Market Simulation Forum

July 31, 2025

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Market Simulation Coordinator

Overview

- Presentation Summary of Changes
- Market Simulation Overview
- Market Simulation MAP Stage Availability
- Market Simulation MAP Stage Code
- Market Simulation Activities
- Market Simulation Settlements (if needed)
- Market Simulation Initiatives - Current
  - FERC881 Track 2
  - Transmission Exchange Agreement (TEA)
- Market Simulation Initiatives - Upcoming
  - Subscriber Participation Transmission Ownership Model (Subscriber PTO)
  - EDAM/DAME/Western EIM/BAA/ISO

Summary Of Changes

- Slide 8: Updated upcoming maintenance windows
- Slide 14: Updated TR MSIM dates for FERC881
- Slide 19: Added Slide for DRRS MRI-S Baseline MSIM dates
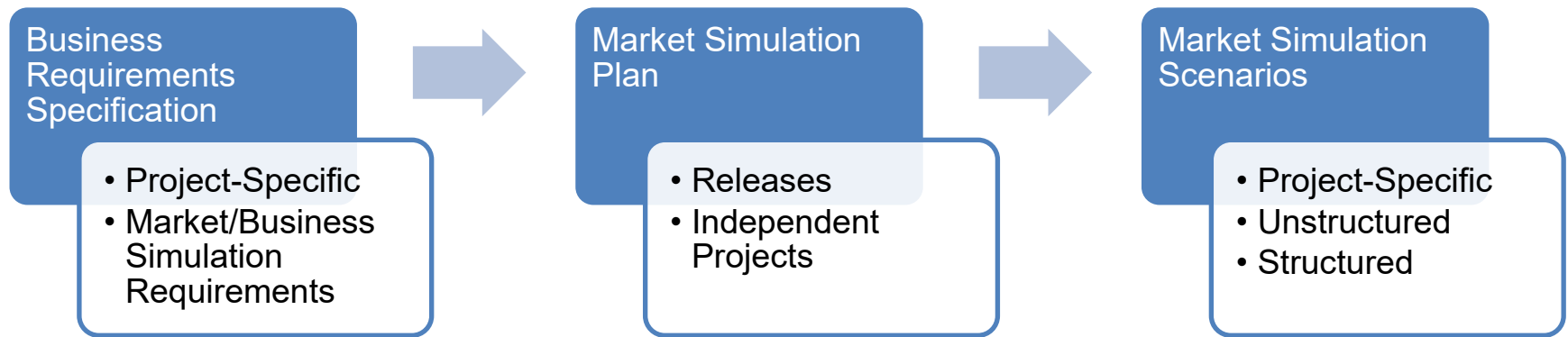- Slide 20: Added placeholder slide for Unwarranted BCR initiatve

Market Simulation Overview

- Covers activities in the MAP Stage environment

- MAP Stage is an integrated Production-like environment that is available to customers with provisioned access

- Allows customers to experience ISO release/project implementations prior to Production implementation

- Market Simulation will allow customers and the CAISO to conduct specific market scenarios in a test environment prior to the Production activation to ensure that all system interfaces are functioning as expected and to produce simulated market results

- Customers may also use MAP Stage to validate the interaction of customer-driven changes with the ISO systems

Reasons for Market Simulation

- **Rule impacts**: Generalized changes in market rules, bidding rules, settlements rules, market design changes, or other business rules.

- **Interface changes**: Changes that impact templates (RA Supply Plan, Master File RDT, etc.), User Interfaces (UI), Application Programming Interface (API) / Web Service.

