



California ISO

Release User Group

April 30, 2024

10:00 a.m.–11:00 a.m. (Pacific Time)

Web Conference Information	Conference Call Information
<p>Web Address: https://caiso.webex.com/caiso/j.php?MTID=m8f4dee2c7059898b3609c46be3cd2c20</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>https://www.caiso.com/informed/Pages/MeetingsEvents/UserGroupsRecurringMeetings/Default.aspx#RUG</p>	
<p>http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx</p>	

ISO Training Schedule

Training Course	Date and time
Pre-Market Simulation Webinar Training Import Allocation Automation	May 2, 2024 9:00am-10:00am
Customer Education Resource Operations Readiness Training Series: Session 1: Resource Performance Expectations Session 2: Battery Performance Expectations Session 3: Managing Intertie Transactions Session 4: WEIM Resource Performance Expectations	May 7, 2024 9:00 am -12:00 pm May 15, 2024 10:00 am -12:00 pm May 16, 2024 9:00 am -11:00 am May 22, 2024 9:00 am -11:00 am
CAISO Website Redesign Overview Webinar Training Session 1: CAISO Website Redesign Overview Webinar Training Session 2:	May 23, 2024 9:00 am -10:00 pm May 29, 2024 10:00 am -11:00 pm

New! Use our [Pre-Training Release Survey](#) to submit topics that you would like to see covered in the upcoming training.

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>



New training series: Resource Operations Readiness Training

Training Goal: to prepare customers in advance of summer to meet ISO expectations for successful resource management, especially during tight conditions.

These courses build on concepts shared during the May 1st Resource Interconnection Fair.

Resource Performance Expectations May 7th

- Dispatch/Operating instruction response
- Hybrid resource management
- Outage cards completion
- Flex Alerts/EEA response

Battery Performance Expectations May 15th

- Resource capabilities
- Correct Nature of Work
- Off-Grid Charging Indicator
- Physical management requirements

Managing Inertie Transactions May 16th

- Wheel-through concepts
- Export priority
- Tagging expectations
- Flex Alert/EEA

WEIM Resource Performance Expectations May 22nd

- Assistance Energy Transfer
- Demand Response process for WEIM

Registration opens Wednesday, March 20, 2024

Contact CustomerReadiness@caiso.com with questions.

Share this information with your staff!

Release Plan Summary

Summer 2024 Release

Transmission Service & Market Scheduling Priorities Phase 2 (✓ Monthly & Daily)
Transmission Exchange Agreement
ASSOC Retroactive Enhancement - Settlements

Independent 2024 Releases

WEIM Resource Sufficiency Evaluation Enhancements Phase 2 Track 2 – Post HASP Curtailments
URL & IP Changes (& AUP Changes) – Application Delivery Resiliency
Hybrid Resources Phase 2C – RIMS October 1, 2024
Congestion Revenue Rights System Upgrade
FERC 881 – Managing Transmission Line Ratings Track 2 – Operational/EMS Model Data & Applications Q4 2024
Highest Emergency Rating
Operations Foundational Improvements – CIRA Enhancement for Automation of Import Allocation Process
CAISO Website Replacement
Advisory Shutdown Flag Data

Spring 2026 Release

Day-Ahead Market Enhancements Activation
EDAM ISO BAA Participation Rules Track A
Extended Day-Ahead Market Activation
EDAM Onboarding Pacificorp & BANC
WEIM BHE Montana

Future Release

Settlement Upgrade Project – Next RUG/SUG quarterly update July 2024

Summer 2024 Release

Summer 2024 – Transmission Service & Market Scheduling Priorities

Phase 2

Project Information	Details
High Level Business Need	<p>Presents a long-term, durable framework to establish wheeling through scheduling priorities in the ISO markets that can further evolve with operational experience. It does not focus on, nor does it change, the processes for wheeling out or exporting from the ISO BAA.</p> <p>This project introduces a design to identify Available Transfer Capability (ATC) that can be allocated to Priority-Wheeling-Through (PWT) across the ISO system. This project also provides opportunity for external entities to drive transmission upgrades across the ISO system to support a wheeling-through. Will result in updates to the Wheel Export Quantity PC. The Original Wheeling Priority SC should be charged WAC for the Maximum of Wheeling Priority Quantity and scheduled export. If a resale should occur the purchaser of the resale Wheeling Priority Quantity should be assessed WAC on the maximum of schedule export less purchased Wheeling priority MW and zero.</p>
High Level Project Scope	<p>The following are the key design elements for Priority-Wheeling-Through (PWT) :</p> <ul style="list-style-type: none"> • Calculating PWT Available Transfer Capability (ATC) • Awarding PWT ATC to PWT Requests • Using PWT Awards in Market Operations • Settling PWT Awards and Schedules • Transmission Planning for PWT Capacity
BPM Changes	<ul style="list-style-type: none"> • Market Instruments – MF & SIBR Changes • Market Operations – ITS, DAM, RTM Changes • Reliability Requirements – Internal System Changes • Settlements and Billing – Settlements Changes • Transmission Planning Process – Impact for long term ATC • Generator Interconnection and Deliverability Allocation Procedures – Impact for long term ATC
Tariff Changes	<ul style="list-style-type: none"> • §23.1, §23.2, §23.3, §23.4, §23.5, §23.6, §23.7 • §26.1.4.5 • §30.5.1 • §34.12.3 • §Appendix A • §Appendix L • §Appendix DD • § New Appendix GG Long-Term Transmission Service & Market Scheduling Priorities
Impacted Systems	<ul style="list-style-type: none"> • AIM • CIRA • MF • New system for ATC calculation, access, and reservation • SIBR • RTM • Settlements • OASIS • RIMS

Summer 2024 – Transmission Service & Market Scheduling Priorities Phase 2

- Notice: <https://www.caiso.com/Documents/tsmsp-phase-2-automation-is-now-active-for-monthly-wheeling-through-priority-request-window-41924-52224.html>
- Transmission Service and Market Scheduling Priorities Phase 2 automation is now active for monthly wheeling through priority request window 4/19/24 - 5/2/24

The California ISO's Transmission Service and Market Scheduling Priorities Phase 2 (TSMSP2) automation via WebWheel, Open Access Same-Time Information System (OASIS), Master File and Customer Interface for Resource Adequacy (CIRA) is now active for the monthly priority wheeling through (PWT) available transfer capability (ATC) request window is April 19 through May 2, 2024 for target Monthly ATC period of June 2024 through May 2025. The WebWheel system is available at webwheels.caiso.com.

The monthly ATC values available for reservation and establishing wheeling through priority across the ISO system for June 2024 and beyond are available in the OASIS > Transmission > "ATC for PWT Requests" report.

TSMSP2 implements a new process for establishing wheeling through priority starting for June 2024 and beyond.

Under the new process, ATC is secured in advance on the ISO interties to establish wheeling through priority equal to ISO load. ATC can be reserved in Monthly increments (13-month horizon) or Daily increments (7-day horizon).

Wheeling through transactions without secured ATC in advance will have a lower market clearing priority.

This implementation of wheeling through priority process supports load service planning for Summer 2024.

As of April 19, 2024, the TSMSP2 automation via WebWheel, OASIS, Master File, and CIRA is now available to support reservation of Monthly ATC in June 2024 and beyond.

The PWT monthly ATC request window is now open as April 19, 2024 and goes through May 2, 2024 for the target Monthly ATC period of June 2024 through May 2025.

The monthly wheeling through priority request due dates are available on the [Reliability Requirements webpage](#).

The release and project information is available in the Release User Group presentations available on the [User groups and recurring meetings webpage](#) and on the [Release Planning webpage](#).

Summer 2024 – Transmission Service & Market Scheduling Priorities Phase 2

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	Feb 01, 2023	✓
External BRS	Post External BRS	Jan 31, 2024	✓
Settlements	Tech Doc	Feb 12, 2024	✓
Config Guides	1 st Draft Config File & Release Component Summary	March 4, 2024	✓
Tech Spec	Create ISO Interface Specifications – OASIS	Jan 12, 2024	✓
Tariff	Filed ER23-2510 for Wheeling Through	Jul 28, 2023	✓
	FERC Acceptance of ER 23-2510 (calculation of available transfer capability (ATC) and the process for establishing market scheduling priority for wheeling through the ISO transmission system)	Oct 30, 2023	✓
	Compliance Filing	Nov 29, 2023	✓
	Petition for Limited Waiver for resale or assignment of monthly Wheeling Through Priority	Apr 12, 2024	✓
	Track 2 DTL	Jul 14, 2023	✓
	Track 2 Revised DTL	Oct 05, 2023	✓
	Track 2 Final DTL	Dec 19, 2023	✓
BPMs	File Track 2 (study and expansion process for establishing wheel through priority on a long-term basis)	Q1 2024	
	Draft BPM changes – Market Instruments (PRR1558)	Mar 20, 2024	✓
	Draft BPM changes – Market Operations (PRR1548)	Jan 16, 2024	✓
	Draft BPM changes – Market Operations (Automation) (PRR 1570)	Apr 19, 2024	✓
	Draft BPM changes – Reliability Requirements		
	Draft BPM changes – Settlements and Billing (PRR1560)	Mar 20, 2024	✓
Training	Draft BPM changes – Transmission Planning Process		
	Draft BPM changes – Generator Interconnection and Deliverability Allocation Procedures		
Training	Training (Monthly)	Feb 27, 2024	✓
	Training (Daily)	Apr 04, 2024	✓
Production Activation	Implementation of wheeling through priority process supports load service planning for Summer 2024		
	ISO begin implementation thru manual processes		
	- Publication of Monthly ATC values for June 2024 to January 2025 (13-month horizon)	Jan 16, 2024	✓
	- Request window opened (Submit via CID)	Jan 18 – Jan 31, 2024	✓
	- Results communicated	Feb 5, 2024	✓
	Monthly Scope: New automation functionality available to support reservation of Monthly and Daily ATC in June 2024 and beyond	Apr 19, 2024	✓
Daily Scope: Transmission Service & Market Scheduling Priorities Phase 2 – Activate daily and long-term increment calculations	Jun 01, 2024		
Resale Scope: Resale or Assignment of Monthly Wheeling Through Priority	2024		
OASIS ETC Data	2024		
	2024 Monthly Wheeling Through Priority Request Due Dates		

