



California ISO

Congestion Revenue Rights (CRR) Upgrade Project - Customer Partnership Group

Updates – July 13, 2022

Congestion Revenue Rights Team

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ISO PUBLIC

Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon located on the top right above the chat window. Note: #2 only works if you dialed into the meeting. 🖐️
 - Please remember to state your name and affiliation before making your comment.
 - You may also send your questions via chat to Brenda Corona or to all panelists.

Agenda

Time	Topic
10:00 – 10:05	Welcome
10:05 – 10:15	CRR Upgrade Project - Overview
10:15 – 10:25	CRR Upgrade project – Get connected
10:25 – 10:55	CAISO B2B Improvements – Goals & Current Status
10:55 – 11:00	Next Steps

CRR Upgrade Project - Overview

- The ISO has decided to upgrade the existing CRR system with a new system that adopts the latest technology stack aligned with the ISO's technology standards, consolidates all CRR related functions, minimizes human errors, reduces processing time, eliminates manual workarounds, and positions the system to accommodate policy changes down the road.
- This on-going Customer Partnership Group (CPG) will provide an overview of the schedule, review of external BRS and answer questions. Subsequent meetings will include detailed review and discussion of business process changes impacting market participants.
- http://www.caiso.com/Documents/BusinessRequirementsSpecification_Con gestionRightsRevenueUpgrade.pdf
- The goal of this CPG is to ensure customer readiness as this project deploys to Production in 2024.

Timeline

CRR System Replacement Timeline

Schedule approved by CAISO and RI

Contract amendment in progress



CRR Upgrade Project – Get connected

- Launching a bi-weekly Customer Partnership Group (CPG) focused on the Congestion Revenue Rights (CRR) System Upgrade Project.
- A presentation will be posted prior to the call on the ISO website [here](#).
- Meeting Details:
 - Date: July 13, 2022
 - Time: 10 a.m. - 11 a.m. Pacific Time
 - [Add to calendar](#)
- Call Details Information
 - Step 1: <https://caiso.webex.com/meet/jmalekos>
 - Step 2: Have the WebEx call you directly.
 - If you do not have access to the internet
 - Dial In Number: 844-517-1271

CRR Upgrade Project– Overview of changes

- Load submission process
 - At the time of load submission participant will be notified of any failed validation per sink location based on the exceedance load and allow to resubmit
- OBAALSE process
 - EQ load election will be submitted through the UI during the OBAALSE load submission

CRR Upgrade Project – Phase 2 BRQ

- BRQ00220 - The CRR system publishing of the calendar to OASIS shall be automatic. Published once per year and ability to edit before publication.
- BRQ03630 - Broadcast set aside value to OASIS
- BRQ05262 - Broadcast credit margin report to OASIS
- BRQ05264 - Broadcast 3 year historical expected value to OASIS
- BRQ05786 - Broadcast Retired Resource Name Change Mapping to OASIS
- BRQ06770 - Broadcast Binding Constraints to OASIS
- BRQ06871 - Broadcast CRR source and sink list to OASIS

Next Steps

- Next meeting is August 10, 2022
- Visit CPG webpage for more information:
<http://www.caiso.com/informed/Pages/MeetingsEvents/CustomPartnershipGroups/Default.aspx>

August						
Su	Mo	Tu	We	Th	Fr	Sa
	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			



- The ISO is pleased to be hosting the Stakeholder Symposium in-person at the Safe Credit Union Convention Center in downtown Sacramento on Nov. 9 – 10, 2022
- Registration will be open in June
 - Public notice will be issued once the site is available
- Additional information is available on the Stakeholder Symposium page on ISO's website at:
<http://www.caiso.com/informed/Pages/MeetingsEvents/StakeholderSymposium/Default.aspx>
- Please direct questions to symposiumreg@caiso.com

