



California ISO

# Technology User Group (TUG)

May 14 2019

10:00 – 11:00 AM Pacific

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# TUG Agenda

Web Conference Information		Conference Call Information	
<i>URL</i>	<a href="https://caiso.webex.com/meet/CAISO-TUG">https://caiso.webex.com/meet/CAISO-TUG</a>	<i>Domestic Call-In</i>	(866) 528-2256
<i>Meeting Number</i>	966 010 353	<i>International Call-In</i>	(216) 706-7052
<i>Access Code</i>	389 588 9	<i>Access Code</i>	389 588 9

Topic	Facilitator
Agenda and Roll Call	Indu Nambiar
System Interface Changes	Trang Deluca
OASIS Updates	Neela Alla / Arul Jayaraman
CMRI Improvements	Neela Alla / Arul Jayaraman

# System Interface Changes: CMRI

Release	Project	Change Type	Customer Impact	Customer Action	UI Change	API Service Name & Major Version	MAP Stage	Production Activation	Technical Specifications	Artifacts
Spring 2019	CCE3	New	CAISO Market	Adopt when ready	Tab: Default Bids  New Report: Actual Limitation Values	RetrieveActualLimitationValues_CMRIv1  RetrieveActualLimitationValues_CMRIv1_DocAttach	Sep 2018	April 1, 2019*  *Data available April 22 for May 2018 thru April 2019	<a href="#">3.8.2</a>	<a href="#">1.1</a>
Spring 2019	CCE3	New	CAISO Market	Adopt when ready	Tab: Default Bids  New Report: Resource Opportunity Costs	RetrieveResourceOpportunityCost_CMRIv1  RetrieveResourceOpportunityCost_CMRIv1_DocAttach	Sep 2018	April 1, 2019*  *Data available April 30 for May 2019	<a href="#">3.8.2</a>	<a href="#">1.1</a>
2019	RCSI	New	RC	Adopt when ready	New Tab: Reliability Coordination  New Report: Load Forecast	RetrieveRCLoadForecast_CMRI_v1  RetrieveRCLoadForecast_CMRI_v1_DocAttach	Feb 1, 2019	Jul 1, 2019	<a href="#">1.0.0</a>	<a href="#">1.1.0</a>

# System Interface Changes: OMS

Release	Project	Change Type	API Service Name & Major Version	MAP Stage	Production Activation	Technical Specifications	Artifacts
2019	RCSI	Modify*  <i>*While the CAISO supports two major versions of API, the CAISO strongly recommends moving to the latest one (v3)</i>	RetrieveAvailabilityResults_OMSv2 RetrieveAvailabilityResults_OMSv2_DocAttach  RetrieveResourceOutage_OMSv3 RetrieveResourceOutage_OMSv3_DocAttach  RetrieveResourceOutageChangeRequest_OMSv3 RetrieveResourceOutageChangeRequest_OMSv3_DocAttach  RetrieveTransmissionOutage_OMSv3 RetrieveTransmissionOutage_OMSv3_DocAttach  RetrieveTransmissionOutageChangeRequest_OMSv3 RetrieveTransmissionOutageChangeRequest_OMSv3_DocAttach  SubmitResourceOutage_OMSv3 SubmitResourceOutage_OMSv3_DocAttach  SubmitResourceOutageChangeRequest_OMSv3 SubmitResourceOutageChangeRequest_OMSv3_DocAttach  SubmitTransmissionOutage_OMSv3 SubmitTransmissionOutage_OMSv3_DocAttach  SubmitTransmissionOutageChangeRequest_OMSv3 SubmitTransmissionOutageChangeRequest_OMSv3_DocAttach	Feb 28, 2019	Jul 1, 2019	<a href="#">2.0</a>	<a href="#">Artifacts</a>