- **New/modified application/report**: Changes that cause addition/modification of ISO systems or reports, especially when data input is required by the customer

- **New/modified system process**: Modification of data flow in systems, especially if the new/modified process requires the customer to demonstrate proficiency prior to Production

- **New/modified model data**: Addition or substantial modification of model data as a market solution or export provided by the ISO

- **New/modified user role**: The addition or modification of access permissions for a user role

Market Simulation for ISO Implementation of Releases & Projects - Deliverables

Business Requirements Specification

- Project-Specific
- Market/Business Simulation Requirements

Market Simulation Plan

- Releases
- Independent Projects

Market Simulation Scenarios

- Project-Specific
- Unstructured
- Structured

Market Simulation Forums
Scheduled for 2-3PM PT

	Monday	Tuesday	Wednesday	Thursday	Friday
August					1
	4	5	6	7	8
	11	12	13	14	15
	18	19	20	21	22
	25	26	27	28	29
September	1	2	3	4	5
	8	9	10	11	12
	15	16	17	18	19
	22	23	24	25	26
	29	30			

Market Simulation Forum	ISO Closure	Cancelled

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Market Simulation MAP Stage Availability

- *MAP Stage weekly maintenance window is Friday**

System	UI	API	Comments
ADS			
ALFS	Not Available		
BAAOP			
BSAP			
CIRA			
CMRI			
CRR (old)		Not Available	
CRR (new)			
DRRS			
ECIC	Not Available		
FDR	Not Available		
MF			
OASIS			Maintenance 7/30 – 8/6
OMS			Maintenance 7/29 – 8/8
PLC		Not Available	
RCBSAP			
RIMS		Not Available	
SIBR			
MRIS			
TR		Not Available	
webWheel		Not Available	
webLineR	12/31/24	From 4/14	

AVAILABLE
MAINTENANCE

*Maintenance may also occur after 1600 PT on other days and may deviate from the weekly maintenance window as necessary

Market Simulation MAP Stage Code

System	MAP-STAGE	PRODUCTION	Comments
Market	Release 23	Release 23	
FNM	DB134	DB134 from 4/14	
ADS			
ALFS			
BAAOP			
BSAP			
CIRA			
CMRI		From 4/9	
DRRS			
ECIC			
FDR			
MF			
OASIS		From 4/1	
RCBSAP			
SIBR			
TR			

AHEAD OF PRODUCTION
SYNCED WITH PRODUCTION
BEHIND PRODUCTION

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Market Simulation Activities

Initiative	Market Simulation	Comments	Activation
FERC881 Track 2	**Connectivity Testing:** • UI: 12/31/24 – 04/14/25 • API: 04/14/25 – 06/30/25 **Market Simulation:** • Unstructured: 04/14/25 – 06/30/25	N/A	Track 2: 07/7/25
Transmission Exchange Agreement (TEA)	**Unstructured MSIM (WAPA)**: 3/17/25 – 4/4/25 (new Aggregate Tie) **Unstructured MSIM (WAPA, TEA BRS):** Jan. 2026	N/A	**Aggregate Tie:** 05/01/25 **Full Activation:** March 2026
DAME / EDAM / Western EIM	See project slide.	BPM posting 7/1/25	See project slide 19.
Subscriber PTO	See project slide.	Training: Jun - Sept	10/01/25

Map-Stage Environment Issues

Initiative	Defects
FERC881 Track 2	N/A
Hybrid Resources Phase 2C (HR2C) - RIMS	N/A
Transmission Exchange Agreement (TEA)	N/A
DAME / EDAM / WEIM	N/A
Other projects and issues	N/A

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FERC Order 881 Track 2 – Market Simulation Timeline