Reference Slides

CRR Upgrade Project– Overview of changes

- Consolidate data publishing in MUI and/or OASIS
 - Calendar: change from webpost to OASIS
 - Model data: change from webpost to MUI, including both NDA and non NDA files
 - Market Result data: from webpost to MUI
- Modeling data
 - Powerflow case to be released in PSSE v30
 - ITC definition will be modeled as source and sink
- Features added to enable user performing additional tasks
 - MT_TOR: user to submit through UI, currently performed by CRR group
- Changes to Load Migration and Source and Sink processes
- User access
 - User will be provisioned to specific functions within the system, based on the application access request approval process
- Webservices interface for interacting with MUI

- Source and Sink list release
 - Remove the existing 30 days ahead of allocation version
 - Will be released in v0, v1 and other updates within the active market period
- Retired resource mapping
 - Re-map the retired PNode to the closest electrically connected PNode that is also a biddable location in the CRR processes and has the same source/sink designation as the retired location
 - Baseloading CRR will be mapped based on the model used in the active market period to capture the most accurate topology
 - Mapping will be released for the corresponding market period
- Source and Sink islanded by outage
 - With baseloading CRR, sell offer allowed
 - No baseloading CRR, will not be biddable for the effective market

CAISO B2B Improvements – Goals & Current Status

- **Goals**

- Enhance the developer experience working with CAISO Web API's
- Provide API's in REST/JSON using OpenAPI 3.0 specification
- Provide examples, mock services and tooling to generate client/server stubs and SDK
- Provide tests for the API's using Postman collections
- Collaboration using Git and forums on developer.caiso.com
- Simplify authentication using mutual TLS and X.509 certificates

- **Update**

- POC updates and notes and recording from meetings are posted on developer forum at <https://developer.caiso.com/forum/topics.aspx?ForumID=4>.
- Documents uploaded to the Developer Forum:
<https://developer.caiso.com/forum/messages.aspx?TopicID=6119>
 - PowerPoint presentation and webinar recording
 - Draft version of CRR Auction Service OpenAPI Specifications
 - Draft version of CRR business validate message bundle

CAISO B2B Improvements – File Naming Convention

A2A/B2B OpenAPI File Naming Conventions for versioning:

File name example: **caiso_crr_market_info_v1.0.0_openapi.yaml**

Version Numbering Format: **MARJOR.MINOR.MINI**

MAJOR version of the file name will be incremented if there are any new services added or any major version update to any of the existing services

MINOR version of the file name will be incremented if there any minor version update to any of the existing services

MINI version of the file name will be incremented if there are only documentation changes/corrections, with no service changes.

CAISO B2B Improvements

Each version update of the file name will reset the version numbers on the right

Version numbers will be tracked into the YAML file as part of the ReleaseNotes

Example:

- v1.0.0 File is published to market participants
- v1.0.1 Edits were made to documentations, no functional changes
- v1.0.2 Edits were made to documentations, no functional changes
- v1.0.3 Edits were made to documentations, no functional changes
- v1.1.0 Added a Minor version for a service
- v1.1.1 Edits were made to documentations, no functional changes
- v1.2.0 Added a Minor version for a service
- v1.3.0 Added a Minor version for a service
- v2.0.0 Added a Major version for a service
- v2.0.1 Edits were made to documentations, no functional changes
- v3.0.0 Added a new service

CAISO B2B Improvements – New Web Services for CRR

Service	Operation
Allocation Nomination Portfolio	POST/GET
Auction Bid Portfolio	POST/GET
Historical and Forecasted Load	POST/GET
Existing CRRs (CRR Market Data)	GET
Market Data (CRR Market Data)	GET
Market Results (CRR Market Data)	GET
Private Allocation Results (CRR Market Data)	GET
Private Auction Results (CRR Market Data)	GET
Load Migration Data	POST/GET
Market Status (Market Info)	GET
CRR Messages	GET
Secondary Market	POST/GET
TOR Conversion	POST/GET