# System Interface Changes: ALFS, RCBSAP, RCEIDE, STLMT

System	Release	Project	Change Type	API Service Name & Major Version	MAP Stage	Production Activation	Technical Specifications	Artifacts
ALFS	2019	RCSI	New	SubmitExternalEntity5MinLoadForecast_ALFSv1 SubmitExternalEntity5MinLoadForecast_ALFSv1_DocAttach  SubmitExternalEntity15MinLoadForecast_ALFSv1 SubmitExternalEntity15MinLoadForecast_ALFSv1_DocAttach  SubmitExternalEntity60MinLoadForecast_ALFSv1 SubmitExternalEntity60MinLoadForecast_ALFSv1_DocAttach	Feb 1, 2019	Jul 1, 2019	<a href="#">1.0.0</a>	<a href="#">Artifacts</a>
RCBSAP	2019	RCSI	New	RetrieveRCBaseScheduleResults_RCBSAPv1 RetrieveRCBaseScheduleResults_RCBSAPv1_DocAttach  SubmitRCBaseSchedule_RCBSAPv1 SubmitRCBaseSchedule_RCBSAPv1_DocAttach	Feb 1, 2019	Jul 1, 2019	<a href="#">1.1</a>	<a href="#">Artifacts</a>
RCEIDE	2019	RCSI	New	PutSchedule_RC	Feb 1, 2019	Jul 1, 2019	<a href="#">1.0</a>	<a href="#">Artifacts</a>
STLMT	2019	RCSI	New	SubmitNetEnergyData_STLMTv1 SubmitNetEnergyData_STLMTv1_DocAttach  *For RC Customers outside of the CAISO BA to submit Net Energy for Load and Net Generation	May 2019	TBD	<a href="#">1.0</a>	<a href="#">1.0</a>

# Fall 2019 Release – System Interface Changes

## (Preliminary)

System	Project	Change Type	Description	MAP Stage	Production Activation	Technical Specifications	Artifacts
CMRI	CCDEBE1	New	participant to retrieve final default commitment cost	Sep 3, 2019	Nov 13, 2019	May 17, 2019 <a href="https://developer.caiso.com/">https://developer.caiso.com/</a>	
CMRI	CCDEBE1	Modify	participant to retrieve default bid curve at hourly level and include DEB source (cost type/ exante process)				
CMRI	LMPME	Modify	DefaultBidCurves_v1 XSD change to remove enumeration from XSD				
CMRI	EIM 2019	Modify	include base schedule deviation in the balancing test results XSD				
DRRS	ESDER3A	New	DRRegistrationData				
MF	ESDER3A	Modify	GeneratorRDT_v4 XSD for additional bid dispatchable option for PDR				
MF	LMPME	Modify	GeneratorRDT_v4 XSD change to add default/alternate bilateral hub, max horizon cap value, and new DEB type				
SIBR	CCDEBE1	New	participant to submit exante bid and commitment				
SIBR	CCDEBE1	New	participant to retrieve submitted exante bid and commitment				
SIBR	CCDEBE1	New	participant to retrieve final exante bid and commitment				

# References

- This document
  - <http://www.caiso.com/Documents/SystemInterfaceChangeSummary.pdf>
- Developer Site
  - <https://developer.caiso.com/>
  - Requires sign-up for access
  - Fall 2019 Release Technical Specifications will be published here
- Application Access
  - <http://www.caiso.com/participate/Pages/ApplicationAccess/Default.aspx>



# OASIS Production Data Retrieval Issues

Functional variance for Groupzip files starting 2/19/2019 that resulted in market participants being unable to retrieve complete price information.

- Issues encountered:
  - Corrupt files
  - Partial files
  - Empty files
  - Missing Intervals
    - Root cause was identified and a patch was applied on 4/18. These issues should not occur for trade dates 4/19 and going forward.
  - Files >300MB
    - Root cause has been identified and a patch was applied on 5/8. This issues should not occur for trade dates 5/9 and going forward.
- We have been regenerating the files reported via CIDI tickets and making the data available within 3 business days.
- If this message is returned: “<m:ERR\_DESC> GroupZip DownLoad is in Processing, Please Submit request after Sometime</m:ERR\_DESC>”, the API file generation process has initiated, and the users must retry the request to retrieve the completely generated file at a later time.
- With these changes, there is NO impact to any of the existing reports data or functionality.
- CAISO requests to use the latest supported version as mentioned in the Tech Specs for application programming interfaces (API)

REF: [http://www.aiso.com/Documents/OASIS-InterfaceSpecification\\_v5\\_1\\_7Clean\\_Independent2019Release.pdf](http://www.aiso.com/Documents/OASIS-InterfaceSpecification_v5_1_7Clean_Independent2019Release.pdf)

Coming soon....