Summer 2024 – Transmission Service & Market Scheduling Priorities Phase 2

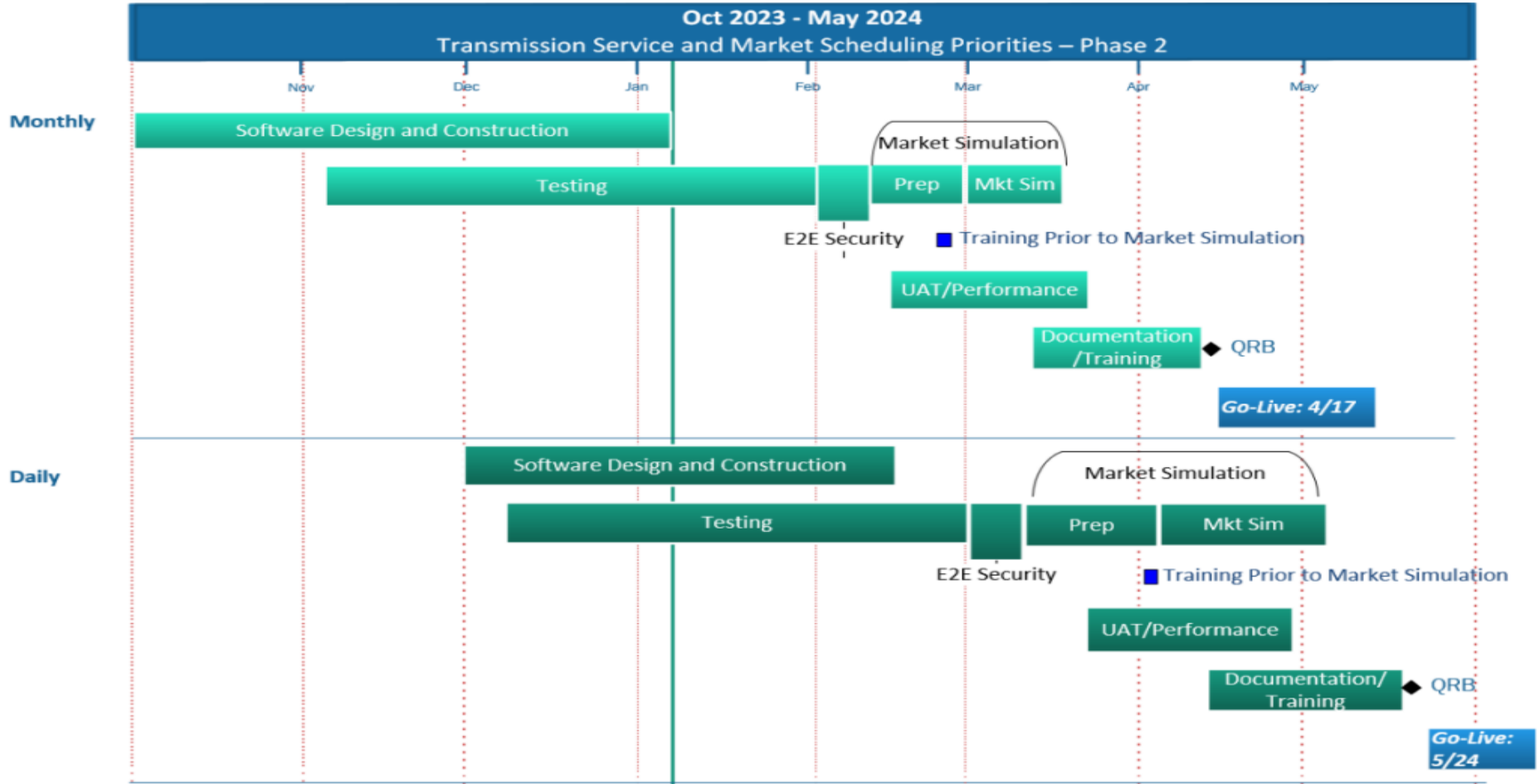
Implementation Key Milestones

Item	Date
Monthly	
Market Simulation prep	
Training prior to Market Sim	February 27
Market Simulation	March 4 to March 29
Go-Live	April 17
Daily	
Market Simulation prep	
Training prior to Market Sim	April 4
Market Simulation	April 30 – May 17
Go-Live	May 24 (earliest date) for June 1

**Market Simulation Settlements Trade Dates Tuesdays & Thursdays thru Market Simulation Windows for Daily Process*

Summer 2024 – Transmission Service & Market Scheduling Priorities Phase 2

Automated Functionality Implementation Timeline



Summer 2024 – Transmission Service & Market Scheduling Priorities Phase 2

2024 Monthly Wheeling Through Priority Request Due Dates

Target Monthly ATC Period	Request Submission Start Date	Request Submission End Date
Jun/2024 – Jan/2025	01/18/2024	01/31/2024
Jun/2024 – Feb/2025	02/18/2024	03/02/2024
Jun/2024 – March/2025	03/19/2024	04/01/2024
Jun/2024 – April/2025	04/19/2024	05/02/2024
Jun/2024 – May/2025	05/19/2024	06/01/2024
Jul/2024 – June/2025	06/19/2024	07/02/2024
Aug/2024 – Jul/2025	07/20/2024	08/02/2024
Sep/2024 – Aug/2025	08/19/2024	09/01/2024
Oct/2024 – Sept/2025	09/19/2024	10/02/2024
Nov/2024 – Oct/2025	10/19/2024	11/01/2024
Dec/2024 – Nov/2025	11/19/2024	12/02/2024
Jan/2025 – Dec/2025	12/20/2024	01/02/2025

<https://www.caiso.com/Documents/2024MonthlyWheelingThroughPriorityRequestDueDates.pdf>

Summer 2024 – Transmission Exchange Agreement

Project Information	Details/Date
High Level Business Problem or Need	<p>The ISO is committed to develop a process or system that allows Western Area Power Administration – Sierra Nevada Region (“WAPA”) to resell some or all of their 400 MW ownership rights on the PAC#1 line to other SCIDs and retain the perfect hedge and scheduling priority to further contract negotiations to extend the term of the Transmission Exchange Agreement.</p> <p>The Transmission Exchange Agreement (“TEA”) with WAPA-SNR, PG&E and ISO is scheduled to expire 9/30/2024. A term of the original agreement executed in 2004, was that the ISO would develop a system that allowed WAPA to sell their unused capacity on their line. This project provides solution to the scheduling issue which needs to be in place by June 2024 to ensure that the ISO has solved the problem and support filing an amendment and extension of the TEA at FERC.</p>
High Level Project Scope	<ul style="list-style-type: none"> • WAPA needs functionality to sell their TOR to other parties on their OASIS. • If the TOR rights are sold then WAPA will notify the CAISO to provide the purchaser the hedging and scheduling priority opportunity provided all ETCs/TORs. • The market and settlement systems need to be able to “move” the Contract Reference Number (“CRN”) from the WAPA CRN to the purchaser SCIDs so that the settlement to the purchaser SCID reverses the costs of the transmission access charge and congestion (aka the perfect hedge) and provides a high scheduling priority in the IFM and RTM. • WAPA will not take on the obligation to settle with their purchaser. • WAPA can sell any increments of MWs up to their 400 MW ownership rights. Therefore, the solution needs to be flexible enough to allow the “existing” TORs to vary the MWs capabilities. [Note: The MW increments to be sold can be no less than 5 MW.] • WAPA’s functionality allows them to schedule between Malin and Round Mountain, Malin and PG&E DLAP, and Malin and Tracy. This would be the source and sink that that functionality needs to provide. • If there are outages on the line, the curtailment should be consistent with current practice.
BPM Changes	Settlements Configuration Guides
Tariff Changes	N/A
Impacted Systems	AIM, MF, CMRI

Summer 2024 – Transmission Exchange Agreement

Milestone Type	Milestone Name	Dates	Status
External BRS	Post External BRS	NA	
BRS	Provide to WAPA	Jan 23, 2024	✓
Settlements Config Guides	Tech Doc 1st Draft Config File & Release Component Summary	Feb 12, 2024 Mar 04, 2024	✓ ✓
Tech Spec	Create ISO Interface Specifications – CMRI UI: The current CMRI CRN report is not being changed. WAPA will be able to see Sub CRNs mapped to its own Parent CRN	Mar 26, 2024	✓
Tariff	NA	NA	
BPMs	Draft BPM changes – Settlements & Billing PRR 1559	Mar 20, 2024	✓
Market Simulation	Market Simulation – WAPA	Jun 17 – July 05, 2024	
Production Activation	Transmission Exchange Agreement Renegotiation	Aug 1, 2024	

Summer 2024 Settlements Release – ASSOC Flag Enhanced Logic

- **Presented in [SUG 2024](#)**
- Upstream systems are making an enhancement to indicate when the (potentially uneconomical) energy schedule of the storage resource in the financially-binding interval might be driven (in part) by binding AS SOC constraints in any advisory interval due to AS obligations. This information is communicated to Settlements for BCR Shortfall evaluation.
- Upstream systems will validate AS Awards driving AS SOC binding condition. Settlement configuration will no longer check whether AS Awards are present in the same interval as AS SOC flags in RTM_NET_AMT_PC so ResourceASSOCConASRevenueAmount rmdhcif will be removed.
- Allow for corrections of AS SOC flags from 1 to 0, or 0 to 1.
- Retro-active corrections from TD 07/01/2023 onwards will require corrected AS SOC flags and Settlement to re-process them
- The “Market Operations” BPM has been updated to reflect this change. Please refer to PRRs 1547 and 1567.
- The “Settlements & Billing” BPM PRR 1561 is submitted
- **In Market Simulation with Summer Release – started 4/16**

Independent 2024 Releases

Apr 2024 – WEIM Resource Sufficiency Evaluation Enhancements Phase 2 Track 2

Project Information	Details
<p>High Level Project Scope</p>	<ul style="list-style-type: none"> • Track-2 <ul style="list-style-type: none"> • Item2A – Clarification of Post-HASP Block Hour Low-Priority Export <ul style="list-style-type: none"> • Operator-Driven Low-Priority Export Curtailment <ul style="list-style-type: none"> • CAISO operator’s ability to initiate pro-rata curtailment based on identified MW, given the following priority order: <ul style="list-style-type: none"> • RTECON (RT economic hourly block export schedules that clear HASP). • RTLPT (RT Self-Schedule hourly block export schedules not backed by Generation from non-RA Capacity and cleared HASP). • Non-high-priority DA export [i.e. DAEMON (DA economic hourly block export schedules that clear both RUC and HASP), or DALPT (DA hourly block export schedules not backed by Generation from non-RA Capacity that also cleared both RUC and HASP and are protected Self-Schedules)] • CAISO operator’s ability to identify/filter exports by market priority types as well as “Firm Provisional Energy (G-FP)” eTag identifier. • Publish resource-specific market priority types and their associated MW data to ADS. • Item2B – Develop MF resource identification Capacity Test Failed-to-Start Rule Exemption flag to allow SCs of WEIM and CISO short start units that start with non-positive telemetry to identify specific resources that will be exempted from this functionality in RSE Capacity test. (Implemented in Phase 1 – enhancements needed)
<p>BPM Changes</p>	<p>WEIM, Market Instruments, Market Operations</p>
<p>Tariff Changes</p>	<p>Yes</p>
<p>Impacted Systems</p>	<p>MF, Market, ITS, ADS</p>

Apr 2024 – WEIM Resource Sufficiency Evaluation Enhancements Phase 2 Track 2

System	High Level Changes
MF	<ul style="list-style-type: none"> • Definition and Submission of Resource-Specific Capacity Test Failed-to-Start Rule Exemption Flag via GRDT • Make Resource-Specific Capacity Test Failed-to-Start Rule Exemption flag accessible to downstream systems.
ITS	<ul style="list-style-type: none"> • Clarification of Post-HASP Block Hour Low-Priority Export • Consume DAM Resource-Specific Market Priority Types and Resource-specific RUC Energy Awards from RUC. • Consume All Resource-Specific Market Priority Types from RTM. • SCs shall be required to submit Misc Info field Prior Type attribute for “Firm Provisional Energy (G-FP)” e-tags to identify RTECON, DAECON, RTLPT, DALPT. • SCs shall be required to submit Misc Info field Prior Type attribute for “Firm Energy (G-F)” e-tags to identify RTPT, DAPT. • Validate submitted export e-Tags against data received from RUC and RTM to approve/deny and adjust (if warranted) the submitted e-Tags.
Market	<ul style="list-style-type: none"> • Access Resource-Specific Capacity Test Failed-to-Start Rule Exemption flag from MF. • Exempt Specific Resources from Capacity Test Failed-to-Start Rule/Functionality. • Clarification of Post-HASP Block Hour Low-Priority Export • Broadcast All Resource-specific market priority types to ITS (from RTM).
ADS	<ul style="list-style-type: none"> • Clarification of Post-HASP Block Hour Low-Priority Export <ul style="list-style-type: none"> • Consume Resource-Specific Market Priority Types and their Associated MW Data from RTM. • Publish Resource-Specific Market Priority Types and their Associated MW Data. • Include Resource-Specific Market Priority Types in ADS Query Functionality.

