

Congestion Revenue Rights (CRR) Upgrade Project Customer Partnership Group

July 3, 2025

10:00 a.m.-11:00 a.m. (Pacific Time)

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Housekeeping reminders

- This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO's permission.
- This collaborative meeting is intended to stimulate open dialogue and engage different perspectives.
- Please keep comments professional and respectful.
- Please try and be brief and refrain from repeating what has already been said so that we can manage the time efficiently.



Instructions for raising your hand to ask a question

- Open the Participant and Chat panels from the bottom right corner of your screen.
- If you are connected to audio through your computer or used the "call me" option, select the raise hand icon blocated at the bottom of the participant panel.
 -Note: press *3 to get into the question queue if you dialed into the meeting.
- Please remember to state your name and affiliation before making your comment.
- If you need technical assistance during the meeting, please send a chat to the event producer.
- You may also send your question via chat to either Hannah Pearson or to all panelists.

Agenda

Time (PST)	Topic
10:00 – 10:05	Welcome
10:05 – 10:15	Production Calendar
10:15 – 10:25	Questions and Next steps



Production Calendar

- Production Calendar: https://www.caiso.com/documents/2025-monthly-and-2026-annual-allocation-and-auction-calendar-revised.pdf
 - Upcoming events:
 - 7/1 MSS Gross/Net Election due
 - 7/3 Post List of August outages
 - 7/4 Post Incremental Update to August FNM
 - 7/8 September CEC Load Window opens at 1am and closes at 5pm
 - 7/9 September Historical Load Window opens at 1am and closes at 5pm
 - 7/10 September Forecasted Load Window opens at 1am
 - 7/10 August Tier 1 Nomination Window opens at 1am and closes at 5pm
 - 7/11 September Forecasted Load Window closes at 5pm
 - 7/11 OBAALSE data template due



OPEN DISCUSSION AND QUESTIONS



Next Steps

- Next meeting is tentatively scheduled for Thursday Aug 21, 2025 @10:00am, will be confirmed via notice.
- Please contact Hannah Pearson at Hpearson@caiso.com or ISOStakeholdersaffairs@caiso.com with any questions.
- General questions regarding market simulation, contact <u>marketsim@caiso.com</u>. For training questions, contact <u>CustomerReadiness@caiso.com</u>.
- Specific issues or questions regarding the CRR System Upgrade project, please submit a CIDI ticket with the subject "<Project Name>: <System Name> - <Issue Title>" with the functional environment associated.
- Visit CPG webpage for more information: https://www.caiso.com/meetings-events/topics/congestion-revenue-rights-crr-settlement-upgrade-project-customer-partnership-group
- Starting February 2025 and moving forward WebEx details for each meeting can be found at the notice or ISO calendar.
- Participating in the monthly CRR Customer Partnership Group (CPG) forum. All calls are scheduled through
 the end of the year and a notice will provide the latest call-in details for each meeting.



This Week at the ISO -06/30/25

Stakeholder Meetings

All public stakeholder meetings are also listed on the ISO calendar:

All public stakeholder meetings are also listed on the ISO <u>calendar</u>:

- Monday, June 30th <u>Storage Design and Modeling</u>
 - 9:00am 4:00pm PT (link)
- Tuesday, July 1st <u>Technical User Group Forum</u>
 - o 10:00am 11:00am PT (link Developer Account Required)
- Wednesday, July 2nd <u>Settlement User Group</u>
 - o 10:00am 11:00am PT (<u>link</u>)
- Thursday, July 3rd Congestion Revenue Rights Customer Partnership Group
 - o 10:00am 11:00am PT (link)

Comment Submission Deadlines

• Thursday, July 3rd – Congestion Revenue Rights (CRR) Modeling and Settlement in the Extended Day-Ahead Market (EDAM)

Trainings

The ISO encourages market participants to review the new training page on the <u>Market Participant Portal</u>. In addition to the <u>Training Center</u>, this new training page provides Scheduling Coordinators with a centralized location for accessing computer-based training videos (to learn more, please view the <u>High-Level Overview</u> video).