Connectivity Testing (webLineR Only):
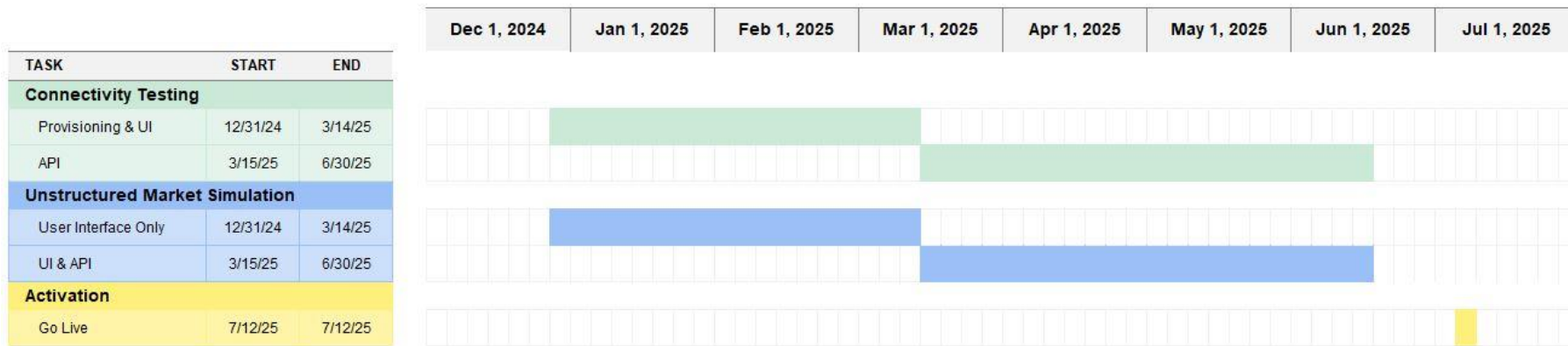- Provisioning & UI: 12/31/24 – 04/14/25
- API: 04/14/25 – 06/30/25

Market Simulation (webLineR Only):
- Unstructured (UI Only): 12/31/24 - 04/14/25
- Unstructured (UI & API): 04/14/25 – 06/30/25
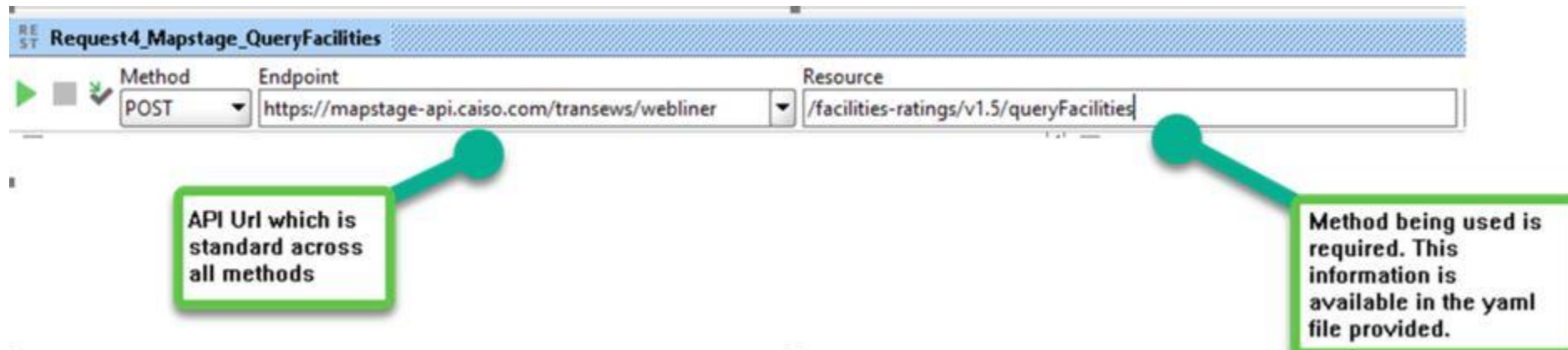
Activation (webLineR Only):
- Go-live: 07/7/25
- webLineR MAPSTAGE shall remain accessible to participants after activation.

Note: refer to webLineR MAPSTAGE to test connectivity. If did not attend the training and would like a copy, please email CustomerTraining@caiso.com for training material. Note: Extension being provided for Track 3 does not impact Track 1 and Track 2 FNM and/or ICCP functionality.

