



California ISO Release User Group

February 6, 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
LPT Export E-tagging Training	February 14, 2024 11:00 am – 12:30 pm
RSEE Phase 2, Track 2 Refresher Training (includes LPT Export E-tagging)	TBD, Week of February 19
Transmission Service and Market Scheduling Priorities Phase 2 (TS&MSP Phase 2)	February 27, 2024 1:00 pm – 3:00 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>



Release Plan Summary

Summer 2024 Release

- Transmission Service & Market Scheduling Priorities Phase 2
- Transmission Exchange Agreement
- ASSOC Retroactive Enhancement

Independent 2024 Releases

- WEIM Resource Sufficiency Evaluation Enhancements Phase 2 Track 2 – Post HASP Curtailments: Activation April 2024
- URL & IP Changes (& AUP Changes) – Application Delivery Resiliency: API ✓11/15/23 & 02/19/24; UI 02/06/24
- Transmission Register System Upgrade: Production 02/27/24
- Hybrid Resources Phase 2C – RIMS Q4 2024
- Congestion Revenue Rights System Upgrade Q3-Q4 2024
- CAISO Website Replacement Q3 2024
- FERC 881 – Managing Transmission Line Ratings Track 1 – Real-Time Reliability Applications Q2 2024
- FERC 881 – Managing Transmission Line Ratings Track 2 – Operational/EMS Model Data & Applications Q4 2024

Spring 2026 Release

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

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

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	Feb 26, 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	✓
	Track 2 DTL	Jul 14, 2023	✓
	Track 2 Revised DTL	Oct 05, 2023	✓
	Track 2 Final DTL	Dec 19, 2023	✓
	File Track 2 (study and expansion process for establishing wheel through priority on a long-term basis)	Q1 2024	
BPMs	Draft BPM changes – Market Instruments		
	Draft BPM changes – Market Operations (PRR1548) Comments thru 2/13/24, meeting 2/20/24	Jan 16, 2024	✓
	Draft BPM changes – Market Operations (Automation)		
	Draft BPM changes – Reliability Requirements		
	Draft BPM changes – Settlements and Billing		
	Draft BPM changes – Transmission Planning Process		
Production Activation	Draft BPM changes – Generator Interconnection and Deliverability Allocation Procedures		
	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 CIDI)	Jan 18 – Jan 31, 2024	✓
	- Results communicated	Feb 5, 2024	✓
	New automation functionality available to support reservation of Monthly and Daily ATC in June 2024 and beyond	Apr 17, 2024	
	Transmission Service & Market Scheduling Priorities Phase 2 – Activate daily and long-term increment calculations	Jun 01, 2024	
	2024 Monthly Wheeling Through Priority Request Due Dates		

Summer 2024 – Transmission Service & Market Scheduling Priorities

Phase 2

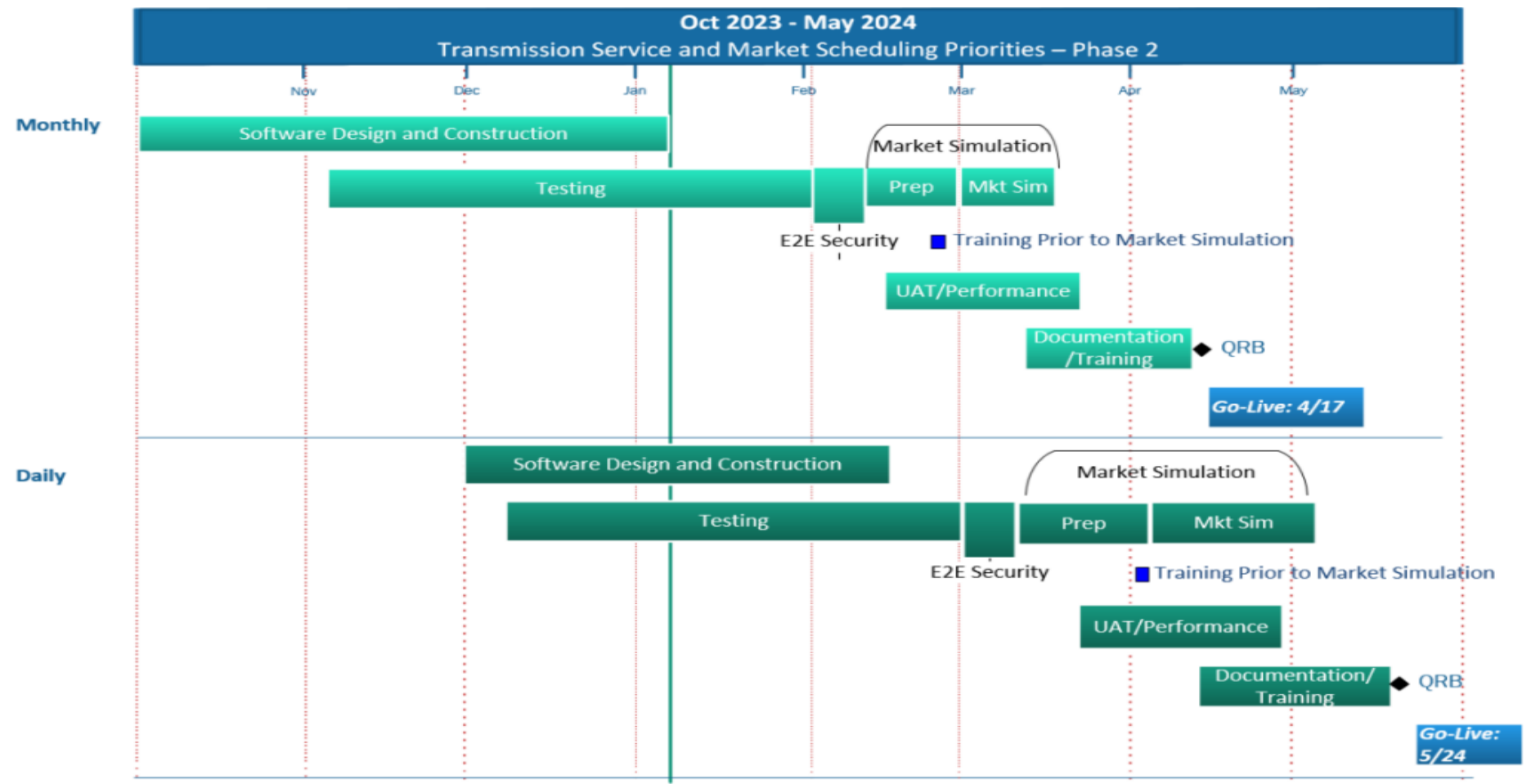
Implementation Key Milestones

Item	Date
Monthly:	
Market Simulation prep	
Training prior to Market Sim	Week of February 26 th
Market Simulation	March 1 st to March 21 st
Go-Live	April 17 th
Daily:	
Market Simulation prep	
Training prior to Market Sim	Week of April 1 st
Market Simulation	April 9 th to May 7 th
Go-Live	May 24 th (earliest date)