None scheduled this week



ISO Public

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This Week at the ISO continued

Market Simulations

Please refer to our Release Schedule for the most recent updates of initiatives scheduled for MAP- and Production- stage market sims.

- Thursday, July 3rd DAME, EDAM, and EDAM CAISO Balancing Authority PR Market Simulation Meeting
 - 1:00pm 2:00pm PT
 - To participate in the DAME and EDAM Participation pre-Market Simulation meeting series please:
 - Submit a CIDI Request:
 - o Log in to the CAISO Customer Inquiry, Dispute, and Information (CIDI) system.
 - Create a new request with the 'Functional Environment' set to "Market Simulation."
 - o In the request, specify your intent to participate in the DAME & EDAM Market Simulation.
 - o Include the following information:
 - Market Simulation initiative(s) you will participate in.
 - Any specific resources or systems you plan to test.
 - Contact names and email addresses for coordination.
 - Email Option:
 - If you do not have access to CIDI, you may send an email to <u>marketsim@caiso.com</u> with the subject line
 "DAME & EDAM Market Simulation Registration."
 - o Provide the same information as outlined above.

Business Practice Manual (BPM) Updates

The status of all PRRs and updated BPMs in the BPM Library are published on the BPM Change Management Website.

- Tuesday, June 24th <u>BPM Change Management Proposed Revision Request Review</u>
 - 11:00am 12:00pm PT (link)



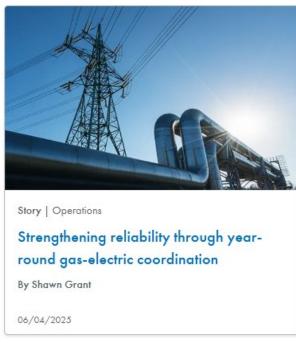
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Energy Matters blog provides timely insights into ISO grid and market operations as well as other industry-related news.

https://www.caiso.com/about/news/energy-matters-blog







Subscribe to Energy Matters blog monthly summary



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REFERENCE SLIDES



Production AIM Provisioning

As of 4/02/2025, CRR Holders and/or Load-Serving Entities that were provisioned in AIM as:

- EXTERNAL MUI USER WITH NDA or
- EXTERNAL MUI RESTRICTED WITHOUT NDA

The ISO has provisioned/migrated their access to:

EXTERNAL CRR HOLDER READ/WRITE ACCESS

As of 4/03/2025, CRR NDA Users that were provisioned in AIM as:

- CRRFNM EXTERNAL READ-ONLY or
- EXTERNAL MUI USER WITH NDA

Then the ISO has provisioned/migrated their access to:

• EXTERNAL CRR NDA REPORTS READ-ACCESS

<u>Please note:</u> Any **new user** who needs provisioning to the new CRR system after the migration cut-off dates above, UAAs will need to provision them to any of the applicable new roles.



Production AIM Provisioning cont.

Beginning on 4/14/2025, UAAs can provision their users in AIM to any of the upgraded CRR system Production environment new roles:

- EXTERNAL CRR HOLDER READ/WRITE ACCESS
- EXTERNAL CRR HOLDER READ ACCESS
- EXTERNAL CRR NDA REPORTS READ-ACCESS

Please note: These roles follow the existing CRR Holder participation registration process and CRR ISO Non-Disclosure Agreement process.