Apr 2024 – WEIM Resource Sufficiency Evaluation Enhancements Phase 2 Track 2

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval WEIM Governing Board Approval	Dec 14, 2022	✓
External BRS	Post External BRS	Mar 10, 2023	✓
	Post External BRS v1.1	Mar 31, 2023	✓
	Post External BRS v1.2	Jun 27, 2023	✓
	Post External BRS v1.3	Sep 05, 2023	✓
	Post External BRS v1.4	Sep 20, 2023	✓
	Post External BRS v1.41	Sep 21, 2023	✓
Settlements Config Guides	NA	NA	
Tech Spec	ADS	Aug 10, 2023	✓
	CMRI	Aug 10, 2023	✓
	MFRDT Tech Spec	Aug 10, 2023	✓
	MFRDT File Draft	Aug 22, 2023	✓
	RDT Definitions Draft	Aug 29, 2023	✓
Tariff	Tariff (NA, and NA for activation change from Fall 2023 Release to 2024)	NA	
BPMs	Draft BPM changes – Market Instruments PRR 1531	Aug 23, 2023	✓
	Draft BPM changes – WEIM PRR 1532	Aug 24, 2023	✓
	Draft BPM changes – Market Operations PRR 1533	Aug 24, 2023	✓
	Draft BPM changes – Market Instruments PRR 1537	Aug 25, 2023	✓
	Draft BPM changes – Market Operations PRR 1536	Aug 24, 2023	✓
	Draft BPM changes – Market Operations PRR 1568	Mar 28, 2024	✓
Training	Training	Sep 13, 2023	✓
	Low Priority Transaction (LPT) Export E-tagging Training	Feb 14, 2024	✓
	Refresher Training (includes LPT Export E-tagging)	Mar 14, 2024	✓
Market Sim	Market Sim Window	Sep 25, 2023 – Oct 13, 2023	✓
	Market Sim – Pro Rata Curtailment	Mar 19, 2024 – May 03, 2024	
Production Activation	Resource Sufficiency Evaluation Enhancements Phase 2 Track 2	June 2024	

URL & IP (& AUP) Changes – Application Delivery Resiliency: Weekly Forum for Production Transition

- Dedicated forum with increased focus on ADR to continue to engage with and support customers thru the Production Transition to new User Interface (UI) and Application Programming Interface (API) URLs, IP addresses, and infrastructure, including associated Acceptable Use Policy (AUP) updates
- Weekly on Wednesdays 1400-1500 PT starting, January 24, 2024
 - <https://caiso.webex.com/caiso/j.php?MTID=ma49ce28a3ddca64e2d501f899778f620>
 - Presentations & Recordings:
<https://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx#Independent2024>
- Increase awareness of ADR implementation/cutover status and timelines
- Provide guidance for users on their transitions to the new URLs
- Communicate known issues as applicable
- Review user feedback

UI & API URL & IP Changes (Application Delivery Resiliency)

- UI:
 - All new UI URLs available now
 - Old UI URLs for BAAOP/BSAP to be decommissioned TBD
- API:
 - All new API URLs available now
 - Old API URLs to be cutover TBD

Last call was, April 17, 2024 1400 PT

2024 – Hybrid Resources 2C RIMS

Project Information	Details/Date
<p>High Level Business Problem or Need</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 (hybrid and co-located resources) project participation in the ISO markets.</p> <p>Prior to this initiative, Phase 1 identified a first set of modifications generally concerned with setting up and operating co-located resources.</p> <p>Building on phase 1, Phase 2 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>High Level Project Scope</p>	<p>With this initiative, there’s an opportunity to increase storage and the number of hybrid resources that can connect to the ISO grid. Currently the interconnection queue includes more than 24,000 MW of mixed fuel projects and nearly 20,000 MW of storage which represents roughly half of all generation in the current interconnection queue.</p>
<p>BPM Changes</p>	<p>Settlements & Billing</p>
<p>Impacted Systems</p>	<p>Summer 2023: Settlements Fall 2023: Metered Quantities for Hybrids Independent 2024: RIMS Completed: Today’s Outlook, ISO Today Mobile Application, Reports</p>
<p>Requirements</p>	<p>http://www.caiso.com/Documents/BusinessRequirementsSpecifications-HybridResourcesPhase2.pdf</p>

2024 – Hybrid Resources 2C RIMS

Milestone Type	Milestone Name	Dates	Status
External BRS	Publish External BRS Revision – Add 4 Market Simulation Business Requirements	Jan 31, 2023 Jan 04, 2024	✓ ✓
Settlements Config Guides	NA for RIMS	NA	
Tech Spec	Create and Publish ISO Interface Spec (Tech Specs)	NA	
Market Sim	Market Sim Window – RIMS	Yes	
Production Activation	Hybrid Resources 2C – RIMS	Oct 1, 2024	

2024 - Congestion Revenue Rights (CRR) Upgrade

Project Information	Details/Date
High Level Project Scope	<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> <p>Congestion Revenue Rights (CRR) system replacement project scope is the roll-out of a:</p> <ul style="list-style-type: none"> • Brand new user-interface (UI) system with an updated new look -and- feel, to replace the existing legacy system implemented during the MRTU 2008 go-live and brought up to current ISO technology standards • Set of application-programming interfaces (APIs) to enable integration between ISO and market participant systems <p>Overall, to support the following in one consolidated CRR external-facing system:</p> <ul style="list-style-type: none"> • Annual/Monthly Auction and Allocation market participant bid submission and results retrieval • Load data submission by CRR LSEs, CEC • Load migration data submission by CRR UDCs • Secured "Congestion Revenue Rights Full Network Model" information access • Private and public access of CRR market input and output information
BPM Changes	<p>Congestion Revenue Rights</p> <ul style="list-style-type: none"> • Enhancements made to the new CRR product. • Automatic publishing of CRR market results. • Automatic CRR notification. • New CRR schedule calendar. • New CRR FNM access. • New CRR data submission and download interface UI/API. • New CRR market results interface. • Load Migration
Tariff Change	<p>No</p>
Impacted Systems	<p>CRR, AIM, CMRI, OASIS, CTS, Market Clearing, EMMS, IFM/RTN, MQS, Master File, MPP, Settlements, WebOMS, ETCC.</p>

2024 - Congestion Revenue Rights (CRR) Upgrade

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

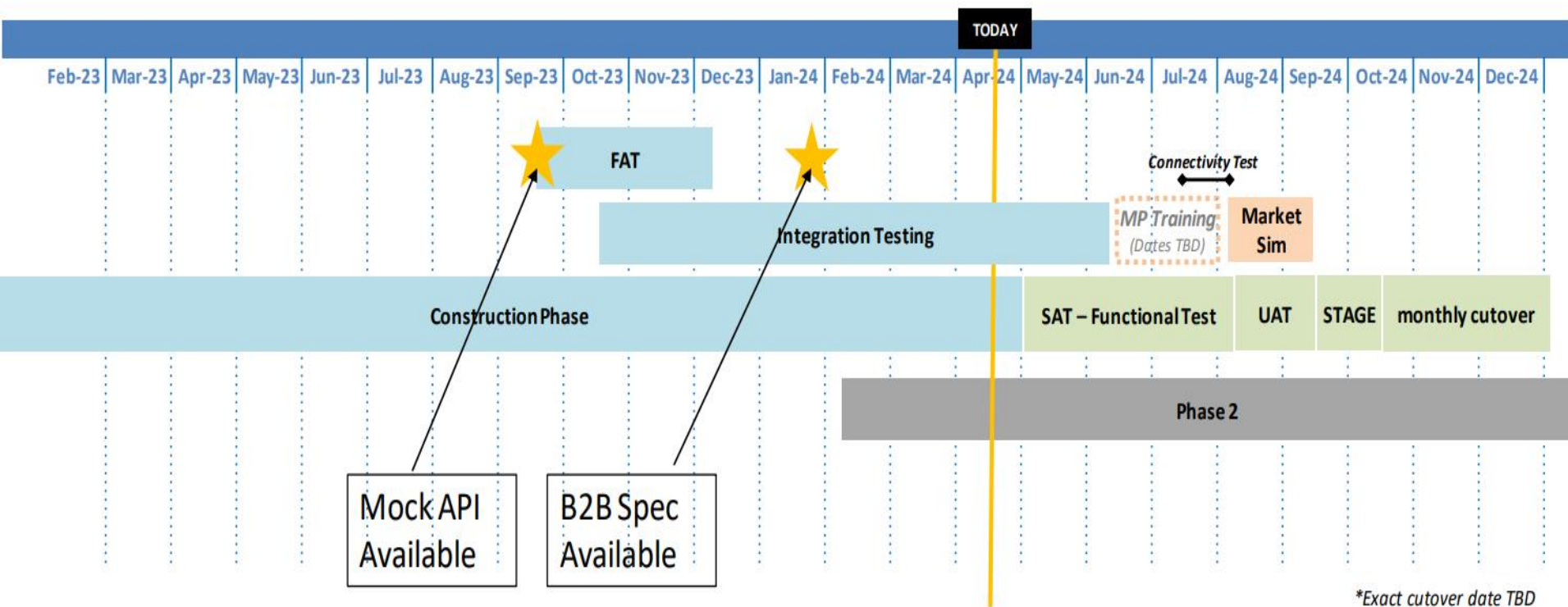
2024 - Congestion Revenue Rights (CRR) Upgrade

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	NA	
External BRS	Publish External BRS BRS Revision v1.3	Nov 16, 2022 Mar 29, 2023	✓ ✓
Config Guides	Post Draft Config Guides	Yes	
Tech Spec	Publish Technical Specification	Feb 24, 2023	✓
Deployment Plan	Draft Deployment Plan	Yes	
Training	Training	Yes	
Customer Partnership Group	Last CPG	Apr 18, 2024	✓
	Next CPG (Now on Thursdays)	May 23, 2024	

2024 - Congestion Revenue Rights (CRR) Upgrade

Updated April 2024

- No change since March CPG meeting discussion
- Annual Cycle Cutoff will be on current CRR System
- Monthly Cycle Cutoff will be for Jan 1st 2025 on new CRR System



*Exact cutover date TBD

2024 - CRR System Upgrade – Get Connected

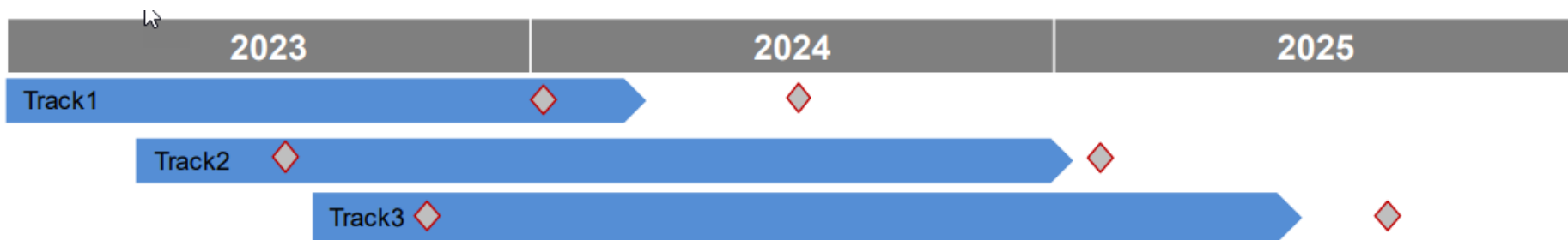
- CRR meetings:
 - **Bi-weekly Technical User Group (TUG)** Tue 10 AM, alternates with RUG.
 - Meetings available on the CAISO calendar on www.caiso.com
 - Meeting details and presentation materials are available on the CAISO Developer site at www.developer.caiso.com , which requires an account to be setup for access
 - **CRR Customer Partnership Group**
 - **Last CPG April 18, 2024; [recording available](#)**
 - **Next CPG meeting is *Thursday, May 23, 2024***
 - Monthly – ***now on Thursdays***
 - Meetings available on the CAISO calendar on www.caiso.com
 - Meeting details and presentation materials are available on www.caiso.com > Stay Informed > Meetings & Events > Customer Partnership Groups