**Market Simulation Settlements Trade Dates Tuesdays & Thursdays thru Market Simulation Windows*

Summer 2024 – Transmission Service & Market Scheduling Priorities Phase 2

Automated Functionality Implementation Timeline



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 PACI#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	Tech Doc	Feb 12, 2024	
Config Guides	1st Draft Config File & Release Component Summary	Feb 26, 2024	
Tech Spec	Create ISO Interface Specifications – CMRI	Feb 2024	
Tariff	NA	NA	
BPMs	Draft BPM changes – Settlements & Billing	Yes	
Market Simulation	Market Simulation – WAPA	Apr 04 – May 16, 2024	
Production Activation	Transmission Exchange Agreement Renegotiation	Jul 15, 2024	

Summer 2024 Settlements Release – ASSOC Flag Enhanced Logic

- **Presented in [SUG Jan 17, 2024 & Jan 31, 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 PRR 1547. Comment period ends 2/13/24 11:59 PM & BPM meeting 2/20/24**

Independent 2024 Releases

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

Project Information	Details
High Level Project Scope	<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. DAECON (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)
BPM Changes	WEIM, Market Instruments, Market Operations
Tariff Changes	Yes
Impacted Systems	MF, Market, ITS, ADS

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 Feb 2023)	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	✓
Training	Training	Sep 13, 2023	✓
	Low Priority Transaction (LPT) Export E-tagging Training	Feb 14, 2024	
	Refresher Training (includes LPT Export E-tagging)	TBD, Week of February 19	
Market Sim Scenarios	Market Sim Scenarios	Jul 28, 2023	✓
		Aug 23, 2023	✓
		Sep 08, 2023	✓
Market Sim	Market Sim Window	Sep 25, 2023 – Oct 13, 2023	✓
	Market Sim – Pro Rata Curtailment	Feb 26, 2024 – Mar 15, 2024	
Production Activation	Resource Sufficiency Evaluation Enhancements Phase 2 Track 2	Apr 15, 2024	

RSEE2T2: Low Priority Transaction (LPT) Export E-tagging

- RSEE2 Track 1 implemented Exports e-Tagging Submission Requirements
- RSEE2 Track 2 will introduce Exports e-Tagging Validation
 - ***This includes validation against market data***
- Existing RSEE2 BRS available [here](#)

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
RSEE2-BRQ-03080 (Track-2) – Item2A	<p>Exports e-Tagging Validation</p> <ul style="list-style-type: none"> • If the Misc Info CAISO Priority Type e-Tag field is left blank for an export eTag and Misc Info CAISO Contract field exists, System shall deny that e-Tag. • Else If the Misc Info CAISO Priority Type e-Tag field is left blank for an export eTag (and Misc Info CAISO Contract field does not exist), System shall default it to lowest curtailment priority order (which is RTECON) and set Market Path Product to “G-FP”. • System shall have the capability to deny the G-FP e-tagging based on the following validation rule regarding CAISO Priority Types: <ul style="list-style-type: none"> ○ If DALPT (including rolled-over DAECON), RTLPT, RTECON exports are not e-tagged as “G-FP”, it shall be denied. ○ If DAPT, RTPT, ETC, TOR exports are e-tagged as “G-FP”, it shall be denied. ○ <i>If the sum of eTag MW for an export resource ID and a specific CAISO priority type and CAISO Contract (if applicable) does not match the corresponding market data, those submitted eTags shall be adjusted to match corresponding market data, similar to existing eTag adjustment rules for resource IDs.</i> If there are multiple eTags for same resource ID, CAISO priority type and CAISO Contract (as applicable), they shall be adjusted pro rata to their eTag MW values. Note: This process is similar to existing process adjusting the eTag per a resource ID. 	<p>Core</p> <p>BPM: Market Operations</p> <p>Tariff: §34.12.4</p>	<ul style="list-style-type: none"> • ITS

RSEE2T2: Low Priority Transaction (LPT) Export E-tagging

- RSEE2T2 Exports e-Tagging Validation against DA & RT market data (Market Priority) requires market closure to produce market results to validate the Market Priority from the market results against the CAISO_PRIORITY_TYPE in the e-Tags
- With RSEE2T2, on creation of the e-tag, there will be validation of direction (Outbound), Product Type (G-FP), and ensuring Priority Type has an appropriate scheduling priority reflected (checking against market results). E-tag will be rejected and not created if it fails validation (for example, if a tag is submitted prior to DA Publish, it will be rejected).
- **RSEE2T2 Activation Impact: To the extent customers submit pre-DA or pre-RT export G-FP e-tags before market clears, those e-tags will now be denied**
- **Training for RSEE2T2: Low Priority Transaction (LPT) Export E-tagging on Feb 14, 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)

- Areas
 - Access Policy Manager - Application Authentication
 - Local Traffic Manager - Load Balancing
 - Application Security Manager - Web Application Firewall
- User Impacts & Actions
 - New IP ranges requiring firewall changes
 - Please open the entire 45.42.16.0/21 network on ports 80 & 443 for our new IP space
 - New URLs for UIs and APIs requiring cutover
 - No application functionality changes expected
 - No provisioning changes expected

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

- **UI:**
 - All new URLs (except TR) available now
 - Old URLs to be decommissioned 2/6/24
- **API:**
 - All new URLs available now
 - Old URLs to be cutover TBD (was 2/19/24 tentatively)

System	UI - New	UI - Old	API - New	API - Old
BAAOP	https://baaop.caiso.com		https://ws.prod.caiso.com/sst/baaop	https://ws.caiso.com/sst/baaop
BSAP	https://bsap.caiso.com		https://ws.prod.caiso.com/sst/bsap	https://ws.caiso.com/sst/bsap
CIRA	https://cira.caiso.com	NA - Cutover	https://ws.prod.caiso.com/sst/cira	https://ws.caiso.com/sst/cira
CMRI	https://cmri.caiso.com		https://ws.prod.caiso.com/sst/cmri	https://ws.caiso.com/sst/cmri
DRRS	https://drrs.caiso.com	NA - Cutover	https://ws.prod.caiso.com/sst/drrs	https://ws.caiso.com/sst/drrs
EIDE	NA	NA	https://ws.prod.caiso.com/sst/eide	https://ws.caiso.com/sst/eide
ALFS (& FDR)	NA	NA	https://ws.prod.caiso.com/sst/runtime.asvc	https://ws.caiso.com/sst/runtime.asvc
MF	https://mf.caiso.com		https://ws.prod.caiso.com/sst/runtime.asvc	https://ws.caiso.com/sst/runtime.asvc
PISOA	NA	NA	https://ws.prod.caiso.com/sst/runtime.asvc	https://ws.caiso.com/sst/runtime.asvc
RCBSAP	https://rcbsap.caiso.com		https://ws.prod.caiso.com/sst/rcbsap	https://ws.caiso.com/sst/rcbsap
RCSERVICES (RCEIDE)	NA	NA	https://ws.prod.caiso.com/sst/rcservices	https://ws.caiso.com/sst/rcservices
SIBR	https://sibr.caiso.com		https://ws.prod.caiso.com/sst/sibr	https://ws.caiso.com/sst/sibr
STLMT	https://stlmt.caiso.com	NA - Cutover	https://ws.prod.caiso.com/sst/stlmt	https://ws.caiso.com/sst/stlmt
OMS	https://weboms.caiso.com	NA - Cutover	https://ws.prod.caiso.com/sst/weboms	https://ws.caiso.com/sst/weboms
ECIC	NA	NA	https://ws.prod.caiso.com/sst/ecic	https://ws.caiso.com/sst/ecic
CRR	https://crr.caiso.com		NA	NA
PLC	https://plc.caiso.com/		NA	NA
TR	https://tr.caiso.com	https://portal.caiso.com/tr	NA	NA
ADS	https://ads.caiso.com	NA - Cutover	https://adsws.prod.caiso.com/	NA - Cutover
OASIS	http://oasis.caiso.com	NA - Cutover	http://oasis.caiso.com	NA - Cutover