## CAISO Interface Specification template changes

- Standardization
- Efficient
- Lean

Proposed changes include:

- Document release notes with service level change details
- Links to sample XML
- Simplified element table to remove redundant information
- Section for service specific use model





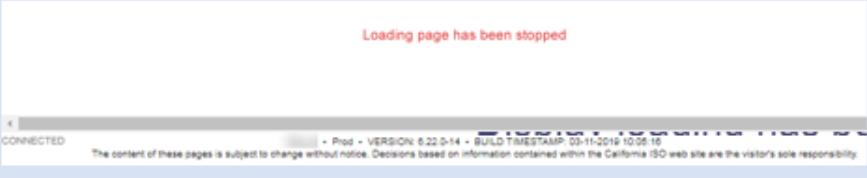



Please send suggestions to [inambiar@caiso.com](mailto:inambiar@caiso.com)

# Ongoing Initiatives

# CMRI Improvements

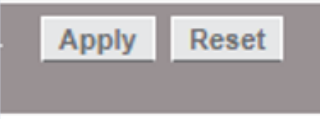

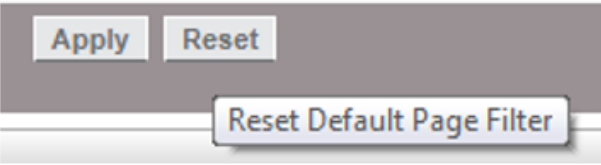
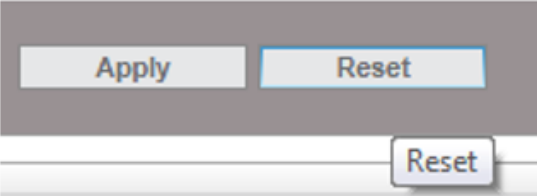
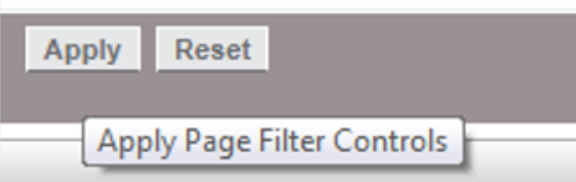
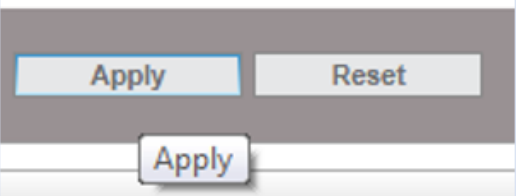
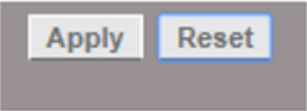

CAISO is planning CMRI UI Upgrade & Performance Improvements

- Graphical User-Interface update v7.0.0
  - Look-and-Feel: Text color, command buttons, icons, drop-down
  - Similar to OASIS changes currently in Production

	Existing	New Release
Page Header:	<b>Blue line</b> 	<b>No Blue line</b> 
Hover-over App header icons:	<b>Icon: Blue Highlight</b> 	<b>Icon: Yellow/Black Pointer</b> 
Stop Loading:	<b>“Display loading has been stopped. Click here to refresh” does not appear</b> 	<b>“Display loading has been stopped. Click here to refresh” appears at the bottom of the page</b> 
Report Name:	<b>Black Font</b> 	<b>Dark Grey Font</b> 