MapStage AIM Provisioning

- For CRR Holders and Load-Serving Entities that are currently provisioned in AIM as:
 - EXTERNAL MUI USER WITH NDA or
 - EXTERNAL MUI RESTRICTED WITHOUT NDA
- The ISO will provision/migrate access to:
 - EXTERNAL CRR HOLDER READ/WRITE ACCESS
- For CRR NDA Users that are currently provisioned as:
 - CRRFNM EXTERNAL READ-ONLY or
 - EXTERNAL MUI USER WITH NDA
- The ISO will provision/migrate their access to:
 - EXTERNAL CRR NDA REPORTS READ-ACCESS



MapStage AIM Provisioning

- If you have new users that need to be provisioned for testing, please make sure you provision them to any of these new roles:
 - EXTERNAL CRR HOLDER READ/WRITE ACCESS or
 EXTERNAL CRR HOLDER READ ACCESS
 (both above follows the existing CRR Holder participant registration process)
 - EXTERNAL CRR NDA REPORTS READ-ACCESS
 (follows the existing CRR ISO Non-Disclosure Agreement process)



CRR Refresher Training Dates/Times

Notice will be sent in the afternoon of April 17, 2025. Locate details on CAISO Website > Daily Briefing

CRR Holders

Monday April 28, 2025 from 9:00am-11:00am PST

CRR LSEs

Monday April 28, 2025 from 1:00pm-3:00pm PST

CRR UDCs

Tuesday April 29, 2025 from 9:00am-10:00am PST

Please submit any questions you might have prior to the training here: https://www.surveymonkey.com/r/CAISOreleasetrainingquestions



CRR – B2B Spec Updates

Spec File	Changes
caiso_crr_historical_forecasted_load_v1.1. 1.yaml	- Added error code SEC0002 for invalid participant name
caiso_crr_load_migration_v1.3.1.yaml	 Added error code SEC0002 for invalid participant name Added error code LMV1003 for the specified load migration market name does not exist in the system
caiso_crr_secondary_market_v1.2.1.yaml	 Added error code SEC0002 for invalid participant name Added error code SMT0016 for nonexistence of request ID in the system Added error code SMT0063 for mismatched asset owner of specified request and participant name Added error code SMT0145 when price in the response does not match price in the corresponding offer Correct description of error code SMT0082 to "Unable to retrieve a secondary market record by the given request ID and participant name."
caiso_crr_tor_conversion_v1.2.1.yaml	 Remove Start Date and End Date from ConversionApprovalRecord to be consistent with MUI TOR Conversion Approval Editor Added error code SEC0002 for invalid participant name Modified description of error code TOR0016 for nonexistence of TOR conversion window name in the system
caiso_crr_messages_v1.2.1.yaml	- Added error code SEC0002 for invalid participant name



CRR – JSON Schema Update

Schema Name	Changes
CRRHistoricalForecastLoad_v1.0.2.draft- 07.schema	- Corrected time in date example to '2025-07-01T07:00:00Z'



CRR MUI CSV Templates, API Connectivity Guidance

Developer Site https://developer.caiso.com

Apps > CRR > Release Notes

(1) CRR v4.x.x MUI Upload CSV Template for MP DRAFT.zip CSV Template for MP draft

CRRH Only	CLSE/CRRH	CUDC	TOR	CEC
 CRR bids/Offers Secondary market 	 CRR nominations CRR bids/Offers Historical and forecasted load Secondary market LT Nomination Election MT_TOR CRR Approvals 	 Customer rate (once a year) Customer number DASR 	TOR Conversion Request	Load data - no change



CRR MUI CSV Templates, API Connectivity Guidance

Developer Site https://developer.caiso.com

Apps > CRR > Release Notes

(2) CRR v4.x.x API Connectivity.zip

CRR_APIConnectivitySoapUI_v1.0.xml: SoapUI project

CRRv4.x.x.APIConnectivity.pdf: Contains information about the API testing tool (SoapUI) request and responses for CRR B2B API connectivity testing purposes

Purpose

This document is an accompaniment to the CRR v4.x.x. Application Programming Interface (API) connectivity/sample SoapUI project <CRR_APIConnectivitySoapUI_v1.0.xml>; which is comprised of a subset of CRR endpoints' screenshots, illustrating its respective request and response.