TASK	START	END
Connectivity Testing		
Provisioning & UI	12/31/24	3/14/25
API	3/15/25	6/30/25
Unstructured Market Simulation		
User Interface Only	12/31/24	3/14/25
UI & API	3/15/25	6/30/25
Activation		
Go Live	7/12/25	7/12/25

Dec 1, 2024	Jan 1, 2025	Feb 1, 2025	Mar 1, 2025	Apr 1, 2025	May 1, 2025	Jun 1, 2025	Jul 1, 2025

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FERC881 Track 2 – webLineR Question

The API URL is https://mapstage-api.caiso.com/transews/webliner/ and is reflected on the ISO Developer site. As this is not a webpage participants will need to use a tool like SOAPUI or Postman to submit API requests and provide the method utilized. For example:

Note: webLineR UI, https://mapstage-webliner.caiso.com is a webpage and can be accessed via a valid certificate.

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FERC Order 881 Track 2 – Market Simulation Timeline

Market Simulation (Transmission Registry):

- Unstructured: 07/14/24 - 08/01/25

Note: Should questions or issues arise with Transmission Registry Market Simulation testing, please email gridassets@caiso.com directly and CC MarketSim@caiso.com

Transmission Exchange Agreement (TEA)

- **Register by December 31, 2024**

- MF, SIBR, ETCC, ITS, Settlements, CMRI, OASIS

- Unstructured MSIM (WAPA Only): 03/17/25 - 04/4/25

- Full Scope Unstructured MSIM (WAPA Only, TEA BRS): Jan. 2026

- First Activation: Week of 05/1/25 (new Aggregate Tie)

- Full Activation: March 2026

Note: Refer to TEA External BRS for overview of functionality for October Activation.
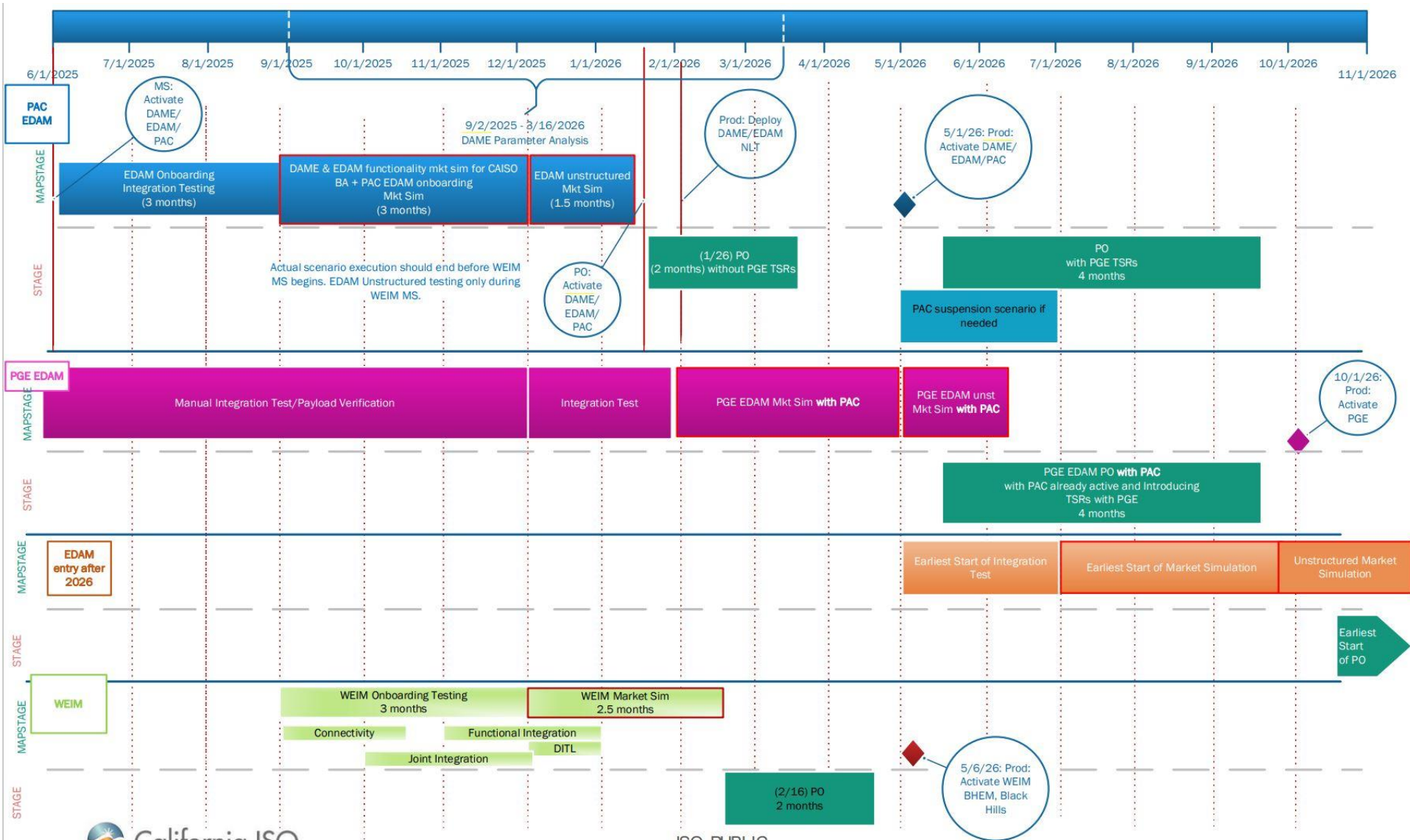
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DAME / EDAM / WEIM – Timeline

