



California ISO

# Release User Group Agenda

January 24, 2023

10:00 a.m.–11:00 a.m. (Pacific Time)

<b>Web Conference Information</b>	<b>Conference Call Information</b>
<p>Web Address: <a href="https://caiso.webex.com/caiso/j.php?MTID=m8f4dee2c7059898b3609c46be3cd2c20">https://caiso.webex.com/caiso/j.php?MTID=m8f4dee2c7059898b3609c46be3cd2c20</a></p> <p>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.</p>	<p><i>1-844-621-3956 United States Toll Free</i> <i>+1-650-479-3208 United States Toll</i> <i>Meeting number (access code): 2491 042 7352</i></p>
<p>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.</p>	
<p><a href="https://www.caiso.com/informed/Pages/MeetingsEvents/UserGroupsRecurringMeetings/Default.aspx#RUG">https://www.caiso.com/informed/Pages/MeetingsEvents/UserGroupsRecurringMeetings/Default.aspx#RUG</a></p>	
<p><a href="http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx">http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx</a></p>	

# Release User Group Agenda

*January 24, 2023*

*10:00 a.m. – 11:00 a.m. (Pacific Time)*

<b>Time</b>	<b>Topic</b>	<b>Facilitator</b>
10:00 – 10:05	Introduction	Trang Vo
10:05 – 10:45	Release Plan	Trang Vo Ken Kasparian Jami Herguth

# ISO Training Schedule

Training Course	Date and time
Hybrid Resources Phase 2B Refresher Training*	January 24 8:30am – 10am PPT
FRP Refinements – Deliverability Refresher Training*	January 25 1pm – 2:30pm PPT
ISO Workshop: Introduction to ISO Markets	March 7 and 8 9am – 12pm PPT
ISO Workshop: Market Transactions	March 14 and 15 9am – 12pm PPT
ISO Workshop: ISO Settlements	March 21 and 22 9am – 12pm PPT

\*If you have questions that you would like addressed in the upcoming refresher training please submit them at the following link: <https://www.surveymonkey.com/r/CAISOreleasetrainingquestions>

Are you looking for more training?

The ISO Learning Center has computer based training available for lots of topics. Check out the Learning Center: <http://www.caiso.com/participate/Pages/LearningCenter/default.aspx>



# Release Plan Summary

## **Fall 2022 Release**

Flexible Ramping Product Improvements – Deliverability; Activation 2/1/23  
Hybrid Resources Phase 2B; Activation 2/1/23

## **2023 Independent**

Operations Systems Improvements Enhancements  
WEIM Enhancements: Shared Ramping Constraint; March 2023  
WEIM Enhancements: ETSR UI; April 2023  
Washington WEIM Greenhouse Gas Enhancements Phase 1

## **2023 Pre-Summer – Tentative, under further assessment**

Ancillary Service State of Charge Constraint  
Energy Storage Enhancements Phase 1 Track 1 – Ancillary Services & Exceptional Dispatch  
WEIM Resource Sufficiency Evaluation Enhancements Phase 2 Track 1  
Hybrid Resources Phase 2C

## **Future Release – Tentative, under further assessment**

Transmission Service & Market Scheduling Priorities Phase 2  
Day-Ahead Market Enhancements  
Extended Day-Ahead Market

# Release Plan Summary WEIM Spring 2023

## **WEIM Spring 2023 Release**

WEIM 2023 – Avangrid

WEIM 2023 – El Paso Electric

WEIM 2023 – WAPA Desert Southwest Region

# 2022 Fall Release

# Fall 2022 Release Overview

	BRS	Config Guide	Draft Tariff*	BPMs	External Training	Production Activation
<b>Fall 2022 Release</b>						
<a href="#"><u>Hybrid Resources Phase 2B</u></a>	V1.6 10/19/22  V1.7 1/30/23 - add TG hybrid support, more BRQs designated for 2C	3 <sup>rd</sup> draft config output 8/30/22	09/17/21  Accepted 11/30/21	2/14/22  9/29/22 Mkt Ops updates  Stlmt & Billing: A modification to PRR 1454 is now available as revised PRR 1481 on 11/29/22	8/18/22  9/26/22 – Metering  10/6/22 – Add'l Metering  <b>Refresher 01/24/23</b>	<b>02/01/23</b>
<a href="#"><u>FRP Improvements - Deliverability</u></a>	V1.2 8/22/22	Pre-prod config output file + release artifacts 11/17/22  Prod Deploy 11/30/22  Final Settlement Config Output File 11/30/22	08/31/20  Filed 8/15/22  Accepted 10/18/22	10/24/22  PRR 1473 MO updated 12/14/22; 1474 MI updated 12/13/22	9/07/22  <b>Refresher 01/25/23</b>	<b>02/01/23</b>
<a href="#"><u>Central Procurement Entity Implementation</u></a>	V1.2 9/14/22		Filed 4/8/22  Approved 7/1/22	Settlements & Billing  Reliability Requirements 10/28/22	9/14/22	MF/CIRA 10/13/22  Effective Date 1/1/23 for 2023 RA Year