2024 – FERC 881 – Managing Transmission Line Ratings

Project Information	Details/Date
High Level Project Scope	<p>This initiative will address the California ISO’s compliance with FERC Order No. 881 in establishing new transmission line rating requirements</p> <p>Order No. 881 establishes new transmission line rating requirements for public utility transmission providers</p> <ul style="list-style-type: none"> • Establish and use ambient-adjusted ratings and seasonal ratings for all transmission lines unless excepted <ul style="list-style-type: none"> • Use AARs for near-term transmission service requests • Use seasonal rating for long-term transmission service requests • RTOs/ISOs must implement systems and procedures to allow transmission owners to electronically update transmission line ratings at least hourly • Use uniquely determined emergency ratings for contingency analysis in the operations horizon and in post-contingency simulations of constraints • Implement transparency reform

Milestone Type	Milestone Name	Dates	Status
Tariff	Draft Tariff Language	May 20, 2022	✓
	Revised Draft Tariff Language	Jun 23, 2022	✓
	FERC Filing ER22-2362	Jun 16, 2022	✓
	FERC Acceptance ER22-2362	Apr 20, 2023	✓
	FERC Acceptance Tariff Revisions	Dec 13, 2023	✓
BRS	Publish BRS – Track 1	Jan 30, 2024	✓
Market Simulation	Market Simulation	NA	
Production	Track 1 Real-Time Reliability Applications	Apr 1, 2024	✓
	Track 2 Operational/EMS Model Data & Applications	Q4 2024	

FERC 881 Timelines by Track



- **Track 1 – Real Time Reliability Applications**
 - Minor delays in application deliver timeline with FAC-11 additions to the project
 - Estimated - Target Capability to be ready by Q2 2024
- **Track 2 – Operational/EMS Model Data and Applications**
 - July 2023 - Complete Business Requirements
 - OATI Webliner product will be utilized for receiving Look ahead ratings.
 - Estimated - Target Capability to be ready in 2024
- **Track 3 – Market Application and Look Ahead Applications**
 - Requirements phase will be started in Jan 2024.
 - Based on requirements gathering and vendor/internal resources constraints potential for delay in some aspects of implementation.
 - Estimated - Target Capability to be ready in Q2 2025.

2024 – Highest Emergency Rating

Project Information	Details/Date
High Level Business Problem or Need	The project aims to primarily 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 minor defects or functionality enhancements identified in by the business units.
High Level Project Scope	<p>This enhancement focuses specifically on internal ISO users and RC Customers having the capability to adjust the HER and ER duration in OMS.</p> <p>Step 1 – HER data cleanup</p> <ul style="list-style-type: none"> • Load HER in EMMS in one of the existing slots • Transfer HER to RTCA during the network model build process <p>Step 2 – Use RTCA to update HER</p> <ul style="list-style-type: none"> • For interim changes to HER in between models, change the data directly in RTCA • Make the ER and HER duration and value fields editable • Include validation to make sure HER is not less than the emergency rating <p>Step 3 – WebOMS changes</p> <ul style="list-style-type: none"> • Work with OATI to include a new field for HER • HER can be updated in WebOMS in between model promotions • Updates to HER will be sent to downstream systems
BPM Changes	Not Impacted
Tariff Changes	Not Impacted
Impacted Systems	webOMS, HANA, Market

Milestone Type	Milestone Name	Dates	Status
Board	Board	NA	
BRS	BRS BRS 1.1	Feb 15, 2024 Apr 10, 2024	✓ ✓
Tech Spec	Present OMS in TUG OMS	Feb 27, 2024 Yes	✓
Market Simulation	Market Simulation	Yes	
Production	Production	Q2/Q3 2024	

Highest Emergency Rating - OMS

- Three new fields will be added on the current OMS Derate User Interface and user will have capability to adjust the values through UI and API:
 - “Emergency Rating Duration” as integer, set in minutes.
 - “Highest Emergency Rating” as a numeric input.
 - “Highest Emergency Rating Duration” as integer, set in minutes.

The screenshot shows the 'Equipment Picker' interface with three main data tables:

- Equipment Table:** Columns include Station, Name, Voltage, Type, Switch Modeling Complete, Use Facility Model, and ID.
- Switches Table:** Columns include Station, Name, Voltage, Type, Status, Start Date/Time, End Date/Time, ID, and Is Trumped.
- Equipment Rating Changes Table:** Columns include Name, Voltage, Normal Rating (MVA), Seasonal Normal Rating, Emergency Rating (MVA), Seasonal Emergency Rating, Start Date/Time, and End Date/Time.

Red arrows in the image point to the following columns in the Equipment Rating Changes table:

- Emergency Rating Duration:** Points to the 'Emergency Rating (MVA)' column.
- HER:** Points to the 'Seasonal Emergency Rating' column.
- HER Duration:** Points to the 'Start Date/Time' column.

WebOMS will give validation error if below conditions are not satisfied:

Rating Limits and Durations are not defined for ERC.

Highest Emergency Rating is less than active Emergency Rating.

Highest Emergency Duration is greater than Emergency Rating Duration.

If HER Limit and Duration values are partially complete.

If user want to enter ER greater than the current HER then would first have to adjust HER then update ER.

- If neither HER Limit and Duration values are defined, system should auto-fill the HER Limit and Duration values to match their associated Emergency Rating Limit and Duration values.
- Emergency Rating (ERC) flows to Market, RTCA, and EMS; and HER only flows to RTCA, and EMS. WebOMS will display a pop-up notification on submitting the ERC or HER through UI,API akin to SUCCESS message
- There will be XSD update on below services :
 - SubmitTransmissionOutage_v3-Regular and DocAttach
 - SubmitTransmissionOutageChangeRequest_v3-Regular and DocAttach
 - RetrieveTransmissionOutage_v3 - Regular and DocAttach
 - RetrieveTransmissionOutageChangeRequest_v3 - Regular and DocAttach.

2024 – OFI CIRA Import Allocation Automation

Project Information	Details/Date
High Level Business Problem or Need	The project aims to primarily automate the import allocation OES processes in steps 8-13. Delivering timely systems improvements that support day-to-day needs of Operations (OE), Operations Engineering Services (OES), and Market Services (MSE) groups.
BPM Changes	Reliability Requirements
Impacted Systems	CIRA

Milestone Type	Milestone Name	Dates	Status
Board	Board	NA	
BRS	BRS	Apr 12, 2024	✓
User Guide	CIRA User Guide www.caiso.com > Participate > Application Access > CIRA	Apr 29, 2024	✓
Training	Training	May 2, 2024	
Market Simulation	Market Simulation	May 06 – May 17, 2024	
Production	Production	Jun 2024	



A new **caiso.com** is coming in late May

Training sessions will be held on
May 23 from 9:00 a.m. – 10:00 a.m.
May 29 from 10:00 a.m. – 11:00 a.m.

Watch the Daily Briefing for details and
follow us on social media.

2024 – Advisory Shutdown Flag Data

Project Information	Details/Date
High Level Business Problem or Need	<p>Problem: Missing input data value for existing BD, BA_5M_RSRC_ADVISORY_SHUTDOWN_FLAG, prevents CAISO from qualifying Minimum Load Cost consistent with Tariff 11.17.2.1, even if Settlements formulations currently exist.</p> <p>Solution: Work with upstream units to ensure advisory shutdown instruction data is broadcasted so that advisory shutdown flag BD can be created Use the input and reflect Minimum Load Costs qualification in Settlements</p>
BPM Changes	Settlements & Billing, Market Instruments
Impacted Systems	Settlements, CMRI

Milestone Type	Milestone Name	Dates	Status
Board	Board	NA	
BRS	BRS	May 15, 2024	
BPM	Settlements & Billing PRR 1571 - Updating SUC MLC PC BPM documentation for Advisory shutdown flag for MLC qualification	Apr 26, 2024	✓
	Market Instruments	Yes	
Tech Spec	CMRI Tech Spec	May 10, 2024	
Training	Training	Jun 11, 2024	
Market Simulation	Market Simulation	Jun 25 – Jul 10, 2024	
Production	Production	By Aug 1, 2024	

The following advisory shutdown flag data slides are for reference and were covered in the Apr 24, 2024 Settlement User Group (SUG), presentation and recording available here: www.caiso.com > Stay Informed > Meetings & Events > User groups and recurring meetings > Settlement User Group



Advisory Shutdown Flag Data, Potential MLC Disqualification

Mel Ciubal
CAISO, Market Services

4/30/2024

Problem Statement & Resolution

- Problem:
 - Missing input data value for existing BD, BA_5M_RSRC_ADVISORY_SHUTDOWN_FLAG, prevents CAISO from qualifying Minimum Load Cost consistent with Tariff 11.17.2.1, even if Settlements formulations currently exist.
- Solution:
 - Work with upstream units to ensure advisory shutdown instruction data is broadcasted so that advisory shutdown flag BD can be created
 - Use the input and reflect Minimum Load Costs qualification in Settlements

Tariff 11.17.2.1

Disqualification Based on Advisory Schedules

From Dispatch Interval in which CAISO has determined DOP minus **Shut-Down State Variable** \leq Minimum Load, and until Shut-Down State Variable is reset, IFM, RUC, or RTM Minimum Load Costs, will be disqualified from BCR.

DOP – dispatch operating point

BCR – bid cost recovery

IFM, RUC, RTM – markets/process

Shut-Down State Variable

- Keeps track of +UIE once an advisory Shut-Down Instruction is issued to a resource. Provides MWh cumulative over RTUC Intervals had resource followed Shut-Down Instruction.
- Begins to accumulate +UIE as soon as an advisory shutdown instruction exists w/in RTM dispatch horizon and continues to accumulate +UIE as long as (1) unit is On, and (2) Metered Energy less Regulation Energy less EE > Performance Metric Tolerance Band.
- Will be reset to zero when most recent RTUC run no longer has an advisory shutdown instruction w/in RTM dispatch horizon or when resource is Off.

+UIE – positive uninstructed imbalance energy

RTUC – Real-Time Unit Commitment

EE – expected energy

What's the Mitigation Measure?

- This Tariff section was included as part of implementing the Bid Cost Recovery Mitigation Measures initiative around 2014. Please refer to section 10 of [BCR Mitigation Measures initiative policy paper](#).
- Resources are encouraged to always follow CAISO dispatch.

Advisory Shutdown Data

- Advisory shutdown (yellow) w/in each RTUC run horizon (row) moves from RTUC to RTUC until later binds (in orange)

	Payload name	RTPD binding interval	RTPD 1st advisory	RTPD 2nd advisory	RTPD 3rd advisory	RTPD 4th advisory
RTUC A	Payload 1	09:00-09:15	09:15-09:30	09:30-09:45	09:45-10:00	10:00-10:15
RTUC B	Payload 2	09:15-09:30	09:30-09:45	09:45-10:00	10:00-10:15	10:15-10:30
RTUC C	Payload 3	09:30-09:45	09:45-10:00	10:00-10:15	10:15-10:30	10:30-10:45
RTUC D	Payload 4	09:45-10:00	10:00-10:15	10:15-10:30	10:30-10:45	10:45-11:00
RTUC E	Payload 5	10:00-10:15	10:15-10:30	10:30-10:45	10:45-11:00	11:00-11:15

- Scenario above shows advisory shutdown was maintained and CAISO didn't change its instruction to have a shutdown. It is possible for CAISO to change its instruction depending on optimization results from each RTUC run.
- Each row or RTUC run above is at least 15-minutes earlier than the first column RTPD binding interval.