Initiative	Connectivity Testing	Integration Testing*	Structured Market Sim	Unstructured Market Sim	Parallel Operations	Activation
Day-Ahead Market Enhancements	06/02/25 – 09/01/25	06/02/25 – 09/01/25	09/02/25 – 12/01/25	12/01/25 – 01/15/26	02/02/26 – 03/26/26 (EDAM OB)	05/01/26
Extended Day-Ahead Market	06/02/25 – 09/01/25	06/02/25 – 09/01/25	09/02/25 – 12/01/25	12/01/25 – 01/15/26	02/02/26 – 03/26/26 (EDAM OB)	05/01/26
EDAM ISO BAA Participation Rules Track A	06/02/25 – 09/01/25	06/02/25 – 09/01/25	09/02/25 – 12/01/25	12/01/25 – 01/15/26	02/02/26 – 03/26/26 (EDAM OB)	05/01/26
Extended Day-Ahead Market On-Boarding - Pacificorp	05/01/25 – 05/31/25	06/02/25 – 09/01/25	09/02/25 – 12/01/25	12/01/25 – 01/15/26	02/02/26 – 03/26/26	05/01/26
Extended Day-Ahead Market - PGE	11/01/25 – 11/30/25	12/01/25 – 03/01/26	03/01/26 – 04/30/26	05/01/26 – 06/12/26	06/01/26 – 09/15/26	10/01/26
WEIM - Berkshire Hathaway Energy Montana	09/01/25 – 10/17/25	10/01/26 – 11/30/26	12/01/25 – 02/13/26	NA	02/16/26 – 04/17/26	05/06/26
WEIM – Black Hills	09/01/25 – 10/17/25	10/01/26 – 11/30/26	12/01/25 – 02/13/26	NA	02/16/26 – 04/17/26	05/06/26

*Note: Formal Integration Period provided to Onboarding entities. For purposes of Market Simulation entities to perform Integration Testing to ensure provisioned application access.

DAME / EDAM / WEIM – Market Simulation Timeline

Subscriber Participating Transmission Ownership Model (Subscriber PTO)

Connectivity/Integration Testing:
- 08/11/25 – 08/15/25 (Phase 1)
- TBD - Phase 2

Unstructured Market Simulation:
- 08/18/25 - 08/29/25 (Phase 1)
- 01/05/26 – 01/16/26 (Phase 2)

Activation:
- 10/01/25 (Phase 1)
- 02/01/26 (Phase 2)

Note: Refer to Subscriber PTO BRS for overview of functionality. Phase 1 to include all functionality except for Settlements and CMRI, Phase 2 includes Settlements and CMRI only.