# Fall 2022 – Hybrid Resources Phases 2-B - Overview

Project Information	Details/Date
<p><b>High Level Business Problem or Need</b></p>	<p>The ISO launched this stakeholder initiative to identify new or enhanced market rules and business processes needed to accommodate hybrid resources, resources that consist of two sets of market rule changes that will facilitate mixed-fuel type project participation (hybrid and co-located resources) in the ISO markets.</p>
<p><b>High Level Project Scope</b></p>	<p><b>Phase 2</b> focuses on modifications that will explore how hybrid generation resources can be registered and configured to operate within the ISO market. The initiative will further develop solutions allowing developers to maximize the benefits of their resource's configuration. Additionally, hybrid resource configurations also raise new operational and forecasting challenges that the ISO plans to address during this initiative.</p> <p>The Phase 2 project has been split into two separate implementations, phases 2-A and 2-B, to support strategic delivery timing. Phase 2-B information is available under the Spring 2022 release section.</p> <p><b>Phase 2-A</b> was implemented on December 15, 2021. This phase focuses on implementing Ancillary Services (AS) and High Sustainable Limit (HSL) functionality with a focus on the EMS and IFM/RTM systems.</p> <p><b>Phase 2-B</b> is scheduled to implement Fall 2022. This project phase focuses on implementing the Hybrid Dynamic Limit functionality, Multiple ACC, along with all remaining project scope to include changes to systems RIMS, Master File, EMS, SIBR, IFM/RTM, OASIS, ALFS, Settlements, MRI-S Metering, CMRI, MPP, Today's Outlook, ISO Today Mobile Application, Monthly Renewables Performance Report, Wind and Solar Real-Time Dispatch Curtailment Report', and the Over Supply Page.</p> <p><b>External BRS Posting:</b> V1.5 posted on 8/25.</p>
<p><b>BPM Changes</b></p>	<p>Direct Telemetry, Market Instruments, Market Operations, Metering, Settlements and Billing</p>
<p><b>Tariff Changes</b></p>	<p>Proposed sections 4.18, 34.1.6.3, 30.5.6.1 Sections 27.13, 8.4.1.1(g), 8.4.3, Appendix K, Parts A, B and C, 8.2.3, 8.4.5, 34.7, 11.6.6, 4.8.2, 40.9.2 (b) (D)</p>
<p><b>Impacted Systems</b></p>	<p>ALFS, CMRI, Reporting, IFM/RTM, Master File, OASIS, RIMS, Settlements, MRI-S Metering, SIBR, MPP, Today's Outlook, ISO Today Mobile Application, Monthly Renewables Performance Report, Wind and Solar Real-Time Dispatch Curtailment Report, Over Supply Page.</p>



## Fall 2022 – Hybrid Resources Phase 2-B

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	Nov 18, 2020	✓
External BRS	BRS v 1.6 (few minor RIMS updates)	Oct 18, 2022	✓
	BRS v 1.7 (add TG hybrid support, more BRQs designated for 2C)	Jan 30, 2022	
Config Guides	Post Draft Config Guides	Jan 25, 2022	✓
Tech Spec	Create ISO Interface Spec (Tech spec)	Sep 10, 2021	✓
Tariff	File Tariff	Sep 17, 2021	✓
	Accepted	Nov 30, 2021	✓
Market Sim Scenarios	Post proposed scenarios (Unstructured)	Feb 8, 2022	✓
BPMs	Publish Final Business Practice Manuals for mkt sim	Feb 14, 2022	✓
	Market Operations BPM update	Sep 29, 2022	✓
	Settlements & Billing BPM update	Nov 29, 2022	✓
	Market Operations BPM update	Dec 16, 2022	✓
External Training	Deliver External Training	Aug 18, 2022	✓
	Deliver External Training - Metering Requirements	Sep 26, 2022	✓
	Deliver External Training - Metering Requirements additional discussion	Oct 6, 2022	✓
	<b>Refresher Training</b>	<b>Jan 24, 2023</b>	✓
Market Sim	Market Sim Window	Aug 22, 2022 – Nov 18, 2022	✓
		Start Nov 1, 2022	✓
Production Activation	<b>Hybrid Resources Phase 2-B</b>	<b>Feb 1, 2023</b>	
	<b>Hybrid Resources Phase 2-C Today's Outlook</b>		