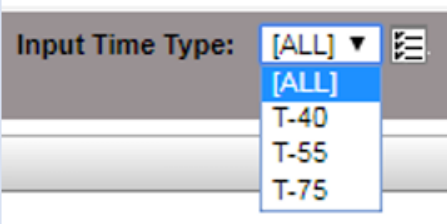
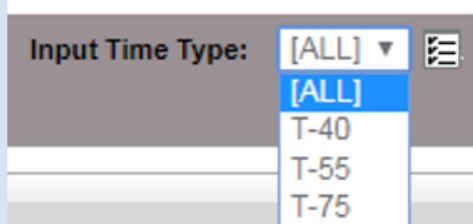
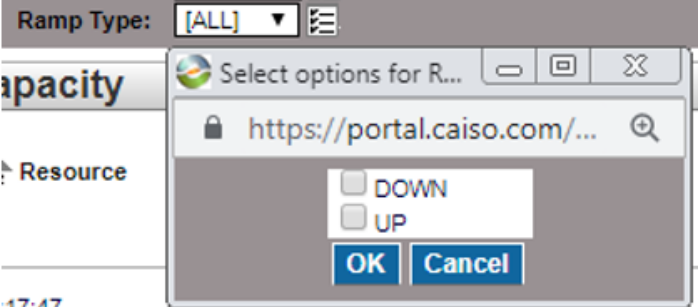
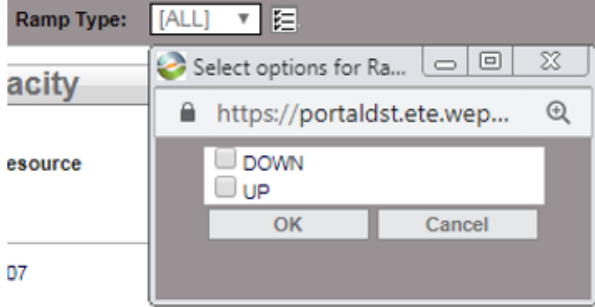
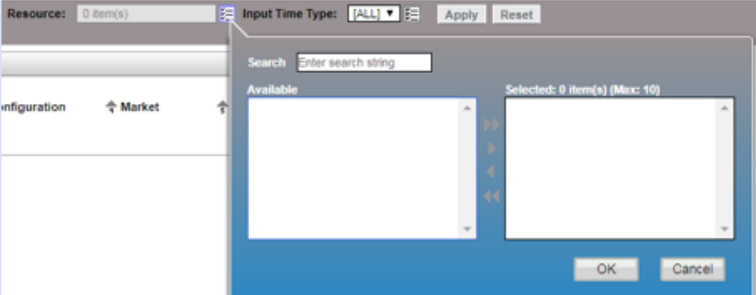
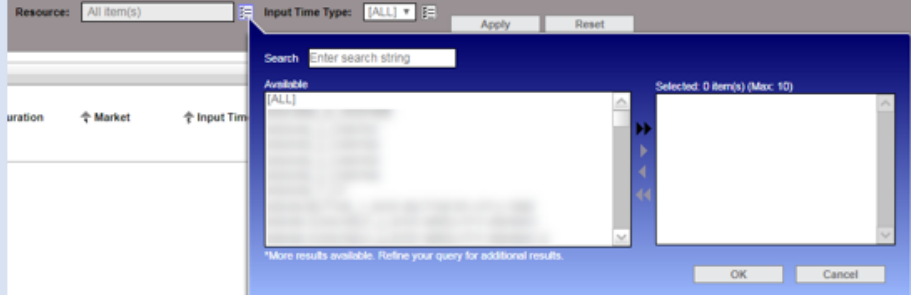
# CMRI Improvements

- Graphical User-Interface update v7.0.0

Buttons:	<b>Aligned: Top</b> 	<b>Aligned: Center</b> 
Hover-over:	<b>Tool Tip: Reset Default Page Filter</b> 	<b>Tool Tip: Reset</b> 
Hover-over:	<b>Tool Tip: Apply Page Filter Controls</b> 	<b>Tool Tip: Apply</b> 
Click:	<b>Border: Blue Line</b> 	<b>Border: Dotted Line</b> 

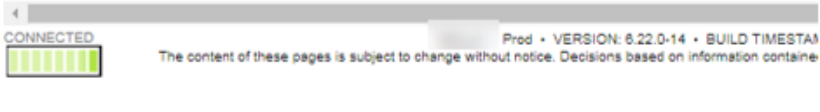
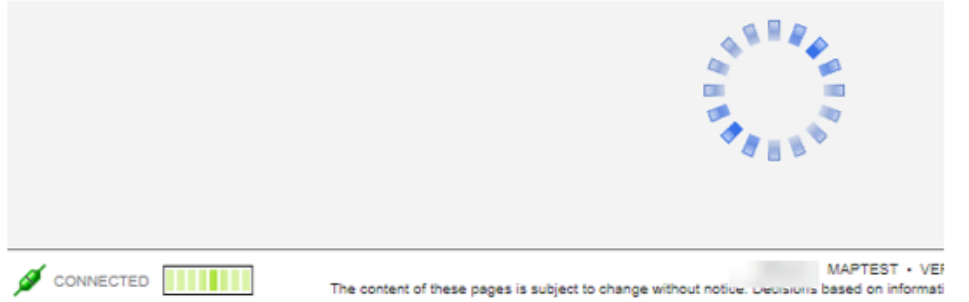
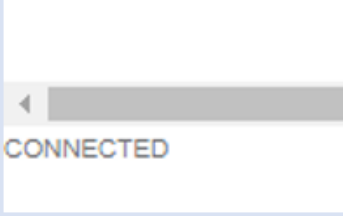