Key
NA - Interface doesn't exist or already cutover
Available for Transition - Users should be using now, cut over to these now
Will be cutover - Users should move off these right away
To be made available at a future date
Cutover complete

2024 – Transmission Register System Upgrade

Project Information	Details/Date
High Level Project Scope	TR Framework Upgrade and corresponding provisioning changes
Impacted Systems	TR, AIM

Milestone Type	Milestone Name	Dates	Status
BRS	BRS	NA	NA
User Guides	http://www.caiso.com/participate/Pages/ApplicationAccess/Default.aspx Updated Transmission Register PTO Administrator User Manual Updated Transmission Register Component Linking Manual Updated Transmission Register Autoloader User Manual Updated Transmission Register CAISO & PTO General User Manual	Nov 20, 2023 Nov 20, 2023 Nov 20, 2023 Nov 20, 2023	✓ ✓ ✓ ✓
Training	Training	Nov 15, 2023	✓
Market Sim	Market Sim Window	Nov 27, 2023 – Jan 31, 2024	✓
Production	Production	Feb 27, 2024	

2024 – Hybrid Resources 2C RIMS

Project Information	Details/Date
High Level Business Problem or Need	<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>
High Level Project Scope	<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>
BPM Changes	Settlements & Billing
Impacted Systems	<p>Summer 2023: Settlements</p> <p>Fall 2023: Metered Quantities for Hybrids</p> <p>Independent 2024: RIMS</p> <p>Completed: Today's Outlook, ISO Today Mobile Application, Reports</p>
Requirements	http://www.caiso.com/Documents/BusinessRequirementsSpecifications-HybridResourcesPhase2.pdf

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	No
Impacted Systems	CRR, AIM, CMRI, OASIS, CTS, Market Clearing, EMMS, IFM/RTN, MQS, Master File, MPP, Settlements, WebOMS, ETCC.

2024 - Congestion Revenue Rights (CRR) Upgrade

System	High Level Changes
CRR	Significant system upgrade including: <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

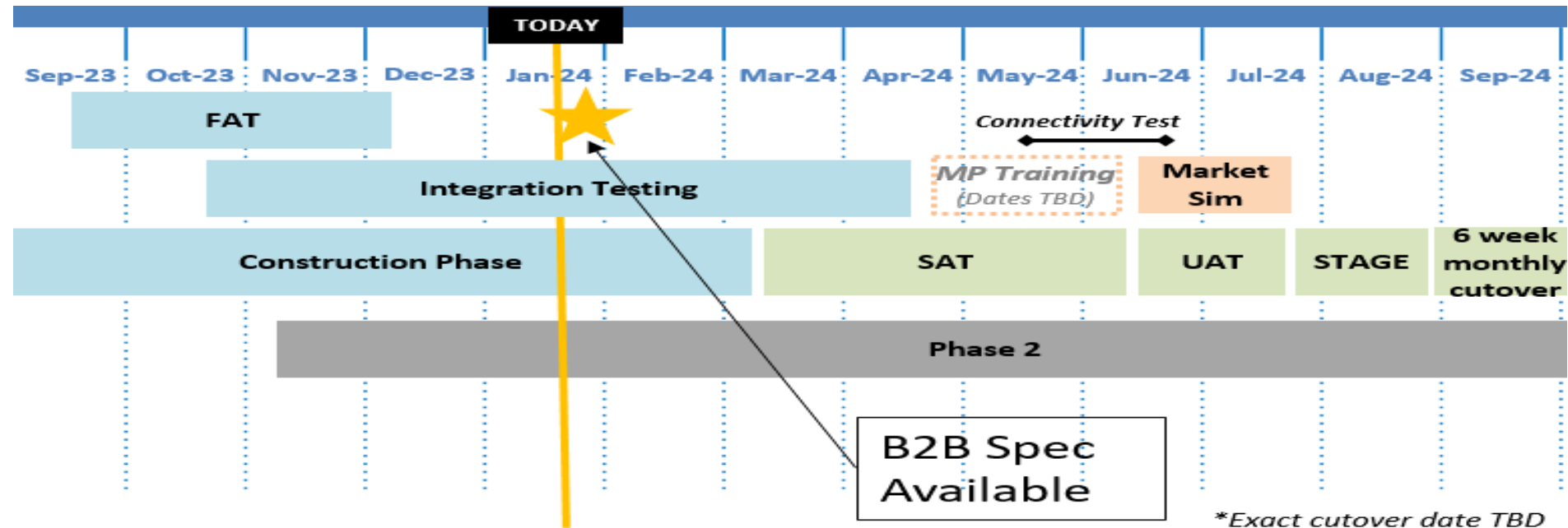
2024 - Congestion Revenue Rights (CRR) Upgrade

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	
Market Sim	Market Sim	May 2024 – Jun 2024	
Go Live	Target go live in August to start 6 week monthly-cycle cutover for October 2024 allocation and auction markets 2025 Annual Cycle - working on cutover plan	Aug 2024	
Customer Partnership Group	Last CPG	Jan 25, 2024	✓
	Next CPG (Now on Thursdays)	Feb 22, 2024	

2024 - Congestion Revenue Rights (CRR) Upgrade

Updated January 2024

- Updated B2B Specs available this month – Details will be discussed on TUG call on 1/30/24
 - Feedback from MPs on mock services provided last year
- Integration testing continues
- Functional testing (Site Acceptance Testing - SAT) starting in March.
- Connectivity Testing to start in May, in preparation for Market Sim in June
- Training will occur two weeks before Market Sim starts
- Target go live in August to start 6 week monthly-cycle cutover for October 2024 allocation and auction markets
- 2025 Annual Cycle - working on cutover plan



2024 - CRR System Upgrade – Get Connected

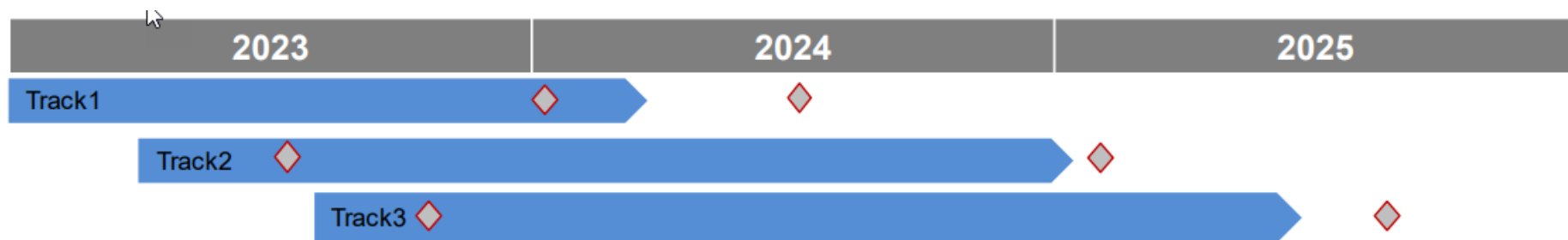
- CRR meetings:
 - **Bi-weekly Technical User Group (TUG)** Tue 10 AM, alternates with RUG.
 - Meetings available on the CAISO calendar on www.caiso.com
 - Meeting details and presentation materials are available on the CAISO Developer site at www.developer.caiso.com , which requires an account to be setup for access
 - **CRR Customer Partnership Group**
 - **Last CPG Jan 25, 2024; [recording available](#)**
 - **Next CPG meeting is *Thursday, Feb 22, 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	Jan 30, 2024	✓
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.