# Fall 2022 – Flexible Ramping Product Improvements Deliverability

Project Information	Details/Date
<b>High Level Project Scope</b>	<p>The scope of the project FRP Deliverability is:</p> <ol style="list-style-type: none"> <li>1. Procurement of FRP for BAA's that fails the flex test is separate for each BAA.</li> <li>2. Procurement of FRP for BAA's that pass the flex test for the entire group of BAA.</li> <li>3. Transmission constraints and transfer limits are enforced in FRP deployment scenarios</li> <li>4. Distributing the uncertainty requirement in each BAA load and VER locations versus just load</li> <li>5. Distributing the demand curve surplus variable as a decision variable at load aggregation points (LAP) versus Balancing Authority Areas (BAA)</li> <li>6. To establish the Locational Marginal Capacity Prices (LMCP) for FRP</li> </ol> <p>The scope of the FRP Requirements Enhancements is:</p> <ol style="list-style-type: none"> <li>1. To enhance the current approach by adopting a quantile regression method to adjust the current flexible ramping product up and down requirement.</li> <li>2. Calculation of the demand curve.</li> </ol>
<b>BPM Changes</b>	Market Instruments, Market Operations
<b>Tariff Change</b>	Yes
<b>Impacted Systems</b>	RTM, Settlements, CMRI/OASIS
System	High Level Changes
<b>Real Time Markets (RTM)</b>	<ul style="list-style-type: none"> <li>• RTM to be impacted based on the change in the FRP procurement systems.</li> <li>• Input data needed for forecasted advisory in the binding interval for RTPD for approx. 40 work days or weekends.</li> <li>• New demand curve calculation is needed.</li> </ul>
<b>Settlements</b>	<ul style="list-style-type: none"> <li>• Prices are nodal therefore mechanics for cost allocation pricing to be changed</li> <li>• Nodal FRP prices</li> </ul>
<b>CAISO Market Results Interface (CMRI)/ Open Access Same time Information (OASIS)</b>	<ul style="list-style-type: none"> <li>• Publish Resource Nodal prices for the FRP awards (CMRI)</li> <li>• Publish requirements for FRP per BAA and BAA group (OASIS)</li> <li>• Publish surplus by LAP (OASIS)</li> <li>• Publish the nodal FRP prices (OASIS)</li> </ul>

# Fall 2022 – Flexible Ramping Product Improvements Deliverability

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	Sept 30, 2020	✓
External BRS	Flexible Ramp Product: Deliverability	Jan 28, 2021	✓
	Flexible Ramp Product: Requirements Enhancements	Mar 11, 2022	✓
	BRS 1.1	Aug 1, 2022	✓
	BRS 1.2	Aug 22, 2022	✓
Tariff	File Tariff	Aug 15, 2022	✓
	Tariff Accepted	Oct 18, 2022	✓
BPMs	Publish Draft BPM updates	Oct 24 2022	✓
	PRR Modifications	Dec 13-14, 2022	✓
Config Guides	Post Draft Config Guides	Jun 30, 2022	✓
Tech Spec	Publish Technical Specification – OASIS	July 15, 2022	✓
	<b>Revise Technical Specification – OASIS Flex Ramp Nodal Price Group zip break down to single hour</b>	<b>Jan 17, 2023</b>	✓
External Training	Deliver External Training	Sep 7, 2022	✓
	<b>Refresher Training</b>	<b>Jan 25, 2023</b>	
Market Sim	Market Sim Window	Oct 11, 2022 – Nov 18, 2022	✓
		Start Oct 18, 2022	✓
Production Activation	<b>FRP Deliverability</b>	<b>Feb 1, 2023</b>	