Advisory Shutdown Flag Definition

- For each resource in an RTUC run output, create this flag with a value of 1, if there is an advisory shutdown for the resource within the RTUC horizon. Otherwise, the flag value is zero.
- We always associate this flag to RTPD (energy) binding interval timeframe (first column). We build such flag for each RTUC run, until such time that there is no longer an advisory shutdown within RTUC run horizon (set flag to zero, or not create at all).
- Binding shutdowns do not count since not considered advisory.
- The time of advisory shutdown, just advisory, can be within the RTUC run horizon or beyond.

Settlement Example, shutdown state variable, MLC disqualification

- $P_{min} = 20$
- MLC = \$300 per shown 5-min intervals, HE9

Interval (5-min)	97	98	99	100	101	102	103	104	105	106	107	108
MLC	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300
Meter	30	30	30	30	30	30	30	30	30	30	30	30
TEE	25	25	25	25	25	25	25	25	25	25	25	25
UIE	5	5	5	5	5	5	5	5	5	5	5	5
Pos UIE	5	5	5	5	5	5	5	5	5	5	5	5
Advisory Shutdown Flag	1	1	1	1	1	1	1	1	1	0	0	0
UIE Cumulative (pos UIEs only)	5	10	15	20	25	30	35	40	45	0	0	0
TEE- UIE Cumulative	20	15	10	5	0	-5	-10	-15	-20	25	25	25
AdvisoryShutdownUIEFlag	1	1	1	1	1	1	1	1	1	0	0	0
Qualified MLC (\$)	0	0	0	0	0	0	0	0	0	300	300	300

The Shutdown state variable is closest to this UIE Cumulative (for positive UIEs only) in our BPM for Startup and Minimum Load Cost Precalc. Notice that it gets reset to 0 when advisory shutdown flag is 0.

Settlements configuration exists, though primary input data had no values

In the example above, the configuration formulas already exist. Now with the advisory shutdown instruction data flowing through, the input BD, BA_5M_RSRC_ADVISORY_SHUTDOWN_FLAG will be created correctly, so that the formulas can take effect.

Please refer to: [BPM PC Start-up and Minimum Load Cost](#) or any later versions of such BPM. Trace the variable BADispatchIntervalAdvisoryShutdownFlag in the formulas.

At a high level, see check for positive UIE. The accumulation (shutdown state variable) of such values when input advisory shutdown flag value is 1, or until accumulation resets to zero due to no advisory shutdown flag. See eventual qualification of IFM/RUC/RTM MLCs via penultimate variable, BASettlementIntervalAdvisoryShutdownUIEFlag.

Charge codes that could be impacted

CAISO BAA Charge Codes:

CC 6630 - IFM Bid Cost Recovery Settlement

CC 6636 - IFM Bid Cost Recovery Tier 1 Allocation

CC 6637 - IFM Bid Cost Recovery Tier 2 Allocation

CC 6806 - RUC Bid Cost Recovery Tier 1 Allocation

CC 6807 - RUC Bid Cost Recovery Tier 2 Allocation

CC 6620 - Bid Cost Recovery Settlement

CC 6678 - Real Time Bid Cost Recovery Allocation

EIM Charge Codes:

CC 66200 - Bid Cost Recovery EIM Settlement

CC 66780 - Real Time Bid Cost Recovery EIM Allocation

Additional implementation details

1. A CMRI Report will be added to indicate advisory shutdown instructions used to create Advisory Shutdown Flag BD.
 - Per resource, indicates instruction time and corresponding time interval where an advisory shutdown flag will be applied.
2. Production effective date is **NLT Aug 1, 2024**. (Firmer date to be provided as we get closer.)
3. Unstructured market simulation prior to effective date.
4. ISO will be monitoring for incorrect usage of MLC and will take appropriate action if that behavior is observed, including referrals to DMM
5. RUG meeting presentation of this topic will be on April 30, 2024.
6. Training will be provided by Customer Service prior to market simulation.

Spring 2026 Release

DAME/EDAM implementation documents

- Notice: <https://www.caiso.com/Documents/dame-edam-business-requirements-specifications-revisions-draft-parallel-operations-plan-dame-business-practice-summary.html>
- Day-Ahead Market Enhancements and Extended Day-Ahead Market: Business Requirements Specifications Revisions and Draft Parallel Operations Plan; Day-Ahead Market Enhancements Business Practice Summary posted

The California ISO has posted the Day-Ahead Market Enhancements (DAME) and Extended Day-Ahead Market (EDAM) Business Requirements Specifications (BRS) revisions and Draft Parallel Operations Plan and the DAME Business Practice Summary (BPS) to the [Release Planning webpage](#).

DAME BRS version 1.2

EDAM BRS version 1.2

Draft Parallel Operations Plan for DAME/EDAM

The objective of this document is to provide the information needed by market participants in order to engage in the parallel operation's activities for the DAME/EDAM release initiatives, enabling market participants to smoothly transition and utilize the new features.

The ISO conducts parallel operation activities on a regular basis as part of its bringing new capabilities to its markets. This provides market participants an opportunity to test their systems and procedures in advance of the market implementation. The parallel operation process facilitates an effective market operations "dress rehearsal" and helps expedite a smooth production launch.

DAME Business Practice Summary (BPS)

The Business Practice Summary is intended to introduce participants to upcoming requirements for the project prior to its implementation.

This Business Practice Summary covers the rules, design, and operational elements of the ISO Markets. The Business Practice Summary is intended for those entities that expect to participate in the ISO Markets, as well as those entities that expect to exchange Power with the ISO Balancing Authority Area.

EDAM BPS

This will be made available in June 2024

Day Ahead Market Enhancements

Project Information	Details/Date
<p>High Level Business Problem or Need</p>	<p>In recent years, Variable Energy Resource (VER) have gained significant traction in the energy grid, playing a crucial role in achieving renewable energy targets and reducing greenhouse gas emissions. However, their increasing presence has introduced a new challenge energy imbalances between the Day Ahead and Real Time markets.</p> <p>Another reason for the energy imbalance is the day-ahead market operates on hourly time increments, whereas real-time market schedules energy in 15 and 5-minute intervals. This discrepancy in granularity results imbalances since the rea-l-time market schedules fluctuate within the hour while day-ahead market schedules remain fixed for the entire hour.</p> <p>These imbalances necessitates out-of-market interventions by operators, such as forecast biasing and dispatches, to uphold grid reliability. However, this situation presents an opportunity to improve our market software, enabling us to achieve a more efficient and economical solution while addressing the variability and reliability concerns within the market.</p>
<p>High Level Project Scope</p>	<p>Enhance the California ISO's (CAISO's) day-ahead market by:</p> <ul style="list-style-type: none"> • Introducing an imbalance reserve (IRU/IRD) product to provide flexible capacity to account for real-time ramping needs • Enhancing the residual unit commitment process to also ensure there is sufficient downward dispatch capability (RCU/RCD) • Enhancing the day-ahead market to maximize benefits of greater West-wide diversity in the day-ahead optimization for Western Energy Imbalance Market participants
<p>BPM Changes</p>	<p>Settlements and Billing, Market Instruments & Market Operations</p>
<p>Tariff Changes</p>	<p>Sections 27, 31, 34, 39</p>
<p>Impacted Systems</p>	<p>MF, SIBR, DAM, OASIS, CMRI, Settlements & Internal Systems</p>

Day Ahead Market Enhancements

System	High Level Changes
MF	<ul style="list-style-type: none">• Define IRU, IRD, RCU, RCD eligibility for the resource ID in MF.
SIBR	<ul style="list-style-type: none">• IRU,IRD,RCU,RCD bid rules
DAM	<ul style="list-style-type: none">• Calculate IRU/IRD requirements• MPM: Market Power Mitigation for IRU/IRD• IFM: procure IRU/IRD• IRU/IRD deployment scenarios• IRU/IRD requirement distribution• IRU/IRD in NA-AC power flow• Include IRU/IRD in constraints• RCU/RCD procurement• RUC-MPM pass• Impact on RUC performance with additional MPM pass• LMP for EN, IRU/IRD, RCU/RCD
OASIS	<ul style="list-style-type: none">• IRU, IRC, RCU,RCD related public reports
CMRI	<ul style="list-style-type: none">• IRU, IRC, RCU,RCD related private reports
Settlements	<ul style="list-style-type: none">• IRU, IRC, RCU,RCD Settlements

Day Ahead Market Enhancements

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board briefing/approval	May 17, 2023	✓
External BRS	Publish External BRS v1.0	Jul 25, 2023	✓
	Publish External BRS v1.1	Dec 22, 2023	✓
	Publish External BRS v1.2	Apr 24 2024	✓
Settlements Config Guides	Post Draft Config Guides - First set of charge codes	Jan 16, 2024	✓
	Post Draft Config Guides - Second set of charge codes	Mar 26, 2024	✓
	Post Draft Config Guides - Third set of charge codes	Aug 26, 2024	
Tech Spec	Publish Technical Specifications - OASIS	Nov 09, 2023	✓
	Publish Technical Specifications – MF Publish MF GRDT v19.0 DRAFT	Nov 21, 2023	✓
	Publish Technical Specifications - SIBR	Nov 28, 2023	✓
	Publish Technical Specifications - CMRI	Dec 15, 2023	✓
Tariff	First Draft Tariff Posting	Jun 02, 2023	✓
	Second Draft Tariff Posting	Jul 11, 2023	✓
	FERC Filing	Aug 22, 2023	✓
	Receive FERC order – Acceptance in part	Dec 20, 2023	✓
	Draft Compliance Filing Posting	Feb 05, 2024	✓
	Compliance Filing	Feb 16, 2024	✓
BPMs	Post Draft BPM – Market Instruments	TBD	
	Post Draft BPM – Market Operations	TBD	
	Post Draft BPM – Settlements and Billing	TBD	
	Post Draft BPM – Definitions and Acronyms	TBD	
	Business Practice Summary (New)	Apr 25, 2024	✓
External Training	External User Training	May 08, 2025	
Market Sim	Fall 2025 Release Market Simulation Plan	Jan 24, 2024	✓
	Market Sim Scenarios	Aug 04, 2023	✓
	Market Sim Window	Jun 02, 2025 - Aug 22, 2025	
Production Deployment	Day Ahead Market Enhancements (Inactive)	Oct 01, 2025	
Production Activation	Day Ahead Market Enhancements (Financially Binding)	May 01, 2026	

Day Ahead Market Enhancements Business Practice Summary (BPS) - New

- The Business Practice Summary is intended to introduce participants to upcoming requirements for the project prior to its implementation.
- This Business Practice Summary covers the rules, design, and operational elements of the ISO Markets. The Business Practice Summary is intended for those entities that expect to participate in the ISO Markets, as well as those entities that expect to exchange Power with the ISO Balancing Authority Area.
- This BPS benefits readers who want answers to the following questions:
 - What are the roles of the ISO and the Scheduling Coordinators in the ISO Markets?
 - What are the concepts that an entity needs to understand to engage in the ISO Markets?
 - What does a Market Participant need to do to participate in the ISO Markets?
 - What are the market objectives, inputs, and outcomes?