Spring 2026 Release

Day Ahead Market Enhancements

Project Information	Details/Date
High Level Business Problem or Need	<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 real-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>
High Level Project Scope	<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
BPM Changes	Settlements and Billing, Market Instruments & Market Operations
Tariff Changes	Sections 27, 31, 34, 39
Impacted Systems	MF, SIBR, DAM, OASIS, CMRI, Settlements & Internal Systems

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	Mar 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	
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 BRS Revisions 1/4

- BRS v1.1 published 12/22/23
- Updated for the following
 1. Clarified, corrected typos and cleaned up the document.
 2. Moved some requirements from DAME BRS to EDAM BRS and vice versa.
 3. Updated business requirement to match filed Tariff and/or clarified policy.
 - a. Restored back RCU/RCD bid caps to \$250.
 - b. Set MSS-specific annual RUC participation flag to always Opt-In.
 - c. Netted RCU/RCD Overlapping RA Capacity from RUC BCR calculations.
 - d. Updated for not assessing RAAIM to IR and RC awards for generic and Flex RA.
 - e. Extended the DA and Base Schedule Forecast Movement to virtual supply and demand resources.
 - f. Extended the FMM deviation settlements to virtual supply and demand resources.
 - g. Accounted for virtual FM in allocation of residual Forecasted Movement Settlements.
 - h. Made the LSE-Resource Pair True-Up flag on LSE-Resource Pair instead of LSE-only and updated its logic and submission system from Master File to CIRA.
 - i. Set UEL to 0 for System Resources, if e-tag validation fails.
 - j. Required that resources with RCU Award that submitted a DA Energy Bid to export outside the EDAM Area must provide a decremental RT Energy Bid to dispatch down the export schedule in the FMM.
 - k. Updated for not mitigating RCU Bids that are submitted on behalf of imports from outside the EDAM Area.
 - l. Published IRU/IRD and RCU/RCD Overlapping RA Capacity in CMRI reports.
 - m. Changed calculation of ramp rate segment for IRU and IRD to correspond to DAES instead of DAES+IRU and DAES-IRD.
 - n. Removed the requirement of intertie congestion components being included in RCU/RCD marginal prices.
 - o. Updated AS SOC formulation constraints formulation.
 - p. Accounted for Imbalance Reserve Surplus in market optimization, Settlements and reporting.
 - q. Allowed bid daily min energy limit positive or negative in SIBR, consistent with market.
 - r. Expand Imbalance Reserve Requirement input model to cover Trading Day+1, +2 for market and reporting.
 - s. Added formulas for Certified Capacity for IRU and IRD.
 - t. Replaced Proxy RCU Flag with Proxy RCU MW, as applicable.
 - u. Marked all days as Weekdays Day Type for BARC's IR quantile regression model.
 - v. Updated formulation of: IRx BAA Average Price, IRx BAA Derived Price, Tier-2 IRx BAA Allocation Cost for Settlements.

Day Ahead Market Enhancements BRS Revisions 2/4

BRS v1.1 published 12/22/23

Section	Overview of Changes	Reason for Update	Updated	New	Removed
1.3 Scope, 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 5.7 Manage Market Quality System, 5.8 Manage Market Billing & Settlements, 5.9 Manage Market Reporting, 5.10 Manage FERC Reporting, 5.12 Market/Business Simulation, 6.1 Appendix A – Acronym Definition	1. Clarified, corrected typos and cleaned up the document.	Clean Up	\$1.3, BRQ-02020, BRQ-02030, BRQ-02150, BRQ-03060, BRQ-04005, BRQ-04008, BRQ-04020, BRQ-04030, BRQ-04031, BRQ-04060, BRQ-04070, BRQ-04131, BRQ-04132, BRQ-04134, BRQ-04150, BRQ-04160, BRQ-04200, BRQ-04220, BRQ-04240, BRQ-04250, BRQ-04260, BRQ-04280, BRQ-04290, BRQ-04300, BRQ-04310, BRQ-04320, BRQ-04330, BRQ-04331, BRQ-04350, BRQ-04360, BRQ-04370, BRQ-04380, BRQ-04390, BRQ-04400, BRQ-04451, BRQ-04452, BRQ-04453, BRQ-05000, BRQ-05002, BRQ-05010, BRQ-05021, BRQ-05025, BRQ-05050, BRQ-05060, BRQ-05070, BRQ-05090, BRQ-05100, BRQ-05110, BRQ-05120, BRQ-05144, BRQ-05160, BRQ-05170, BRQ-07615, BRQ-07860, BRQ-09180, BRQ-09240, BRQ-09260, BRQ-09280, BRQ-09380, BRQ-09520, BRQ-10180, BRQ-10220, BRQ-10260, BRQ-10720, BRQ-11420, MSIM-15020, §6.1	BRQ-03070, BRQ-05001	BRQ-07580
5.7 Manage Market Quality System	2. Moved some requirements from DAME BRS to EDAM BRS and vice versa.	Reorganization		BRQ-07875	
5.4 Manage DAM - IFM, 5.5 Manage DAM – RUC	3.a. Restored back RCU/RCD bid caps to \$250.	Tariff/Policy Alignment	BRQ-04090, BRQ-05002		
5.1 Resource Management, 5.8 Manage Market Billing & Settlements	3.b. Set MSS-specific annual RUC participation flag to always Opt-In.	Tariff/Policy Alignment	BRQ-09180	BRQ-01130	
5.8 Manage Market Billing & Settlements	3.c. Netted RCU/RCD Overlapping RA Capacity from RUC BCR calculations.	ISO SME Feedback	BRQ-09220		
5.8 Manage Market Billing & Settlements	3.d. Updated for not assessing RAAIM to IR and RC awards for generic and Flex RA.	Tariff/Policy Alignment		BRQ-09310	
5.7 Manage Market Quality System	3.e. Extended the DA and Base Schedule Forecast Movement to virtual supply and demand resources.	Tariff/Policy Alignment	BRQ-07320		
5.8 Manage Market Billing & Settlements	3.f. Extended the FMM deviation settlements to virtual supply and demand resources.	Tariff/Policy Alignment	BRQ-09340		