# Independent 2023 Releases

# WEIM Enhancements

Project Information	Details/Date
<b>High Level Business Problem or Need</b>	To collectively address important issues identified by WEIM market participants through Customer Inquiry, Dispute and Information system (CIDI) requests to improve the visibility, functions and features in Energy Imbalance Market (WEIM).
<b>High Level Project Scope</b>	<ul style="list-style-type: none"> <li>BAAOP: ETSR detail screen will be available to BOTH RTMO and WEIMs. (First drop for testing will only be available to RTMO).</li> <li>BAAOP: WEIM shared ramping constraint IS NOT editable through UI.</li> </ul>
<b>BPM Changes</b>	WEIM, Market Instruments
<b>Tariff Change</b>	Section 29.4
<b>Impacted Systems</b>	RTM/BAAOP, RTM/Integration

System	High Level Changes
<b>Real-Time Market (RTM)</b>	<p>BAAOP: WEIM shared ramping constraint IS NOT editable through UI. <b>March 2023</b></p> <ul style="list-style-type: none"> <li>Shared ramping capability constraint</li> <li>UI for WEIM entity input parameters for ramp sharing</li> <li>Use in the optimization for each resource based on BAA ramp share parameters</li> </ul>
<b>Real-Time Market (RTM)</b>	<p>BAAOP: ETSR detail screen <b>April 2023</b></p> <ul style="list-style-type: none"> <li>ETSR detail screen will be available to BOTH RTMO and WEIMs. (First drop for testing will only be available to RTMO).</li> <li>New ETSR detail screens</li> <li>Currently in "Coming Soon"</li> </ul>

# Operations Systems Improvements 2021/2022 Enhancements

Project Information	Description
<b>High Level Business Problem or Need</b>	<ul style="list-style-type: none"> <li>The goal of this project is to deliver timely systems improvements that support efficient day-to-day work and operations. The project aims to improve market robustness, performance, and the technology foundation for system grid reliability by updating functionality and interfaces to reduce workarounds, automating manual processes and addressing functionality enhancements. A list of specific high priority improvements will be the scope for the project. A number of these improvements may have an impact on the way in which customers interact with CAISO systems.</li> </ul>
<b>Affected Systems</b>	<ul style="list-style-type: none"> <li>A preliminary list of enhancements is included on the next slide.</li> </ul> <p>PLEASE NOTE: This list may change as the project progresses and priority are factored. The goal is to provide advanced notification of changes whenever possible</p>
<b>Schedule</b>	<ul style="list-style-type: none"> <li>External BRS                      2022 External BRS v1.0 Published 5/3</li> <li>    UPDATE v1.1 Published 8/12</li> <li>MAP Stage Availability        Multiple*</li> <li>Customer Training              Multiple*</li> <li>PROD                                 Multiple*</li> </ul> <p>* The plans for testing and deployment will vary between improvement items as these may be released individually or in groups. More information on specific improvements will be made available as planning and schedules are solidified.</p>

# Operations Systems Improvements Projects

## List of Proposed Improvements\*

\*PLEASE NOTE: This list may change as the project progresses and priorities are factored. The goal is to provide advanced notification of changes whenever possible

2023

System	Summary Description	
Market	Modify Unit Details UI	Outreach/Release Note – 2023  PROD - 2023

# 2023 Pre-Summer, and Future Releases

*Tentative, under further assessment*



# Overview - Tentative

Release	Project	BOG	Draft Tariff	Production Activation
<b>2023</b>	Washington WEIM Greenhouse Gas Enhancements Phase 1	Oct 2022 - Approved	10/22/22	2023
<b>2023 Pre-Summer</b>	Ancillary Service State of Charge Constraint		Filed 09/19/22  Accepted 11/18/22	2023
	Energy Storage Enhancements Phase 1 Track 1 – Ancillary Services & Exceptional Dispatch	Dec 2022 - Approved		6/1/23
	WEIM Resource Sufficiency Evaluation Enhancements Phase 2 Track 1	Dec 2022 - Approved	Revised 12/12/22	6/1/23
	Hybrid Resources Phase 2C			2023
<b>Future Release</b>	Transmission Service & Market Scheduling Priorities Phase 2	Feb 2023 - Decision		Pre-Summer 2024
	Day-Ahead Market Enhancements	Feb 2023 - Briefing		Fall 2024
	Extended Day-Ahead Market	Feb 2023 – Decision		Fall 2024
	On-Boarding			Spring 2025