Market participants may utilize the provided SoapUI project to confirm initial integration with the CRR application via APIs manually, such that: API submissions can successfully connect to CRR endpoints and servers, with a valid return response code Verifying that the API authenticates and authorizes user to access the CRR application

Pre-requisites/Dependencies

Market participants who would utilize the SoapUI project would need:

SoapUI 5.7.2, to import the project

Valid ISO certificate and correct user access role provisioned

To execute the API requests within the same network as where your system API calls would be coming from

API Connectivity Checklist

The provided SoapUI project contains one POST and/or GET method sample for each of the ten (10) RESTful CRR v4.x.x services available. Please refer to the ISO Developer Portal CRR application page for the comprehensive/complete endpoint service definitions per API.

CRR Service Endpoint Details

#	Service	GET	POST	Likelihood that file submission may be greater than > 1 MB filesize	CRR System (UI / API)
1	CRR Historical & Forecasted Load	x	x	Yes	Phase 1: Use UI for submission for now, no API available Phase 2: API submission pattern - TBD
2	CRR Auction	х	х	Yes	Maximum 500 recs for any file submission to the system 20 bid segments per bid (business rule)
3	CRR Load Migration	x	х	No	-
4	CRR Nomination	Х	Х	Yes	Maximum 500 recs for any file submission to the system
5	CRR Secondary Market	х	X	No	Maximum 500 recs for any file submission to the system



CRR Service Endpoint Details

#	Service	GET	POST	Potential submission for >1mb filesize	Comments	
1	CRR App Status	Х				
2	CRR Market Data	x	n /a	n/a	Only ratriage data no submission	
3	CRR Market Status	x	n/a	n/a	nya Only retrieve data, no submission	Only retrieve data, no submission
4	CRR Messages	х				



RECAP: 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_CongestionRightsRevenueUpgrade.pdf
- The goal of this CPG is to ensure customer readiness as this project deploys to Production in 2024.



RECAP: 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

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 NDAfiles
- 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



Market Sim - Overview

- Market participant training will complete prior to last week of connectivity, and one week before start of Market Sim
- 4 weeks connectivity
 - Week two CAISO will provide ability for allocation and auction API upload
 - No functionality will be available to test until the start of Market Sim
- 3 week structured scenario execution
- 2 week unstructured
- CAISO will request all interested CRR market participants sign up to participate in Market Sim
- All current user profiles will be migrated into Map-stage for Market Sim, new participants will need to request to be provisioned



RECAP: CRR Upgrade Project- Overview of changes cont.

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 offerallowed
- 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 – SOAP vs REST

SOAP

REST

POST /GetStock HTTP/1.1 Host: www.example.org Content-Type: application/soap+xml

<?xml version="1.0"?>
<soap:Envelope
xmlns:soap="http://www.w3.org/2001/12/soapenvelope"
soap:encodingStyle="http://www.w3.org/
2001/12/soap-encoding">

<soap:Body xmlns:m="http://www.example.org/ stock"> <m:GetStockPrice> <m:StockName>IBM</m:StockName> </m:GetStockPrice> </soap:Body> </soap:Envelope> GET http://example.org/stock/IBM

- SOAP (Simple Object Access Protocol) provides the following advantages when compared to REST:
 - Language, platform, and transport independent (REST requires use of HTTP)
 - Works well in distributed enterprise environments (REST assumes direct point-to-point communication)
 - Standardized
 - Provides significant pre-build extensibility in the form of the WS* standards
 - Built-in error handling
 - Automation when used with certain language products
- REST (Representational State Transfer) is easier to use for the most part and is more flexible. It has the following advantages when compared to SOAP:
 - Uses easy to understand standards like swagger and OpenAPI Specification 3.0
 - Smaller learning curve
 - Efficient (SOAP uses XML for all messages, REST mostly uses smaller message formats like JSON)
 - Fast (no extensive processing required)
 - Closer to other Web technologies in design philosophy
 - As one REST API tutorial put it: SOAP is like an envelope while REST is just a postcard