Day Ahead Market Enhancements BRS Revisions 3/4

BRS v1.1 published 12/22/23

Section`	Overview of Changes	Reason for Update	Updated	New	Removed
5.8 Manage Market Billing & Settlements	3.g. Accounted for virtual FM in allocation of residual Forecasted Movement Settlements.	Tariff/Policy Alignment		BRQ-09350	
5.1 Resource Management, 5.8 Manage Market Billing & Settlements, 5.10 Manage FERC Reporting, 5.11 Manage Resource Adequacy Requirements	3.h. Made the LSE-Resource Pair True-Up flag on LSE-Resource Pair instead of LSE-only and updated its logic and submission system from Master File to CIRA.	Tariff/Policy Alignment Participants Feedback	BRQ-09380, BRQ-11420	BRQ-13005, BRQ-13010, BRQ-13012, BRQ-13013, BRQ-13015, BRQ-13017	BRQ-01100, BRQ-01120
5.6 Manage RTM	3.i. Set UEL to 0 for System Resources, if e-tag validation fails.	Tariff/Policy Alignment ISO SME Feedback		BRQ-06065	
5.6 Manage RTM	3.j. Required that resources with RCU Award that submitted a DA Energy Bid to export outside the EDAM Area must provide a decremental RT Energy Bid to dispatch down the export schedule in the FMM.	Tariff/Policy Alignment	BRQ-06010		
5.5 Manage DAM – RUC	3.k. Updated for not mitigating RCU Bids that are submitted on behalf of imports from outside the EDAM Area.	Tariff/Policy Alignment	BRQ-05025		
5.9 Manage Market Reporting, 5.12 Market/Business Simulation	3.l. Published IRU/IRD and RCU/RCD Overlapping RA Capacity in CMRI reports.	ISO SME Feedback	BRQ-10780, MSIM-15020		
5.7 Manage Market Quality System	3.m. Changed calculation of ramp rate segment for IRU and IRD to correspond to DAES instead of DAES+IRU and DAES-IRD.	ISO SME Feedback	BRQ-07600		
5.5 Manage DAM – RUC	3.n. Removed the requirement of inertia congestion components being included in RCU/RCD marginal prices.	ISO SME Feedback	BRQ-05160, BRQ-05170		
5.4 Manage DAM – IFM	3.o. Updated AS SOC formulation constraints formulation.	ISO SME Feedback	BRQ-04331, BRQ-04331A, BRQ-04332		
5.1 Resource Management,, 5.4 Manage DAM - IFM, 5.7 Manage Market Quality System, 5.8 Manage Market Billing & Settlements, 5.9 Manage Market Reporting, 5.10 Manage FERC Reporting, 5.12 Market/Business Simulation	3.p. Accounted for Imbalance Reserve Surplus in market optimization, Settlements and reporting.	ISO SME Feedback	BRQ-04452, BRQ-04453, BRQ-07860, BRQ-09540, BRQ-10160, BRQ-10260, BRQ-11420, MSIM-15020	BRQ-01150, BRQ-04454, BRQ-09530, BRQ-09535	BRQ-04452A
5.4 Manage DAM - IFM	3.q. Allowed bid daily min energy limit positive or negative in SIBR, consistent with market.	ISO SME Feedback		BRQ-04070	

Day Ahead Market Enhancements BRS Revisions 4/4

- BRS v1.1 published 12/22/23

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.2 Manage the Balancing Authority Requirements Calculator, 5.4 Manage DAM - IFM, 5.9 Manage Market Reporting, 5.10 Manage FERC Reporting	3.r. Expand Imbalance Reserve Requirement input model to cover Trading Day+1, +2 for market and reporting.	Participants 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-04150, BRQ-10260, BRQ-10280, BRQ-10300, BRQ-10320, BRQ-10340, BRQ-10360, BRQ-11420		
5.1 Resource Management	3.s. Added formulas for Certified Capacity for IRU and IRD.	ISO SME Feedback	BRQ-01000, BRQ-01010		
5.9 Manage Market Reporting, 5.10 Manage FERC Reporting	3.t. Replaced Proxy RCU Flag with Proxy RCU MW, as applicable.	ISO SME Feedback	BRQ-10720, BRQ-11420		
5.1 Resource Management, 5.2 Manage the Balancing Authority Requirements Calculator	3.u. Marked all days as Weekdays Day Type for BARC's IR quantile regression model.	ISO SME Feedback	BRQ-02010	BRQ-01180	
5.8 Manage Market Billing & Settlements	3.v. Updated formulation of: IRx BAA Average Price, IRx BAA Derived Price, Tier-2 IRx BAA Allocation Cost for Settlements.	ISO SME Feedback	BRQ-09160		

Extended Day Ahead Market (EDAM) Implementation

Project Information	Details/Date
High Level Business Problem or Need	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.
High Level Project Scope	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.
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	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

Extended Day Ahead Market (EDAM) Implementation

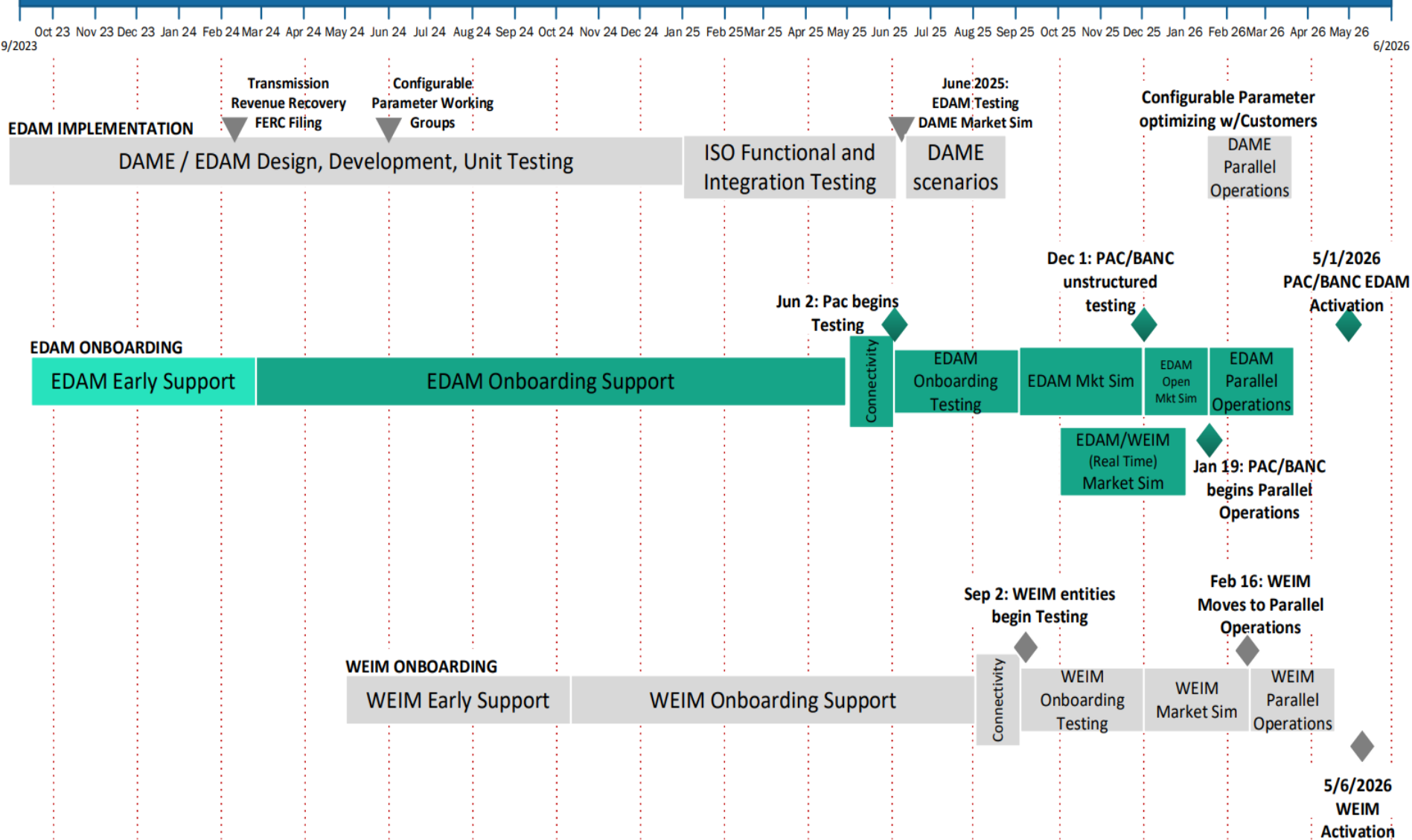
Milestone Type	Milestone Name	Dates	Status
External BRS	Publish External BRS v1.0	Aug 02, 2023	✓
	Publish External BRS v1.1	Dec 22, 2023	✓
	Publish External BRS v1.2	Mar 2024	
Tariff	Draft Tariff Language	Mar 30, 2023	✓
	Revised Draft Tariff Language	Jun 08, 2023	✓
	Updated Revised Draft Tariff Language	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	
	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	Feb 2024	
	Publish Technical Specifications – OASIS	Q1 2024	
	Publish Technical Specifications – CMRI	Q1 2024	
	Publish Technical Specifications – PLC	Q1 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		
External Training	Post Draft BPM – Definitions and Acronyms		
	Training	TBD	
Market Sim	Fall 2025 Release Market Simulation Plan	Jan 24, 2024	
	Market Sim Scenarios	Jan 29, 2024	
Production	EDAM Onboarding Market Sim	Sep 01, 2025 – Jan 16, 2026	
	EDAM Production Deployment - Inactive	Oct 01, 2025	
	EDAM Onboarding (Financially Binding) & Activation (PacifiCorp & BANC	May 01, 2026	