# Independent 2023 – WA WEIM GHG Enhancements- Overview

Project Information	Details/Date
<b>High Level Business Problem or Need</b>	Pursuant to the State of Washington’s recently revised Clean Air Act, Washington will require reporting of emissions associated with WEIM transactions for year 2022 and beyond. In addition to emissions reporting, WA State generating resources will need to capture GHG costs in their reference levels.
<b>High Level Project Scope</b>	<ol style="list-style-type: none"> <li>1. Identify resources within the Washington State Boundary</li> <li>2. Update greenhouse gas reference levels (i.e. default energy bids and commitment costs)</li> <li>3. Develop reports to support WEIM Entity annual reporting to Washington State)</li> </ol>
<b>BPM Changes</b>	Energy Imbalance Market (EIM), Market Instruments
<b>Tariff Changes</b>	Sections 30.4.4.5, 30.4.5.2, 39.6.1.6.2, 39.7.1.1.1.1, 39.7.1.1.1.2, 39.7.1.1.1.4
<b>Impacted Systems</b>	MF, OASIS
System	High Level Changes
<b>MF</b>	<ul style="list-style-type: none"> <li>• New rule to verify that relevant resources within WA State must provide resource specified GHG emission rate</li> <li>• New attribute at the BAA level to identify BAAs associated with Washington State</li> <li>• New attribute to associate resources within WA State with the State of WA to identify resources with GHG obligation                             <ul style="list-style-type: none"> <li>• Exception: BPA—not subject to WA reporting rule</li> </ul> </li> </ul>
<b>OASIS</b>	<ul style="list-style-type: none"> <li>• Add WA GHG index prices to existing GHG Index Price OASIS report                             <ul style="list-style-type: none"> <li>• Only applicable for dynamic GHG pricing</li> </ul> </li> </ul>

# Independent 2023 – Ancillary Services State of Charge Constraint

Project Information	Details/Date
<b>High Level Business Problem or Need</b>	In spring of 2022, the Department of Market Monitoring (DMM) discovered undue market outcomes resulting from regulation down awards to or self-provisions by storage resources for long periods when paired with high energy bids from those resources. Both DMM and the CAISO have concluded that these excess bid cost recovery payments under these conditions cannot be justified by the principles underlying bid cost recovery.
<b>High Level Project Scope</b>	<p>Make storage resources ineligible for Bid Cost Recovery (BCR) uplift for certain market intervals in real time:</p> <ul style="list-style-type: none"> <li>• When the market state of charge (SOC) constraint is binding due to AS Awards causing the market to dispatch resource energy uneconomically.</li> <li>• Retroactively settle relevant intervals (beginning with effective date of 09/20/2022)</li> </ul>
<b>BPM Changes</b>	Market Instruments, Market Operations, Settlements and Billing
<b>Tariff Changes</b>	Sections 8.4.3, 8.4.1.1(g), 11.6.6 Note: Tariff filing completed on 09/19/2022
<b>Impacted Systems</b>	RTM, Settlements, CMRI
System	High Level Changes
<b>Real Time Markets (RTM)</b>	Capture RTD/RTPD AS SOC binding constraint shadow price data
<b>Settlements</b>	Design new bill determinants and configurations using the RTD/RTPD AS SOC binding constraint shadow price data for calculation of BCR ineligibility
<b>CAISO Market Results Interface (CMRI)</b>	Develop new external report to inform on AS SOC binding constraint for settlement purposes (resource specific—private report)