https://www.soapui.org/learn/api/soap-vs-rest-api/



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CAISO B2B Improvements – CRR Developer Forum

https://developer.caiso.com/pages/application.aspx?app=CRR

Q Search RESTful service	s			Filter	*
SERVICE	SPECIFICATION	DOCUMENTATION	STATUS	RELEASE	EFFE
CRR Auction	crr_auction_1.0.0.yaml	crr_auction_1.0.0.html	NA	NA	NA
CRR Historical and Forecasted Load	crr_historical_and_forecasted_load_1.0.0.yaml	crr_historical_and_forecasted_load_1.0.0.html	NA	NA	NA
CRR Market Data	crr_market_data_1.0.0.yaml	crr_market_data_1.0.0.html	NA	NA	NA
CRR Market Status	crr_market_status_v1.0.0.yaml	crr_market_status_v1.0.0.html	NA	NA	NA
CRR Message	crr_message_1.0.0.yaml	crr_message_1.0.0.html	NA	NA	NA
CRR Nomination	crr_nomination_1.0.0.yaml	crr_nomination_1.0.0.html	NA	NA.	NA.
CRR Secondary Market	crr_secondary_market_1.0.0.yaml	crr_secondary_market_1.0.0.html	• PROD_LATEST	Spring 2020	NA
	crr_secondary_market_0.0.0.yaml	crr_secondary_market_0.0.0.html	MAP_STAGE	DRAFT	NA
CRR Tor Conversion	crr_tor_conversion_1.0.0.yaml	crr_tor_conversion_1.0.0.html	NA	NA	NA.



CAISO CRR API Mock Services

https://mapstage-apimock.caiso.com/mocks?appname=crr

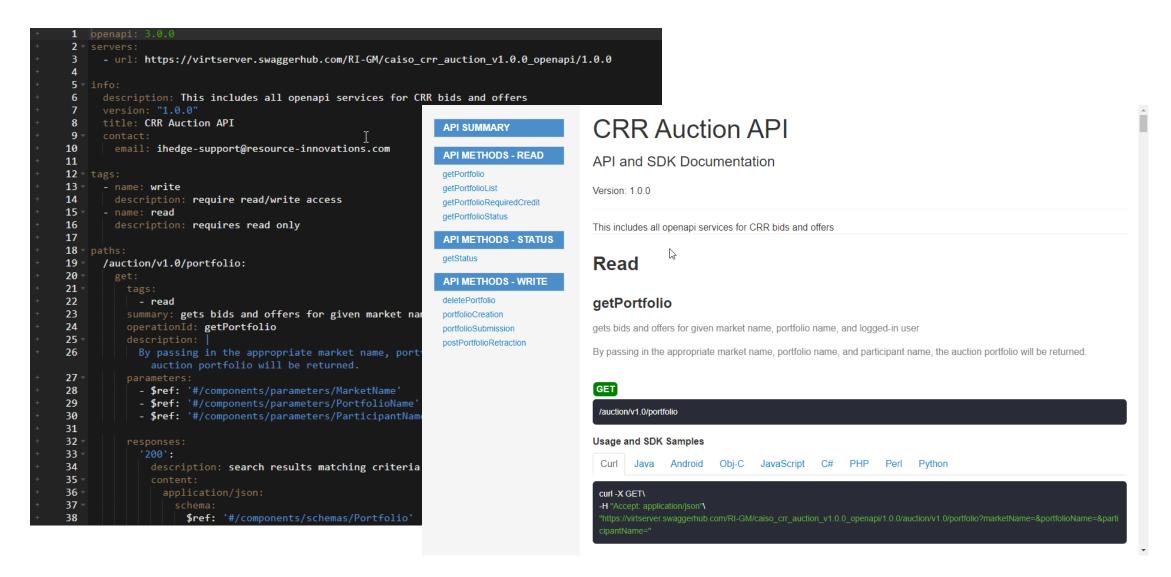


Specifications:

- mock caiso crr auction v1.0.0.html
- · mock caiso crr historical and forecasted load v1.0.0.html
- mock caiso crr market data v1.0.0.html
- mock caiso crr market status v1.0.0.html
- mock caiso crr message v1.0.0.html
- mock caiso crr nomination v1.0.0.html
- mock_caiso_crr_secondary_market_v1.0.0.html
- mock caiso crr tor conversion v1.0.0.html



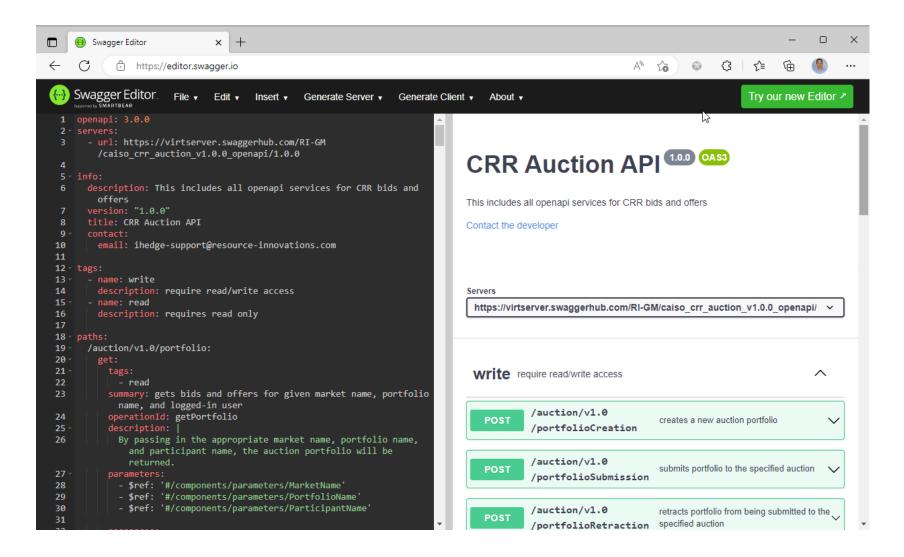
CAISO B2B Improvements – Example: CRR Auction API





CAISO B2B Improvements – Free Swagger Editor Tool

https://editor.swagger.io/





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



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: MAJOR.MINOR.MINI

MAJOR version of the file name will be incremented if there are any newservices 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 Release Notes

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



Cutover Plan and other links

Cutover Plan: https://www.caiso.com/documents/2025-monthly-and-2026-annual-allocation-and-auction-calendar-revised.pdf

Business Requirements Specifications v1.7 - Congestion Revenue Rights System Upgrade

Web Posting Changes: https://www.caiso.com/documents/congestion-revenue-rights-system-upgrade-changes-to-web-posting.pdf



V0 release

CRR system	Current CRR system	New CRR system
Network Model posting location	CRR_FNM Website	CRR MUI restricted/public download and CRR_FNM Website
Network model file	Monthly Market: MN_xxx_YYYY_T1_DBxxx_V0.zip	Monthly Market: MN_YYYY_Mxx_V0
name	Annual Market: AN_YYYY_T1_DBxxx_V0.zip	Annual Market: AN_YYYY_V0
	APSSExxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	MUI> Downloads> Restricted> Network Model
	MPDATA_Contingency_ MN_xxx_YYYY_T1_DBxxx _V0.xlsx	MUI> Downloads> Restricted> Contingencies
	MPDATA_Contingency_GDF_ MN_xxx_YYYY_T1_DBxxx _V0.xlsx	MUI> Downloads> Restricted> Generator Distribution Factor
MUI restricted	MPDATA_Generation_PMAX_ MN_xxx_YYYY_T1_DBxxx _V0.xlsx	MUI> Downloads> Restricted> Resources
download	MPDATA_Interface_Definitions_ MN_xxx_YYYY_T1_DBxxx _V0.xlsx	MUI> Downloads> Restricted> Interfaces
download	MPDATA_Interface_Limits_ MN_xxx_YYYY_T1_DBxxx _V0.xlsx	Wiot> Downloads> Nestricted> Interfaces
	MPDATA_Monitored_Facilities_ MN_xxx_YYYY_T1_DBxxx _V0.xlsx	MUI> Downloads> Restricted> Lines and Transformers
	MPDATA_TH_to_GEN_Mapping_ MN_xxx_YYYY_T1_DBxxxV0.xlsx	MUI> Downloads> Restricted> Trading Hub
		MUI> Downloads> Restricted> Outages (New)
MUI public download	MPDATA_Apnode_Mapping_MN_xxx_YYYY_T1_DBxxx_V0.xlsx	MUI> Public> Market> Sources and Sinks
wioi public dowilload	MPDATA_TOR_ETC_ MN_xxx_YYYY_T1_DBxxx _V0.xlsx	MUI> Public> General> Existing CRRs
FNM Website	MPDATA_Supplemental_Branch_Data_ MN_xxx_YYYY_T1_DBxxx _V0.xlsx	MPP> CRR_FNM> RDFID-PSLF mapping*