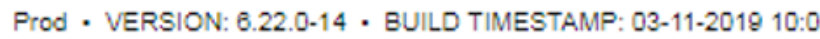
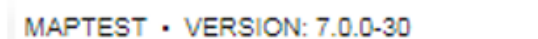
# CMRI Improvements

- Graphical User-Interface update v7.0.0

<p>Drop-down list of values:</p>	<p>Black Font</p> 	<p>Dark Grey Font</p> 
<p>Multi select:</p>	<p>Blue Buttons with White Font</p> 	<p>Grey buttons with Black Font</p> 
<p>Dynamic multi select:</p>	<p>No list of values by default; Gradient grey-to-blue background</p> 	<p>List of values appear by default; Gradient navy blue-to-blue background</p> 

# CMRI Improvements

## – Graphical User-Interface update v7.0.0

Processing:	<p>No page loading animation</p> 	<p>Page loading animation</p> 
Scroll bar:	<p>Scroll bar comes up on page load</p> 	<p>Scroll bar does not come up on page load</p>  <p>Scroll bar comes up when needed</p> 
Build Timestamp:	<p>Displayed in Application Footer</p> 	<p>No longer Available</p> 
Data	Copy Paste	No Copy Paste

# CMRI Improvements

CAISO is planning CMRI UI Upgrade & Performance Improvements

- Performance Improvements
  - Technology/Infrastructure Upgrade
  - Data Model Normalization
    - Due to data model normalization there will be data migration effort from old model to new model.
    - Data migration process is being tested in Non-Production environment. Current Plan:
      - » Complete the data migration and cut over to new UI and performance improvements.
      - » After cutover, users will have access to all the data.
      - » ISO will communicate CMRI performance improvements patch deployment time line.
- Market Participant Testing prior to Production deployment.
- NO API interface changes and NO functionality changes.
- CAISO requests to use the latest supported version as mentioned in the Tech Specs for application programming interfaces (API)

REF: [http://www.caiso.com/Documents/CMRI-InterfaceSpecification\\_v3\\_8\\_3Clean\\_Independent2019Release.pdf](http://www.caiso.com/Documents/CMRI-InterfaceSpecification_v3_8_3Clean_Independent2019Release.pdf)



# Standardization of time format for data submissions & data requests

- ISO is implementing the use of standard date time format for all B2B data submissions
- Current formats that are accepted:
  - 2019-07-10T00:00:00-07:00 – offset of 7 hours based on Pacific Daylight Time
  - 2019-01-20T00:00:00-08:00 – offset of 8 hours based on Pacific Standard Time
  - 2019-01-20T08:00:00-00:00 – Timestamp in GMT/UTC
  - 2019-07-10T07:00:00Z – Timestamp in GMT/UTC
- Future acceptable formats (to match the response from ISO):
  - 2019-04-20T07:00:00-00:00 – Timestamp in GMT/UTC
  - 2019-04-20T07:00:00Z – Timestamp in GMT/UTC
  - OR
  - 2019-12-20T08:00:00-00:00 – Timestamp in GMT/UTC
  - 2019-12-20T08:00:00Z – Timestamp in GMT/UTC
- Implementation Plan
  - Technical Specifications Updated with accepted format - Fall 2019 Release
  - Enforcement of new format - **Fall 2020 Release**

# Next TUG: May 28, 2019

Contact for Questions & Agenda Requests: Indu Nambiar, [inambiar@caiso.com](mailto:inambiar@caiso.com)

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