# 2023 CRR System Upgrade

# 2023 – Congestion Revenue Rights (CRR) Upgrade

Project Information	Details/Date
<b>High Level Project Scope</b>	<p>The Congestion Revenue Rights (CRR) system was implemented by CAISO in 2008 as part of the Market Redesign and Technology Upgrade (MRTU) implementation. The current CRR system is at its end of life, does not have the flexibility to accommodate future policy changes and requires the ISO to calculate data and run processes manually outside the current system to produce a successful CRR Auction.</p> <p>The CAISO has decided on a significant upgrade of the existing CRR system and adopt the latest technology stack aligned with CAISO's technology standards, consolidate all CRR related functions, minimize human errors, reduce processing time, eliminate manual workarounds, and positions the system to accommodate policy changes down the road.</p>
<b>BPM Changes</b>	<p>Congestion Revenue Rights</p> <ul style="list-style-type: none"> <li>• Enhancements made to the new CRR product.</li> <li>• Automatic publishing of CRR market results.</li> <li>• Automatic CRR notification.</li> <li>• New CRR schedule calendar.</li> <li>• New CRR FNM access.</li> <li>• New CRR data submission and download interface UI/API.</li> <li>• New CRR market results interface.</li> <li>• Load Migration</li> </ul>
<b>Tariff Change</b>	No
<b>Impacted Systems</b>	CRR, AIM, CMRI, OASIS, CTS, Market Clearing, EMMS, IFM/RTN, MQS, Master File, MPP, Settlements, WebOMS, ETCC.

# 2023 – Congestion Revenue Rights (CRR) Upgrade

System	High Level Changes
<b>CRR</b>	<p>Significant system upgrade including:</p> <ul style="list-style-type: none"> <li>• Enhancements made to the new CRR application.</li> <li>• Automatic publishing of CRR market results.</li> <li>• Automatic CRR notification.</li> <li>• New CRR schedule calendar.</li> <li>• New CRR FNM access.</li> <li>• New CRR data submission and download interface UI/API.</li> <li>• Other TBDs identified through BRS development.</li> </ul>
<b>AIM</b>	<ul style="list-style-type: none"> <li>• New users and roles to support new CRR functionality</li> </ul>
<b>CMRI</b>	<ul style="list-style-type: none"> <li>• Full and incremental Payload publishing</li> <li>• Publish CRR Awards payload on event-driven, ad-hoc or scheduled basis</li> <li>• Publish CRR Awards payload on event-driven, ad-hoc or scheduled basis</li> </ul>
<b>OASIS</b>	<ul style="list-style-type: none"> <li>• Publish CRR Calendar, and all available CRR market names, and credit margin information, 3 year historical expected value..</li> <li>• Allow authorized users to publish CRR inventory payloads</li> <li>• Broadcast the following: set aside values, the results of all CRR markets, retired pnode/anode mapping, binding constraints, initial and updated CRR source and sink list for each CRR market,</li> </ul>
<b>CTS</b>	<ul style="list-style-type: none"> <li>• Broadcast</li> </ul>
<b>EMMS</b>	<ul style="list-style-type: none"> <li>• CRR will consume data from EMMS</li> </ul>
<b>IFM/RTN</b>	<ul style="list-style-type: none"> <li>• CRR will consume data from IFM/RTN</li> </ul>
<b>MQS</b>	<ul style="list-style-type: none"> <li>• MQS will consume and process SCID in a new format</li> <li>• MQS will consume ownership payload in bulk</li> </ul>
<b>Master File</b>	<ul style="list-style-type: none"> <li>• Master File will be modified as needed to support the new CRR functionality</li> </ul>
<b>MPP</b>	<ul style="list-style-type: none"> <li>• CRR will provide pre-configured external reports</li> </ul>
<b>Settlement</b>	<ul style="list-style-type: none"> <li>• Settlements will be modified as needed to support the new CRR functionality</li> </ul>
<b>WebOMS</b>	<ul style="list-style-type: none"> <li>• CRR will consume data from WebOMS</li> </ul>
<b>ETCC</b>	<ul style="list-style-type: none"> <li>• CRR will consume data from ETCC</li> </ul>