EDAM & DAME Activation May 1, 2026

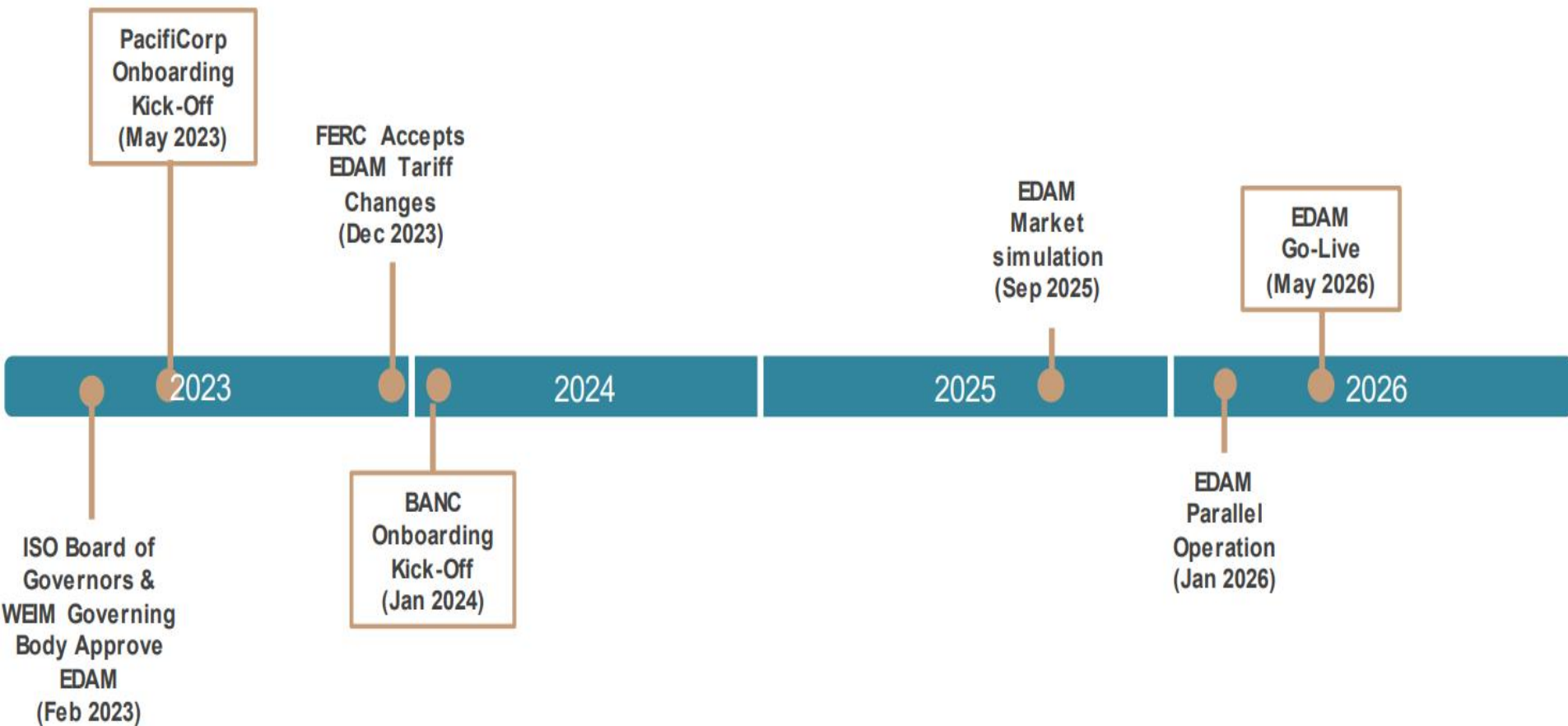
1/24/2023

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 v1.1 published 12/22/23

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.1: Model & Contract Implementation & FNM (Master File)	<ul style="list-style-type: none"> EDAM Entities to sign attestation for non-participating demand response (DR) schedules Details added for EDAM entity election for DR inclusion Clarifications for mirror system resources in WEIM to mirror DA schedules Model for existing system resources: location will move to BAA DGAP Definitions of OATT 1 and OATT 2 contract types <ul style="list-style-type: none"> OATT 1: Receives higher scheduling priority in RT than DA schedules OATT 2: Receives equal scheduling priority in RT with DA schedules GHG regulation area clarifications <ul style="list-style-type: none"> Including intertie association with GHG regulation area Extend definition of Imbalance Demand Hub to EDAM BAAs 	<ul style="list-style-type: none"> Tariff/Policy Alignment ISO SME Feedback 	BRQ-02010, BRQ-02030, BRQ-02040, BRQ-02042, BRQ-02044, BRQ-02050, BRQ-02051, BRQ-02054, BRQ-02080, BRQ-02082, BRQ-02083, BRQ-02085, BRQ-02100, BRQ-02102, BRQ-02120, BRQ-02130, BRQ-02140, BRQ-02141, BRQ-02142, BRQ-02150, BRQ-02185	BRQ-02041, BRQ-02083a, BRQ-02083b, BRQ-02089a, BRQ-02146, 02250	BRQ-02200
5.2: Forecasting (ALFS)	<ul style="list-style-type: none"> Forecast shall not be modified to account for DA RDRR <ul style="list-style-type: none"> RDRR is treated as supply in RT Clarifications for DR Load Factor (LF) adjustment in DA Demand forecast 	<ul style="list-style-type: none"> ISO SME Feedback Policy Alignment 	BRQ-04010b, BRQ-04012, BRQ-04013, BRQ-04020a, BRQ-04021, BRQ-04051, BRQ-04052, BRQ-04053, BRQ-04054, BRQ-04058, BRQ-04059, BRQ-04060, BRQ-04065	BRQ-04032, BRQ-04040	
5.3: BAA Requirement Calculation (Internal ISO System)	No major changes—clarifications only	Clean Up	BRQ-05020, BRQ-05050, BRQ-05080		
5.4: Default Energy Bids (Internal ISO System)	NDEB process expanded to EDAM	ISO SME Feedback	BRQ-08020, BRQ-08030, BRQ-08040, BRQ-08050, BRQ-08080, BRQ-08130	BRQ-08135	

Extended Day Ahead Market BRS Revisions

- BRS v1.1 published 12/22/23

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.5: Bid and TSR Submission (SIBR)	<ul style="list-style-type: none"> Intertie transactions for imports/exports at CISO scheduling points with non-WEIM BAAs in RTM <ul style="list-style-type: none"> Specify DGAP of source/sink non-EIM BAA Not support transaction ID (intertie transactions at CISO scheduling points) between EDAM BAAS <ul style="list-style-type: none"> For DA: Use EDAM transfers For RT: Use dynamic transactions Clarifications for submissions of mirror system resources in WEIM to mirror DA schedules For DA schedules using SDGAP: enforce buy-back in RTM Maximum bid adder clarifications and examples Consider resource Pmin for flexible RA capacity SIBR to report on EDAM entity submitted hourly net export transfer out constraint <ul style="list-style-type: none"> Includes confidence factor, reliability margin EDAM entity to have access to resource and intertie bids in the RSE in their BAA 	ISO SME Feedback	BRQ-11010, BRQ-11013, BRQ-11015, BRQ-11030, BRQ-11054, BRQ-11055, BRQ-11060, BRQ-11070, BRQ-11080, BRQ-11100, BRQ-11102, BRQ-11110, BRQ-11120, BRQ-11130, BRQ-11140, BRQ-11170, BRQ-11172, BRQ-11180, BRQ-11190, BRQ-11210, BRQ-11222, BRQ-11250, BRQ-11260, BRQ-11290	BRQ-11054a, BRQ-11055a, BRQ-11058, BRQ-11058a, BRQ-11059, BRQ-11099, BRQ-11101, BRQ-11103, BRQ-11112, BRQ-11280, BRQ-11291, BRQ-11295	