Day Ahead Market Enhancements BRS Revisions 1/4

- BRS v1.2 published 4/25/24
- Updated for the following
 1. Clarified, corrected typos and cleaned up the document.
 2. Moved some requirements from DAME BRS to BRS of other projects.
 3. Moved some requirements from one system to another.
 4. Split BRQs.
 5. Added surplus zone functionality
 6. Added EDAM participation Flag definition in MF.
 7. Removed storing uncertainty.
 8. Removed D+2 calculation, broadcast and consume for IRR Thresholds, IRR Input Polynomials, IRR Uncertainty Histograms, IR Forecasts, IR Demand Curves and only keep IRR, IRS and RC Awards.
 9. Added D+3 calculation, broadcast and consume for IRUR/IRD.
 10. Applied insertion logic to non-VERs and replaced UEL with VER forecast with lower of energy bid range and RCU Certified Capacity.
 11. Removed extension/insertion of RCU bids to Forecast output for VERs.
 12. Deleted setting UEL to 0 if IRU and/or RCU eTagging validations fails for System Resources.
 13. Updated logic/formula for Settlements.
 14. Updated to replace RA showing with monthly Generic and Flex (across all categories) RA showing in the pro-rata settlements allocation.
 15. Added HASP Reversal application to CAISO BAA IFM Intertie Schedule.
 16. Deleted OASIS report that publishes aggregated BAA Forecasted Movement Data by resource category.
 17. Published REN (aka RUC schedules) to Forecasted Generation report (existing).
 18. Published nodal by SC DA Schedule Virtual Forecasted Movement via CMRI.
 19. Published Shift Factors (SF) for IRU/IRD via MPP.
 20. Updated data published to FERC.
 21. Updated market sim scenarios.

Day Ahead Market Enhancements BRS Revisions 2/4

- BRS v1.2 published 4/25/24

Section	Overview of Changes	Reason for Update	Updated	New	Removed
1 Introduction, 3 Details of Business Need/Problem, 5.2 Manage the Balancing Authority Requirements Calculator, 5.3 Calculate & Monitor Energy Costs & Indices, 5.4 Manage DAM – IFM, 5.5 Manage DAM – RUC, 5.9 Manage Market Reporting, 5.10 Manage FERC Reporting, 6.1 Appendix-A - Acronym Definition	1. Clarified, corrected typos and cleaned up the document.	Clean Up	§1.1, §3.1, BRQ-02300, BRQ-02310, BRQ-02320, BRQ-03070, BRQ-04030, BRQ-04080, BRQ-04090, BRQ-04134, BRQ-04331, BRQ-04331A, BRQ-05002, BRQ-05090, BRQ-05130, BRQ-05144, BRQ-10160, BRQ-10700, BRQ-11420, §6.1,		
5.4 Manage DAM – IFM, 5.6 Manage RTM	2. Moved some requirements from DAME BRS to BRS of other projects or vice versa.	Reorganization			BRQ-04334, BRQ-04337, BRQ-06075
5.1 Resource Management, 5.2 Manage the Balancing Authority Requirements Calculator, 5.8 Manage Market Billing and Settlements	3. Moved some requirements from one system to another.	Reorganization	BRQ-09160	BRQ-02005, BRQ-02011	BRQ-01180, BRQ-02010, BRQ-09530
5.4 Manage DAM – IFM, 5.9 Manage Market Reporting,	4. Split BRQs.	Reorganization	BRQ-04150, BRQ-10160, BRQ-10180, BRQ-10200, BRQ-10220, BRQ-10260	BRQ-04155, BRQ-10160A, BRQ-10160B, BRQ-10180A, BRQ-10180B, BRQ-10200A, BRQ-10200B, BRQ-10200C, BRQ-10220A, BRQ-10260A	
5.1 Resource Management, 5.4 Manage DAM – IFM, 5.7 Manage Market Quality System, 5.9 Manage Market Reporting, 5.10 Manage FERC Reporting, 5.12 Market/Business Simulation	5. Added surplus zone functionality	ISO SME Feedback	BRQ-04454, BRQ-07860, BRQ-10260, BRQ-11420, MSIM-15020,	BRQ-01160, BRQ-04134A, BRQ-04135, BRQ-04136, BRQ-04137	

Day Ahead Market Enhancements BRS Revisions 3/4

- BRS v1.2 published 4/25/24

Section`	Overview of Changes	Reason for Update	Updated	New	Removed
5.1 Resource Management	6. Added EDAM participation Flag definition in MF.	ISO SME Feedback		BRQ-01200	
5.2 Manage the Balancing Authority Requirements Calculator	7. Removed storing uncertainty.	ISO SME Feedback	BRQ-02040		
5.2 Manage the Balancing Authority Requirements Calculator, 5.4 Manage DAM – IFM, 5.9 Manage Market Reporting, 5.10 Manage FERC Reporting	8. Removed D+2 calculation, broadcast and consume for IRR Thresholds, IRR Input Polynomials, IRR Uncertainty Histograms, IR Forecasts, IR Demand Curves and only keep IRR, IRS and RC Awards.	ISO SME Feedback	BRQ-02060, BRQ-02070, BRQ-02090, BRQ-02100, BRQ-02110, BRQ-02120, BRQ-02130, BRQ-02140, BRQ-02150, BRQ-02310, BRQ-02320, BRQ-02340, BRQ-04140, BRQ-10280, BRQ-10300, BRQ-10320, BRQ-10340, BRQ-10360, BRQ-11420		
5.9 Manage Market Reporting, 5.10 Manage FERC Reporting	9. Added D+3 calculation, broadcast and consume for IRUR/IRDR.	ISO SME Feedback	BRQ-10260, BRQ-11420		
5.5 Manage DAM – RUC	10. Applied insertion logic to non-VERs and replaced UEL with VER forecast with lower of energy bid range and RCU Certified Capacity.	ISO SME Feedback	BRQ-05000		
5.5 Manage DAM – RUC	11. Removed extension/insertion of RCU bids to Forecast output for VERs.	ISO SME Feedback	BRQ-05005		
5.6 Manage RTM	12. Deleted setting UEL to 0 if IRU and/or RCU eTagging validations fails for System Resources.	ISO SME Feedback			BRQ-06065
5.8 Manage Market Billing and Settlements	13. Updated logic/formula for Settlements.	ISO SME Feedback	BRQ-09160, BRQ-09180, BRQ-09540		
5.8 Manage Market Billing and Settlements	14. Updated to replace RA showing with monthly Generic and Flex (across all categories) RA showing in the pro-rata settlements allocation.	ISO SME Feedback	BRQ-09380		
5.8 Manage Market Billing and Settlements	15. Added HASP Reversal application to CAISO BAA IFM Intertie Schedule.	ISO SME Feedback		BRQ-09610	
5.9 Manage Market Reporting	16. Deleted OASIS report that publishes aggregated BAA Forecasted Movement Data by resource category.	ISO SME Feedback			BRQ-10380

Day Ahead Market Enhancements BRS Revisions 4/4

- BRS v1.2 published 4/25/24

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.9 Manage Market Reporting	17. Published REN (aka RUC schedules) to Forecasted Generation report (existing).	ISO SME Feedback		BRQ-10730	
5.9 Manage Market Reporting	18. Published nodal by SC DA Schedule Virtual Forecasted Movement via CMRI.	ISO SME Feedback		BRQ-10810	
5.9 Manage Market Reporting	19. Published Shift Factors (SF) for IRU/IRD via MPP.	ISO SME Feedback		BRQ-10880	
5.10 Manage FERC Reporting	20. Updated data published to FERC.	ISO SME Feedback	BRQ-11420		
5.12 Market/Business Simulation	21. Updated market sim scenarios.	ISO SME Feedback	MSIM-15020		

Extended Day Ahead Market (EDAM) Implementation

Project Information	Details/Date
High Level Business Problem or Need	<p>The purpose of this initiative is to create a comprehensive extended day-ahead market that extends over multiple balancing authority areas (BAAs) participating in the Western Energy Imbalance Market (WEIM). EDAM is a voluntary day-ahead electricity market with the potential to deliver significant economic, environmental, and reliability benefits for participants across the West. EDAM will more efficiently and effectively integrate renewable resources and address the significant operational challenges presented by a rapidly changing resource mix, emerging technologies, and the impacts of climate change. EDAM will enable procurement of robust supply and flexible capacity that will position EDAM participants to effectively address changes in conditions from day-ahead to real-time, improving their response to potential reliability challenges. EDAM builds upon the proven ability of the WEIM to increase regional coordination, support state policy goals, and cost effectively meet demand.</p>
High Level Project Scope	<p>The EDAM design leverages existing features of the ISO day-ahead market that are common in other day-ahead markets across the country. The design also considers enhancements proposed in contemporaneous stakeholder initiatives that will harness flexibility across the larger footprint by incorporating an imbalance reserve product that will enhance price formation. EDAM introduces new products, imbalance reserve and reliability capacity, as well as new penalties, and a Resource Sufficiency Evaluation (RSE) surcharge.</p>
BPM Changes	<ul style="list-style-type: none"> Definitions and Acronyms Energy Imbalance Market (EIM) Market Instruments Market Operations Settlements and Billing EDAM
Impacted Systems	<p>MF, ALFS, ALFS-SOA, SIBR, RTSI, RTBS, BSAP, DAM (IFM and RUC), DA-RSE (new), RTM (RTPD and RTD), STUC, MPM, ITS, BARC, GHG Pass (new), Settlements, CMRI, OASIS, ADS, WebOMS, Internal ISO Systems</p>

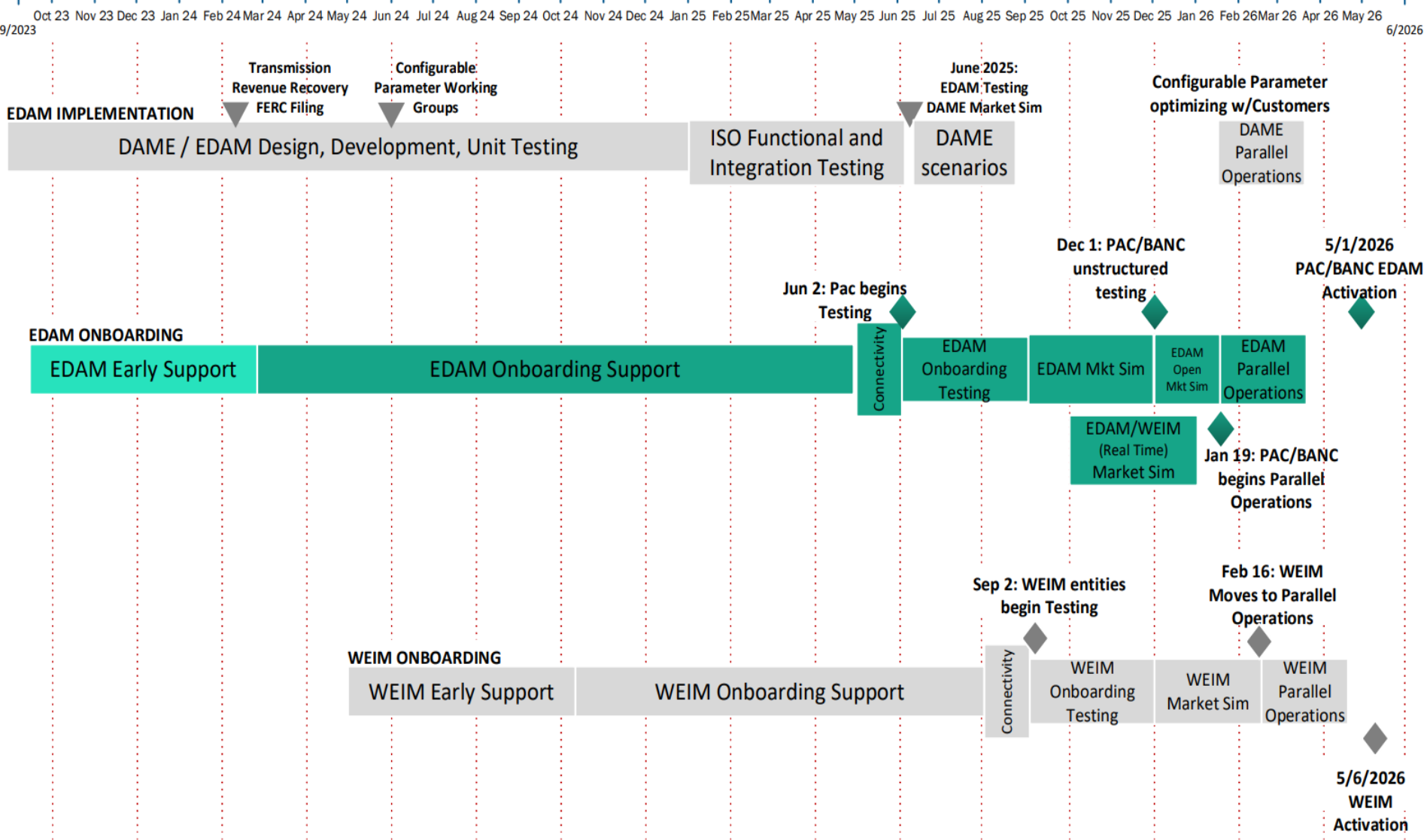
Extended Day Ahead Market (EDAM) Implementation