## 2023 – Congestion Revenue Rights (CRR) Upgrade

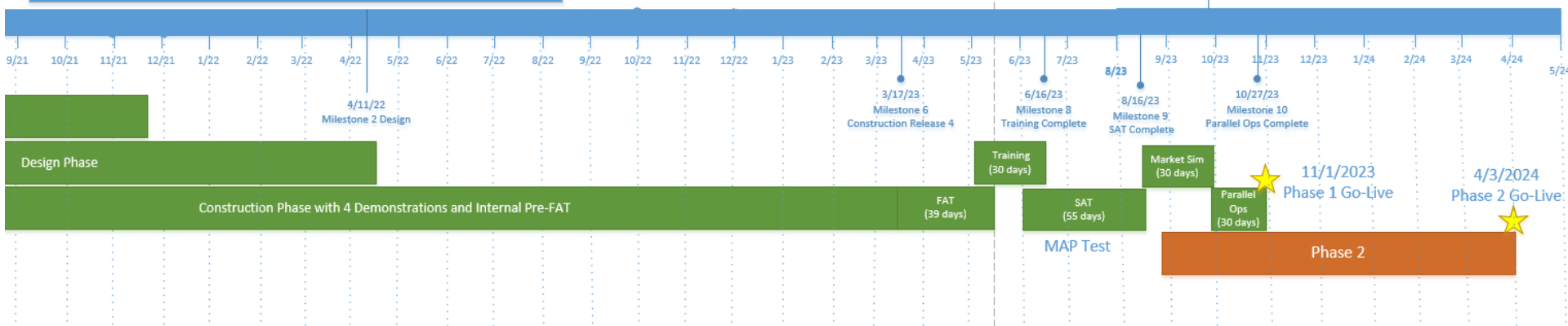
Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	N/A	
External BRS	Publish External BRS	N/A	
Config Guides	Post Draft Config Guides	N/A	
Tech Spec	Publish Technical Specification	Draft 11/5/21	✓
Tariff	File Tariff	N/A	
BPMs	Publish Draft BPM updates	Mar 1, 2023	
External Training	Deliver External Training	May 8, 2023 – Jun 16, 2023	
Market Sim	Market Sim Window	Aug 17, 2023 - Sep 27, 2023	
Production Activation	CRR Upgrade	Nov 1, 2023	
Effective Date	First Trade Date for Monthly Auction results on new system	Jan 1, 2024	
Phase 2 Production Activation	Phase 2 Go-Live	Apr 3, 2024	

# 2023 CRR System Upgrade – Milestone Schedule

## CRR System Replacement Timeline

Schedule approved by CAISO and RI

Contract amendment in progress



Phase 2 scope is being added to the External BRS.

[Link to Business Requirements Specifications - Congestion Rights Revenue Upgrade \(posted 5/10/2022\)](#)



# 2023 CRR System Upgrade – Get Connected

- CRR External meetings:
  - **Bi-weekly Technical User Group (TUG)** Tue 10 AM, alternates with RUG.
    - Meetings available on the CAISO calendar on [www.caiso.com](http://www.caiso.com)
    - Meeting details and presentation materials are available on the CAISO Developer site at [www.developer.caiso.com](http://www.developer.caiso.com) , which requires an account to be setup for access
  - **CRR Customer Partnership Group**
    - Next CPG meeting is Wed, 8/10 @ 10 AM

# WEIM Spring 2023 Release

# WEIM Spring 2023 – WEIM integrations for Avangrid, El Paso Electric, and WAPA Desert Southwest Region

Project Info	Details/Date
Application Software Changes	System modifications as needed to accommodate any unique Avangrid, El Paso Electric, and WAPA Desert Southwest Region needs to support their WEIM onboarding.
BPM Changes	WEIM BPM will be updated if needed to reflect changes identified during the onboarding and as required to reflect the unique processes of Avangrid, El Paso Electric, and WAPA Desert Southwest Region.
Market Simulation	December 2022 thru January 2023
Parallel Operations	February 2023 thru March 2023

Milestone Type	Milestone Name	Dates		
		Avangrid	El Paso Electric	WAPA Desert Southwest Region
Market Sim	Market Sim Window	Dec 2022 thru Jan 2023		
Parallel Operations	Parallel Operations	Feb 2023 thru Mar 2023		
Tariff	File Readiness Certification	Mar 2023		
Production	Activation	Apr 5, 2023		

# 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](http://www.caiso.com) for meeting dates and times and add events to your calendar
    - Typically held on Mondays and Thursdays
  - Market Performance and Planning Forum
    - Bi-monthly review of market performance issues
    - High level discussion of release planning, implementation and new market enhancements

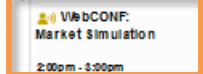
# What to look for on the calendar...

## Calendar of Meetings, Training and Events

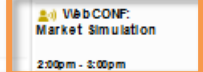
Month: February Year: 2018 Calendar View List View Print View

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) 3:30am - 9:30am 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 - 9:00am Call: Board of Governors Teleconference (Executive) 9:00am - 10:00am Call: Market Update 10:15am - 11:00am WebbCONF: Market Simulation	15	16	17

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Release Users Group (RUG)