5.6: DAM Resource Sufficiency Evaluation (DA-RSE)	<ul style="list-style-type: none"> DR LF adjustments Report RSE required movement between EDAM BAAS 	ISO SME Feedback	BRQ-12008, BRQ-2016D, BRQ-1203a, BRQ-12040, BRQ-12080, BRQ-12090, BRQ-12110, BRQ-12150, BRQ-12160	BRQ-12016A, BRQ-12016B, BRQ-12017, BRQ-12020, BRQ-12030	
5.7: Day Ahead Market (MPM, IFM)	<ul style="list-style-type: none"> MPM for energy applied at BAA level MPM for IRU applied at BAA level Extend to EDAM BAAs: hourly IRU/IRD surplus value and LMP components 	<ul style="list-style-type: none"> ISO SME Feedback Participant Feedback 	BRQ-13020, BRQ-13050, BRQ-13052, BRQ-13070, BRQ-13095, BRQ-13100, BRQ-13130, BRQ-13162	BRQ-13060a, BRQ-13060b, BRQ-13060c, BRQ-13060d, BRQ-13161	
5.8: Residual Unit Commitment (RUC, DAM)	Apply MPM for RCU at BAA level	<ul style="list-style-type: none"> ISO SME Feedback Participant Feedback 	BRQ-14010, BRQ-14074	BRQ-14014	

Extended Day Ahead Market BRS Revisions

- BRS v1.1 published 12/22/23

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.9: Tagging DAM Schedules (RTSI, ITS, SIBR)	No major changes—clarifications only	Clean Up	BRQ-15010, BRQ-15060, BRQ-15063, BRQ-15071, BRQ-15200		
5.10: Real Time Market (RTM-RSE, RTM)	<ul style="list-style-type: none"> • Auto mirror DA schedule between EIM BAA and EDAM BAA • Include mirror resource for EDAM DA schedule for energy in WEIM BAA Power Balance Constraint • HASP hourly block schedules revert to RUC schedule if HASP fails • MPM at BAA level for energy in WEIM • WEIM Available Balance Capacity (ABC) functionality shall apply to EDAM BAA 	<ul style="list-style-type: none"> • ISO SME Feedback • Participant Feedback 	BRQ-16020, BRQ-16065, BRQ-16090, BRQ-16100	BRQ-16016, BRQ-16088, BRQ-16104, BRQ-16112a, BRQ-16112b, BRQ-13112c, BRQ-16112d, BRQ-16140	
5.11: GHG Model IN DAM and RTM (GHG Pass, DAM, RTM)	<ul style="list-style-type: none"> • Predefined GHG loss factor for each GHG area--used for GHG loss calculation • Clarifications and details added to definitions of resource-specific GHG model • Gross GHG attribution constraint clarifications • GHG net export constraint clarifications 	<ul style="list-style-type: none"> • Tariff/Policy Alignment • ISO SME Feedback 	BRQ-17020, BRQ-17030, BRQ-17040, BRQ-17050, BRQ-17060, BRQ-17070a, BRQ-17080, BRQ-17090, BRQ-17110, BRQ-17120, BRQ-17200, BRQ-17210	BRQ-17022, BRQ-17070, BRQ-17122	BRQ-17220
5.12: Market Quality, Validation, and Price Corrections (Internal ISO Systems)	<ul style="list-style-type: none"> • Extend to EDAM Resource Auxiliary Capacity Calculations • Extend to EDAM RT Commitment Cost Determinations • Extend to EDAM 5-min ramp capable portion data calculations • Extend to EDAM use of IFM MSG configuration as reference for RT MLC Calculations 	ISO SME Feedback		BRQ-18530, BRQ-18535, BRQ-18545, BRQ-18547, BRQ-18550	