Milestone Type	Milestone Name	Dates	Status
External BRS	Publish External BRS v1.0	Aug 02, 2023	✓
	Publish External BRS v1.1	Dec 22, 2023	✓
	Publish External BRS v1.2	Apr 25, 2024	✓
Tariff	Draft Tariff Language	Mar 30, 2023	✓
	Revised Draft Tariff Language	Jun 08, 2023	✓
	Updated Revised Draft Tariff Language	Jul 25, 2023	✓
	FERC Filing	Aug 22, 2023	✓
	Receive FERC order – Acceptance in part	Dec 20, 2023	✓
	Requested effective date for tariff changes for EDAM agreements and onboarding provisions	Dec 21, 2023	✓
Settlements Config Guides	Draft Compliance Filing Posting	Feb 05, 2024	✓
	Compliance Filing	Feb 16, 2024	✓
	Filing for EDAM access charge	Apr 12, 2024	✓
	Post Draft Config Guides - First set of charge codes	Jan 16, 2024	✓
	Post Draft Config Guides - Second set of charge codes	Mar 26, 2024	✓
Tech Spec	Post Draft Config Guides - Third set of charge codes	Aug 26, 2024	✓
	Publish Technical Specifications – RTSI	Dec 5, 2023	✓
	Publish Technical Specifications – MF	Jan 4, 2024	✓
	Publish Technical Specifications – SIBR	Mar 21, 2024	✓
	Publish Technical Specifications – OASIS	Apr 12, 2024	✓
	Publish Technical Specifications – CMRI	Apr 12, 2024	✓
	Publish Technical Specifications – PLC	Q2 2024	
Publish Technical Specifications – ALFS	NA		
BPMs	Publish Technical Specifications – OMS	NA	
	Post Draft BPM – Energy Imbalance Market (EIM)	TBD	
	Post Draft BPM – Market Instruments		
	Post Draft BPM – Market Operations		
	Post Draft BPM – Settlements and Billing		
	Post Draft BPM – EDAM		
Post Draft BPM – Definitions and Acronyms			
External Training	Training	TBD	
Market Sim	Fall 2025 Release Market Simulation Plan	Jan 24, 2024	✓
	Market Sim Scenarios	Jan 29, 2024	✓
	Market Sim Scenarios v1.1	Feb 15, 2024	✓
	EDAM Onboarding Market Sim	Sep 01, 2025 – Jan 16, 2026	
Parallel Operations	Draft Parallel Operations Plan	Apr 15, 2024	✓
Production	EDAM Production Deployment - Inactive	Oct 01, 2025	
	EDAM Onboarding (Financially Binding) & Activation (Pacifcorp & BANC)	May 01, 2026	

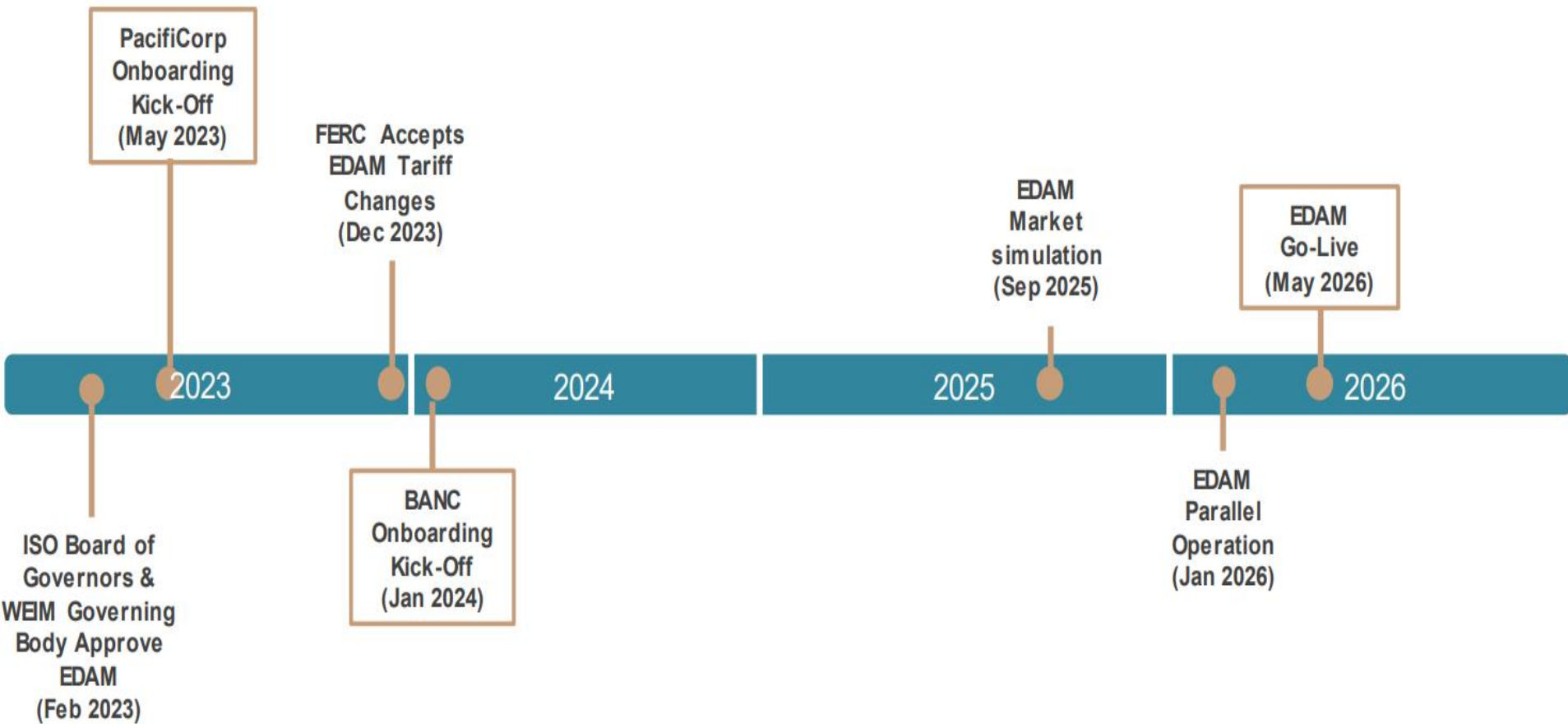
EDAM & DAME Activation May 1, 2026

1/24/2023 EDAM Onboarding Timeline (w/implementation and WEIM) - *proposed*

9/2/2023 - 6/1/2026



Key EDAM Onboarding Milestones to Date



Extended Day Ahead Market BRS Revisions

BRS v1.2 published 04/25/2024

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.1: Model & Contract Implementation & FNM (Master File)	<ul style="list-style-type: none"> Define association between DGAP/SDGAP and TIE, define association between TIE and ITC Remove TSR Commodity Clarify that contractual MW obligations are defined on an hourly basis Allow EDAM entities to submit use-limited data 	<ul style="list-style-type: none"> ISO SME Feedback Clarification Policy/Tariff Alignment 	BRQ-02089a, BRQ-02142, BRQ-02190	BRQ-02087, BRQ-02260	BRQ-02120
5.2: Forecasting (ALFS)	<ul style="list-style-type: none"> Establish Demand Response Performance Factor Removal of 5% threshold of LF for DR inclusion Account for DR LF Adjustment in DA Demand Forecast process Removal of calculation of Hourly DR LF Adjustment for RSE 	<ul style="list-style-type: none"> ISO SME Feedback 	BRQ-04052, BRQ-04058, BRQ-04060	BRQ-04041	BRQ-04054, BRQ-04059
5.3: BAA Requirement Calculation (Internal ISO System)	Calculate FRUR/FRDE parameter estimates every hour of TD for EDAM up/down pools and AET Y/N sub-pools	<ul style="list-style-type: none"> ISO SME Feedback Policy/Tariff Alignment 		BRQ-05075	
5.4: Default Energy Bids (Internal ISO System)	Obtain and store <i>on-peak</i> bilateral trading Mid-C, PV Hub prices	<ul style="list-style-type: none"> Clarification 	BRQ-08060		
5.5: Bid and TSR Submission (SIBR)	<ul style="list-style-type: none"> Removal of TSR commodity Inter-SC Trades shall not apply to EDAM Access MF defined DGAP/SDGAP-TIE, TIE-ITC mapping Broadcast all CRN MW entitlements Allow EDAM entity to submit TSR with RSE eligible AS self-provision 	<ul style="list-style-type: none"> ISO SME Feedback Policy/Tariff Alignment 	BRQ-11010, BRQ-11014, BRQ-11054, BRQ-11150, BRQ-11190	BRQ-11022, BRQ-11106, BRQ-11150a	

Extended Day Ahead Market BRS Revisions

BRS v1.2 published 04/25/2024

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.6: DAM Resource Sufficiency Evaluation (DA-RSE)	<ul style="list-style-type: none"> Removal of TSR commodity Removal of DR inclusion flag Use same LF for DA-RSE and DAM Removal of display and accounting for DR LF Adjustments in DAM Clarify that RSE runs approximately every 30 minutes Include RSE eligible TSR AS self-provision and TSR transfer limits in DA-RSE optimization Clarify constraints evaluated by DA-RSE Clarify reporting on RSE required movement between EDAM BAAs 	<ul style="list-style-type: none"> ISO SME Feedback Policy/Tariff Alignment Clarification 	BRQ-12008, BRQ-12016D, BRQ-12040, BRQ-12050, BRQ-12180, BRQ-12030	BRQ-12016	BRQ-12016A, BRQ-12016B
5.7: Day Ahead Market (MPM, IFM)	<ul style="list-style-type: none"> Clarify that ETSR status remains locked until Operator changes status Removal of TSR commodity Clarify enforcement of Net Export Transfer Constraint Clarify details regarding not allowing simultaneous relaxation of the PBC and Net Export Transfer above RSE eligible energy exported transfers 	<ul style="list-style-type: none"> ISO SME Feedback Policy/Tariff Alignment Clarification 	BRQ-13052, BRQ-13054, BRQ-13060a, BRQ-13080, BRQ-13100, BRQ-13120		BRQ-13130
5.8: Residual Unit Commitment (RUC, DAM)	<ul style="list-style-type: none"> Clarifications regarding extending RUC to EDAM Clarify details regarding not allowing simultaneous relaxation of the PBC and Net Reliability Capacity Export/Import Transfer Removal of application of DR adjustment 	<ul style="list-style-type: none"> ISO SME Feedback Policy/Tariff Alignment Clarification 	BRQ-14010, BRQ-14020, BRQ-14030, BRQ-14042		BRQ-14040
5.9: Tagging DAM Schedules (RTSI, ITS, SIBR)	No changes to BRQs in this section				