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^{*}The CRR team is sun setting this report, date TBD



V1 and V2 Release

CRR system	Current CRR system	New CRR system
Network Model posting location	CRR_FNM Website	CRR MUI restricted/public download
Network model file name	Monthly Market: MN_xxx_YYYY_T1_DBxxx_V1.zip and MN_xxx_YYYY_T1_DBxxx_V2.zip Annual Market: AN_YYYY_DBxxx_V1.zip and AN_YYYY_DBxxx_V2.zip	Monthly Market: ALLOC MN YYYY Mxx ETC, ALLOC MN YYYY Mxx T1, ALLOC MN YYYYY Mxx T2 and AUC MN YYYYY Mxx Annual Market: AN YYYY V1, ALLOC AN YYYY ETC, ALLOC AN YYYY T1, ALLOC AN YYYY LT, ALLOC AN YYYY T2, ALLOC AN YYYY T3 and AUC AN YYYY
	MPDATA_Outage_ MN_xxx_YYYY_T1_DBxxx _V1.xlsx (V1)	MUI> Downloads> Restricted> Outages
	APSSExxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	MUI> Downloads> Restricted> Network Model
MUI restricted download	MPDATA_Limit_Expansion_ MN_xxx_YYYY_T1_DBxxx _V2.xlsx	MUI> Downloads> Restricted> Lines and Transformers MUI> Downloads> Restricted> Interfaces
	MPDATA_Interface_Definitions_ MN_xxx_YYYY_T1_DBxxx _V2.xlsx	MUI> Downloads> Restricted> Interfaces
	MPDATA_Interface_Limits_ MN_xxx_YYYY_T1_DBxxx _V2.xlsx	WIOI> DOWINIOdus> Nestricteu> IIIterraces
	MPDATA_Monitored_Facilities_ MN_xxx_YYYY_T1_DBxxx _V2.xlsx	MUI> Downloads> Restricted> Lines and Transformers
MUI public download	MPDATA_Fixed_CRRs_ MN_xxx_YYYY_T1_DBxxx _V2.xlsx	MUI> Public> General> Existing CRRs



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V3 Release

CRR system	Current CRR system	New CRR system	
Network Model	CDD FNIM Wobsite	CDD MIII public dovunteed	
posting location	CRR_FNM Website	CRR MUI public download	
Network model file	Monthly Market: MN_xxx_YYYY_T1_DBxxx_V3.zip	Monthly Market: ALLOC_MN_YYYY_Mxx_T2	
name	Annual Market: AN_YYYY_DBxxx_V3.zip	Annual Market: ALLOC_AN_YYYY_T3	
MUI public download	MPDATA_Interface_Limits_MN_xxx_yyyy_T2_SetAside_DBxxx_V3.xlsx	MUI> Public> Market> Set Aside	



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