Demand Response Registration System (DRRS) MRI-S Baseline

Unstructured Market Simulation:
- 08/13/25 - 08/22/25 (tentative)

Activation:
- 9/15/25 (tentative)

Note: Market Simulation is reserved exclusively for Demand Response Providers (DRPs) in DRRS MAPSTAGE.

ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
CCFIM-MSIM-04020	ISO DRPs Update Registration Start Date and End Date • Set up a scenario where DRPs within CAISO update registration Start Date and End Date that may or may not violate some of the DRRS business rules. • Follow the results in sink system to verify the update or the issuing of error messages to resolve any violation of the new rules.	DRRS	DRRS	1. Rule Impacts 4. New system process

Unwarranted Storage Bid Cost Recovery

Unstructured Market Simulation:
- TBD

Activation:
- TBD

ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario

USBCR-MSIM-05020	ISO, EDAM and WEIM-Only SCs Submit DA and RT Energy Bids for LESRs
	
	• Set up a scenario where SCs for resources within CAISO, EDAM and WEIM-Only BAAs submit DA nd RT energy bids for LESRs that can trigger the new revision rules for RT BCR Settlements.
	
	• Run DAM (IFM and RUC).
	
	• Run RTM (FMM and RTD).
	
	• Run MQS (T+1C)
	
	• Run Settlements (T+5B)
	
	• Follow the results in sink systems to verify revised final bid prices are used in Settlements and published in CMRI.
	
	 o CMRI
	
	  ▪ Expected Energy Allocation Details
	
	 o Settlements
	
	  ▪ RT BCR
		• SIBR	• SIBR
			
			• MRI-S
			
			• CMRI
				1. Rule Impacts
				
				4. New system process

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Next Steps

- Work with your UAA to provision your organization's access to MAP Stage for access to the systems to execute Market Simulation

- Review BRS Market Simulation requirements, Market Simulation Plans, Market Simulation Scenarios and provide any feedback

- Register for participation in Market Simulation

- Attend the Release User Group Forums, every other week, for implementation updates, including active and upcoming Market Simulation activities

- During active Market Simulations, attend the weekly Market Simulation Forums

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Market Simulation Registration

- **Please register for your participation in Market Simulation activities for each Market Simulation initiative as appropriate**
    - If you have intent to actively engage in MAP Stage testing of access, systems, functionality, processes, and/or review of results/data
- **This informs CAISO Market Simulation to provide more specific support for your efforts**, including
    - Data setup for your testing
    - More immediate communication and coordination impacting your testing/review
    - More detailed information for the applicable initiatives
- **How to register**
    - Submit CIDI with 'Functional Environment' = "Market Simulation"
        - Identify the Market Simulation initiative(s) you will participate in
        - Identify any specific resources as applicable
        - List the contacts and e-mail addresses that you would like to include
    - CIDI is preferred and if you don't have CIDI, you can e-mail marketsim@caiso.com with the same information

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Upcoming Meetings

- [Market Simulation Forum:](#)
  - Tuesday, Aug 21, 2025 @ 2:00 PM PT
- [Release User Group (RUG):](#)
  - Tuesday, Sep 2, 2025 @ 10:00 AM PT
- [Technical User Group (TUG):](#)
  - Tuesday, Aug 12, 2025 @ 10:00AM PT
- DAME, EDAM, EDAM CAISO BAA PR:
  - Thursdays 1PM PT (registered participants only)

Market Simulation Support

- Email general questions to marketsim@caiso.com

- Submit market simulation specific issues and questions in CIDI with subject: "Project Name: System Name – Issue Title" with Functional Environment set to Market Simulation.
  - If not related to a Project submit subject as "NA: System Name – Issue Title"

- Service Desk: (916) 351-2309