Extended Day Ahead Market BRS Revisions

- BRS v1.2 published 04/25/2024

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.10: Real Time Market (RTM-RSE, RTM)	<ul style="list-style-type: none"> • Clarify WEIM RSE Flex test for EDAM pools with FRU/FRD requirement details 	<ul style="list-style-type: none"> • ISO SME Feedback 	BRQ-16015, BRQ-16030, BRQ-16062		
5.11: GHG Model IN DAM and RTM (GHG Pass, DAM, RTM)	<ul style="list-style-type: none"> • Removal of GHG losses • Clarify GHG transfer definition • Clarify WEIM GHG model changes • Update details regarding the Gross GHG attribution constraint in WEIM • Calculate/broadcast RT GHG marginal price 	<ul style="list-style-type: none"> • ISO SME Feedback • Clarification 	BRQ-17030, BRQ-17070a, BRQ-17200, BRQ-17210	BRQ-17230	BRQ-17022
5.12: Market Quality, Validation, and Price Corrections (Internal ISO Systems)	No changes to BRQs in this section				
5.13: Billing and Settlements (MRI-S, Settlements)	<ul style="list-style-type: none"> • Consume all DA CRN data and entitlements • Consume RSE upward/downward deficiency from DA-RSE (Energy, IRU/IRD) • Define OATT 1 and OATT 2 contract types for Settlements • Clarify Uncertainty Up and Down allocation processes 	<ul style="list-style-type: none"> • ISO SME Feedback • Policy/Tariff Alignment • Clarification 	BRQ-19024, BRQ-19026, BRQ-19030, BRQ-19400, BRQ-19420	BRQ-19025, BRQ-19063a	

Extended Day Ahead Market BRS Revisions

- BRS v1.2 published 04/25/2024

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.14: Market Reporting (CMRI, OASIS, Today's Outlook)	<ul style="list-style-type: none"> • Clarifications regarding elements of new EDAM transmission CMRI reports • Combine advisory and final RSE results into one CMRI report • Update list of reports extended to EDAM entity BAAs (CMRI) • Removal of DA-RSE aggregate bid information reporting from CMRI (will be shown in SIBR) • Clarify elements of EDAM/WEIM BAA level MPM results reporting in OASIS • Update RSE BAA level report details on OASIS • Extend OASIS Flex Ramp Requirements reporting to EDAM 	<ul style="list-style-type: none"> • ISO SME Feedback • Clarification 	BRQ-20010, BRQ-20011, BRQ-20013, BRQ-20050, BRQ-20051, BRQ-20054, BRQ-20068, BRQ-20070, BFQ-20080, BRQ-20082	BRQ-20145	BRQ-20052, BRQ-20053, BRQ-20062
5.15: FERC Reporting (Internal ISO System)	No changes to BRQs in this section				
5.16: Outages (WebOMS)	No changes to BRQs in this section				
5.17: Market Simulation	No changes to BRQs in this section				

Spring 2026 – EDAM ISO BAA Participation Rules Track A

➤ Project Information	➤ Details/Date
➤ High Level Project Scope	➤ Through this initiative, the ISO will address ISO Balancing Authority Area (BAA)-specific elements required for Extended Day-Ahead Market (EDAM) participation, including how to allocate ISO BAA EDAM resource sufficiency evaluation (RSE) failure surcharges and revenues, and options for curing ISO BAA EDAM advisory RSE shortfalls.
➤ Tariff Changes	<ul style="list-style-type: none"> ➤ First, the CAISO proposes tariff revisions to allow for the settlement of all Transfer System Resources in the CAISO BA. ➤ Second, the CAISO proposes tariff revisions to allow for the settlement of EDAM Transfer revenue allocated to the CAISO BA, inclusive of EDAM Transfer revenue and EIM Transfer revenue. ➤ Third, the CAISO proposes tariff revisions to allow the CAISO to distribute all CAISO BA revenues and surcharges for the EDAM RSE Failure Surcharge. ➤ Fourth, the CAISO proposes tariff revisions to set forth the calculations for the EDAM Historical Revenue Recovery amounts for transmission owners in the CAISO BA. ➤ Fifth, the CAISO proposes tariff revisions to allow the CAISO BA to enable the Net EDAM Export Transfer Constraint, a voluntary, and optional, mechanism that each EDAM Balancing Authority may enable to preserve sufficient supply to meet its projected needs, while managing reliability based on conditions and circumstances anticipated within its balancing area.

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board approval	Sep 21, 2023	✓
Tariff	Draft Tariff Language	Aug 25, 2023	✓
	Revised Draft Tariff Language	Oct 11, 2023	✓
	FERC Filing ER24-379	Nov 13, 2023	✓
	FERC Response Requested By	Feb 15, 2024	
Production	Effective Date	Spring 2026	

Spring 2026 – WEIM BHE Montana

Project Info	Details/Date
Application Software Changes	System modifications as needed to accommodate any unique Berkshire Hathaway Energy Montana 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 Berkshire Hathaway Energy Montana.
Market Simulation	December 2025 thru January 2026
Parallel Operations	February 2026 thru March 2026

Milestone Type	Milestone Name	Dates
Market Sim	Market Sim Window	Dec 2025 thru Jan 2026
Parallel Operations	Parallel Operations	Feb 2026 thru Mar 2026
Tariff	File Implementation Agreement File Readiness Certification	Mar 27, 2024 Mar 2026
Production	Activation	May 2026

Future Releases



California ISO

Settlement Upgrade Project

April 16, 2024

ISO PUBLIC

Settlement Upgrade Project – Overview

- The current settlement system, implemented in 2008 as part of the Market Redesign and Technology Upgrade (MRTU) implementation, is nearing its end of life. The CAISO is upgrading existing settlement applications to approved architectural and information security standards.
- Benefits for our customers include:
 - Improved business efficiency
 - Better gathering and analysis for data and front-end improvements for customers interacting with CAISO Settlement Systems
 - Increased transparency for some calculations
 - Accommodating data processing increases resulting from new market products and an increase in market participants
 - Ability to perform complex settlement calculations

Settlement Upgrade Project – Targeted Goals

- The ISO will work closely with our market participants to ensure seamless transition from e-terra 2.5 to 3.0 configuration output file.
- The ISO will leverage the Settlement User Group and Technical User Group for participants to ask more technical questions.
- The ISO will provide an environment with production-like data allowing customers to validate changes.
- The system will provide settlement outputs in various file formats, allowing all customers to access and use the data in day-to-day operations.
- The ISO will strive to make formulas and inputs transparent to enable market participants to monitor and/or validate settlement results.
- The ISO will provide market participants with an extended market simulation and timely support to the market participants and their vendors during the testing phase.

Settlement Upgrade Project – Targeted Goals (continued)

- From a vendor perspective:
- ISO will provide third party vendors with support during the transition period.
- ISO will provide an extended market simulation and/or parallel statements and invoices during the transition period so vendors can resolve defects on their systems.
- ISO will provide open communications to resolve settlement differences through a customer forum.

Settlement Upgrade Project – Targeted Goals (continued)

- From a vendor perspective:
- ISO will provide third party vendors with support during the transition period.
- ISO will provide an extended market simulation and/or parallel statements and invoices during the transition period so vendors can resolve defects on their systems.
- ISO will provide open communications to resolve settlement differences through a customer forum.

Settlement Upgrade Project – Status

- The ISO is reviewing the overall schedule for implementation. The current schedule is colliding with EDAM and DAME implementation.
- In order to allow customers to have the time to focus on the Settlement Upgrade Project, as well as EDAM and DAME, a new schedule will be developed.
- ISO will provide quarterly updates for the implementation for now and will ultimately increase the frequency of updates and the depth of information provided accordingly as we proceed
- The updates will be provided in the Release User Group and Settlement User Group
- To help ensure alignment of our communications between these two (2) forums, this same update was provided in the next Settlement User Group call on April 24, 2024
- The next Settlement Upgrade Project update will be in July 2024
- For comments or questions, please submit CIDI cases

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 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 Performance and Planning Forum
 - Quarterly review of market performance topics
 - 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
	<p>WebCONF: Market Simulation 2:00pm - 3:00pm</p>	<p>Training: Get to Know the ISO - Day 1 9:00am - 4:00pm</p> <p>WebCONF: Imbalance Conformance Enhancements 10:00am - 12:00pm</p> <p>WebCONF: Technical User Group 10:00am - 11:00am</p>	<p>Deadline: Comments - Interconnection Process Enhancements 2018 - Issue Paper and Meeting Discussion</p> <p>Training: Get to Know the ISO - Day 2 9:00am - 4:00pm</p> <p>Meeting: Flexible Resource Adequacy Criteria Must Offer Obligation Phase 2 - Revised Draft Flexible Capacity Framework 10:00am - 4:00pm</p> <p>WebCONF: Market Settlement User Group 10:00am - 11:00am</p>	<p>Meeting: Audit Committee Teleconference (Executive) 8:30am - 9:30am</p> <p>Training: Settlements 101 9:00am - 4:00pm</p> <p>Meeting: 2017-2018 Transmission Planning Process 10:00am - 4:00pm</p> <p>WebCONF: Market Simulation 2:00pm - 3:00pm</p>	<p>Training: Settlements 201 9:00am - 4:00pm</p>	
	<p>WebCONF: Participating Transmission Owner Per Unit Cost Guides 10:00am - 12:00pm</p> <p>WebCONF: Market Simulation 2:00pm - 3:00pm</p>	<p>Meeting: Congestion Revenue Rights Auction Efficiency 10:00am - 4:00pm</p> <p>WebCONF: Release User Group 10:00am - 11:00am</p> <p>Call: Energy Imbalance Market Governing Body Teleconference (Executive) 11:30am - 12:30pm</p>	<p>Deadline: Submissions - April 2018 Monthly Resource Adequacy and Supply Plans</p> <p>Call: Congestion Revenue Rights 11:00am - 11:30am</p> <p>WebCONF: Outage Management System Customer Partnership Group 2:00pm - 3:00pm</p>	<p>Deadline: Comments - Review Transmission Access Charge Structure Straw Proposal and Meeting Discussion</p> <p>Call: Board of Governors Teleconference (General) 9:15am - 9:00am</p> <p>Call: Board of Governors Teleconference (Executive) 9:00am - 10:00am</p> <p>Call: Market Update 10:15am - 11:00am</p> <p>WebCONF: Market Simulation</p>		

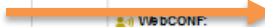
Market Sim



Market Sim



Release Users Group (RUG)



RUG Calendar 2024

January						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February						
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

March						
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

April						
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	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

May						
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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June						
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						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July						
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	1	2	3	4	5	6
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14	15	16	17	18	19	20
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28	29	30	31			

August						
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31


September						
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15	16	17	18	19	20	21
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29	30					

October						
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6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November						
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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

December						
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

 CAISO Holiday

 RUG Forum

MARKET PERFORMANCE AND PLANNING FORUM MEETING ON 6/13/24

Market quality and performance

- Review key market outcomes, along with an overview of topics covered in the ISO Market update conference calls.
- Discuss market performance issues being monitored by the ISO.

Policy/Regulatory discussion

- Discuss major initiatives, anticipated Board reviews and drivers affecting timing and implementation.

Release planning, release timelines and implementation topics

- Dialogue on high level release planning topics from recent Release User Group calls.
- Note: Weekly user group calls are the primary forum for detailed dialogue on implementation issues.

Other topics

- Overview of major topics covered in other relevant weekly stakeholder conference calls.

Contact

- tvo@caiso.com
- release@caiso.com
- CIDI
 - Functional Environment (Area)
 - “Release”
 - “Market Simulation”