Extended Day Ahead Market BRS Revisions

- BRS v1.1 published 12/22/23

Section	Overview of Changes	Reason for Update	Updated	New	Removed
5.13: Billing and Settlements (MRI-S, Settlements)	<ul style="list-style-type: none"> Fallback option to most recently available prices if 16 hour block hub prices are not available TSR transfer revenue allocations clarifications RTM resource TSR deviation settlements Force Majeure indemnity, liability and penalties Good faith negotiations 	<ul style="list-style-type: none"> ISO SME Feedback Policy/Tariff Alignment FERC Feedback 	BRQ-19010, BRQ-19014, BRQ-19022, BRQ-19026, BRQ-19050, BRQ-19052, BRQ-19063, BRQ-19075, BRQ-19110, BRQ-19115, BRQ-19120, BRQ-19130, BRQ-19140, BRQ-19150, BRQ-19160, BRQ-19170, BRQ-19172, BRQ-19175, BRQ-19240, BRQ-19274, BRQ-19288, BRQ-19298, BRQ-19370, BRQ-19380, BRQ-19400, BRQ-19430, BRQ-19430	BRQ-19042, BRQ-19051, BRQ-19055, BRQ-19056, BRQ-19490, BRQ-19500	BRQ-19180, BRQ-19182, BRQ-19190, BRQ-19300, BRQ-19310, BRQ-19320, BRQ-19330, BRQ-19340, BRQ-19350, BRQ-19360, BRQ-19362
5.14: Market Reporting (CMRI, OASIS, Today's Outlook)	<ul style="list-style-type: none"> Added details for existing reports Added new reports to be created for EDAM 	ISO SME Feedback	BRQ-20000, BRQ-20013, BRQ-20023, BRQ-20030, BRQ-20050, BRQ-20052, BRQ-20054, BRQ-20062, BRQ-20065, BRQ-20070, BRQ-20082, BRQ-20100, BRQ-20110, BRQ-20120, BRQ-20130, BRQ-20140	BRQ-20010, BRQ-20011, BRQ-20020, BRQ-20022, BRQ-20024, BRQ-20031, BRQ-20051, BRQ-50053, BRQ-20057, BRQ-20068, BRQ-20084, BRQ-20150, BRQ-20156, BRQ-2245, BRQ-20260	
5.15: FERC Reporting (Internal ISO System)	<ul style="list-style-type: none"> Extend publish of DAME-related data to FERC Publish DR LF Adjustment Data to FERC 	<ul style="list-style-type: none"> Policy/Tariff Alignment ISO SME Feedback 	BRQ-20230, BRQ-20240	BRQ-20227, BRQ-20242	
5.16: Outages (WebOMS)	Allow EDAM entity to access Market Impact Tab in WebOMS—additional details provided	ISO SME Feedback	BRQ-22049, BRQ-22050		
5.17: Market Simulation	Additional details added to preliminary scenarios	ISO SME Feedback	BRQ-24020, BRQ-24040, BRQ-24060, BRQ-24080, BRQ-24100, BRQ-24120, BRQ-24140, BRQ-24160, BRQ-24220, BRQ-24240		

Spring 2026 – EDAM ISO BAA Participation Rules Track A

➤ Project Information	➤ Details/Date
➤ High Level Project Scope	<ul style="list-style-type: none"> ➤ 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 Readiness Certification	Mar 2026
Production	Activation	May 2026

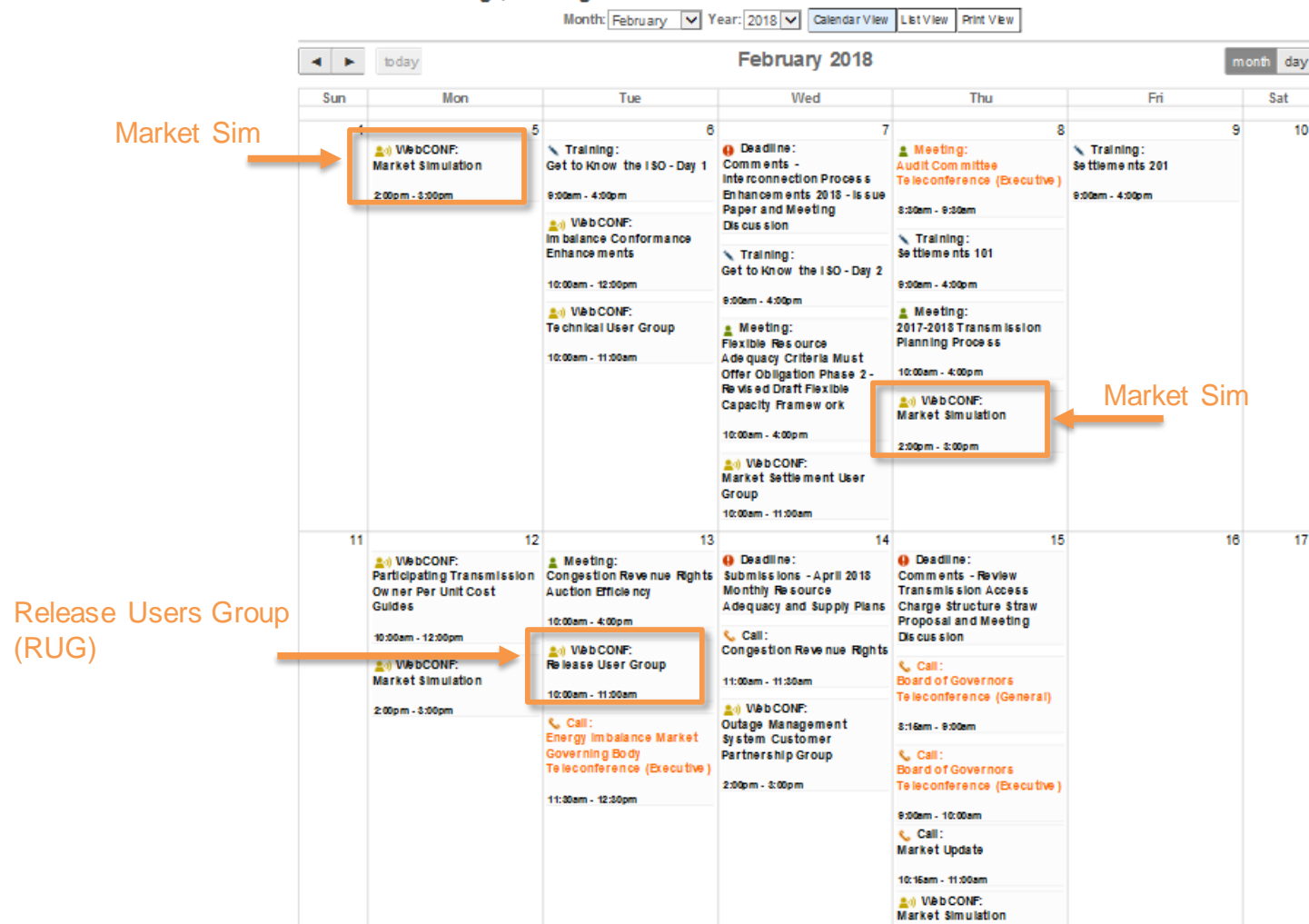
Stay Informed

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



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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18	19	20	21	22	23	24
25	26	27	28	29		

March						
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24	25	26	27	28	29	30
31						

April						
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28	29	30				

May						
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12	13	14	15	16	17	18
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26	27	28	29	30	31	

June						
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23	24	25	26	27	28	29
30						

July						
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14	15	16	17	18	19	20
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28	29	30	31			

August						
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25	26	27	28	29	30	31

September						
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29	30					

October						
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27	28	29	30	31		

November						
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December						
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

 CAISO Holiday

 RUG Forum

Contact

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