Structured:** September 5 – October 12

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Generator Contingency & Remedial Action Scheme Modeling

- **Timeline:** September 20 – October 12
- **Structured:** September 26 – October 12

Generator Contingency & Remedial Action Scheme Modeling (continued)

- Due to the NDA restriction of the shift factor data in Market Sim, in order for CAISO to facilitate the Market Sim verification the following will occur
  - GCARM scenarios will run as documented in the Market Scenario documentation.
  - Settlement of the scenario will be calculated as documented in the Market Scenario documentation.
  - Post Market Sim scenario execution, CAISO will provide a version of the shift factor file without market sensitive information for participants to review GFF impact from GCARM contingencies
    - http://www.caiso.com/Documents/ShiftFactor_DayAhead_9_26_2018.csv

Structured Scenarios
  - For both Day Ahead and RT scenarios, the ISO will provide a spreadsheet with information on contingencies that will be used for market simulation. The spreadsheet will provide similar data to what is currently available in the CMRI report. There will be the name of the contingency (generic e.g. GCARM_TEST_1) and equipment that can be possibly overloaded by the contingency.
    - http://www.caiso.com/Documents/GCARMContingencySpreadsheet.xlsx
  - On the RT scenario, the ISO will take the Day Ahead awards information from the structured scenario in DA into Real Time, just like the production process, and market participants may submit bids for any resources, or for those resources that were not awarded for the DA into the Real Time

Congestion Revenue Rights Auction Efficiency – 1A

- **Timeline:** September 20 – October 12
- **Structured:** September 26 – October 12

Congestion Revenue Rights Auction Efficiency – 1A (continued)

- **Latest XSD available 9/28:**
  - http://www.caiso.com/Documents/AuctionPortfolio.xsd
  - There are now two screens for uploading
    - One for "BUY", one for "SELL"
    - The bid curve structure has changed, as described in the BPM

- **MP Actions for Structured Scenarios Participation**
  - **10/9 1700 PT**: Deadline to submit portfolio bids to valid source sink locations
  - **10/9 1700 PT**: Deadline to submit sell offers using appropriate bid curve formulation
  - **10/10**: CRR auction results will be published for MPs to download and validate

Congestion Revenue Rights Auction Efficiency – 1A (continued)

OASIS UI/API available 9/24 for connectivity with following data for PUB CRR BID

MARKET TERM	START_DATE	END_DATE
Seasonal	01-JAN-18	01-APR-18
Seasonal	01-APR-18	30-JUN-18
Monthly	01-JUN-18	30-JUN-18

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Energy Imbalance Market Enhancements 2018

- **Timeline:** September 24 – October 12
- **Structured:** September 26 – October 12

Regional Integration & EIM Green House Gas Compliance

- **Timeline:** September 17 – October 12
- **Structured:** September 18 – October 12

Fall 2018 Release MAP Stage Known Issues

#	System	Summary	Status	Estimated Fix Date	CIDI #
3	MRI-S	MRI-S doesn't allow user to include Registration ID when submitting measurement type for CBL (Baseline Load Data) and TMNT (Treatment Group Load Data) *Registration ID not required for measurement types GEN, LOAD, or MBMA (DREM value submitted under measurement type GEN or Load data submitted under LOAD or MBMA)	Open	TBD	207068
5	CMRI	Actual Limitation Values doesn't include MSG configurations	Fixed, to be promoted to MAP-Stage	TBD	206609
6	CMRI	CMRI XML Tag Typo The ResourceOpportunityCost_v1.xsd file contains the following XML tag: ResourceOpportunityCosttRecord. Note that there is a double 't' in the spelling of 'cost'. This tag does appear in the ResourceOpportunityCost XML file that CAISO produces in response to a request.	Open	TBD	207309
7	OASIS	BAA Market Events API error: Report name does not exist	Resolved	9/28/18	207468 207509

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Next Steps

- The next teleconference is scheduled on Thursday, October 4 at 1400 PT

Reference Slides

California ISO

ISO 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 tickets must have "**Functional Environment**" = "**Market Simulation Fall 2018**" to be reviewed by ISO SMEs

Fall 2018 Release Communication Plan

- ## Schedule

Monday	Tuesday	Thursday
All occurrences 1400-1500 PT		
August 20, 27 September 10, 17, 24 October 1, 8	September 4	August *16 (first)*, 23, 30 September 6, 13, 20, 27 October 4, *11 (last)*

- ## 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

Fall 2018 Release 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
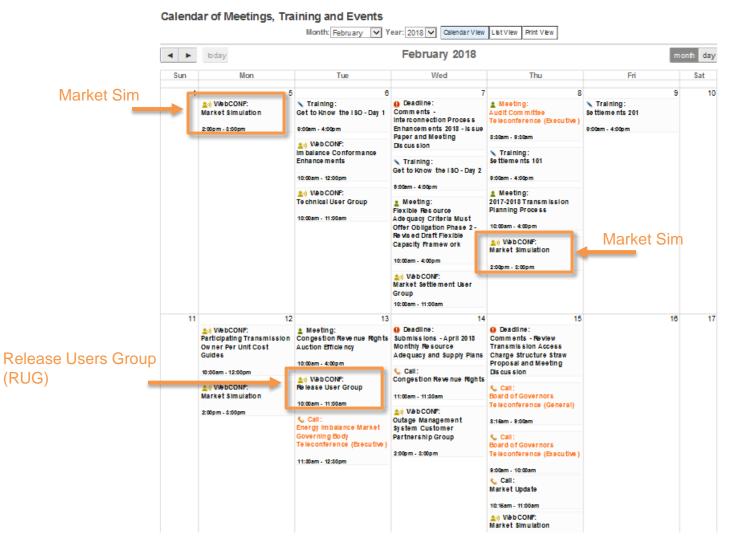
Stay Informed

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…

THANK YOU

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