

Technology User Group (TUG)

October 15, 2019 10:00 – 11:00 AM Pacific

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TUG Agenda

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

Topic	Facilitator			
Agenda and Roll Call	Indu Nambiar			
SIBR & BSAP Updates	Wendell Tamblyn			
System Interface Changes	Trang Deluca			
CMRI Improvements	Neela Alla			
Ongoing Initiatives	Indu Nambiar			



SIBR and BSAP Update

- Tech Spec for SIBR has been updated with version 13.2.
- Updated the definition for the X-axis variable for the ExAnte startup cost to be the Cooling time in minutes instead of MW.
- Tech Spec for BSAP has been updated with verstion 1.7.2
- Updated element table to show use of optional elements for BalancingTestResults matching the xsd.
- imbalanceAmount Difference between the hourly load forecast minus the aggregagate base schedule
- imbalanceDirection Indicates whether aggregate base schedule is over or less than hourly load forecast (UNDER/OVER)
- imbalancePercentage
 Percentage of the imbalance



System Interface Changes: MF

Release	Project	Change Type	API Service Name & Major Version, Artifacts	Minor Version	RDT	MAP Stage	Production Activation	Technical Specifications
Fall 2019	ESDER3A LMPME CCEDEBE1	Modify	RetrieveGeneratorRDT_MFRDv4_DocAttach	20191001		Sep 5, 2019	Oct 29, 2019	<u>5.1</u>
Fall 2019	ESDER3A LMPME	Modify	SubmitGeneratorRDT_MFRDv4 SubmitGeneratorRDT_MFRDv4_DocAttach	20191001	GRDT v13.0	Sep 5, 2019	Oct 29, 2019	<u>5.1</u>



System Interface Changes: SIBR, BSAP

System	Release	Project	Change Type	API Service Name & Major Version, Artifacts	MAP Stage	Production Activation	Technical Specifications
SIBR	Fall 2019	CCDEBE1	Modify	RetrieveCleanBidSet_SIBRv5_DocAttach	Oct 14, 2019	Dec 4, 2019	<u>v13.1</u>
SIBR	Fall 2019	CCDEBE1	Modify	RetrieveCurrentBidResults SIBRv5 DocAttach	Oct 14, 2019	Dec 4, 2019	<u>v13.1</u>
SIBR	Fall 2019	CCDEBE1	Modify	SubmitRawBidSet_SIBRv5_DocAttach	Oct 14, 2019	Dec 4, 2019	<u>v13.1</u>
BSAP	Fall 2019	EIM 2019	Modify	RetrieveBalancingTestResults BSAPv2 RetrieveBalancingTestResults BSAPv2 DocAttach	Oct 14, 2019	Nov 13, 2019	1.7.1



System Interface Changes: CMRI

Release	Project	Change Type	Customer Impact	UI Change	API Service Name & Major Version, Artifacts	MAP Stage	Production Activation	Technical Specifications
Fall 2019	LMPME CCDEBE1	Modify	CAISO Market	Tab: Default Bids Existing Report: Default Energy Bid Curves	RetrieveDefaultBidCurves_CMRIv2_DocAttach	Sep 12, 2019	Nov 13, 2019	<u>3.9.1</u>
Fall 2019	CCDEBE1	Modify	CAISO Market	Tab: Default Bids Existing Report: Default Commitment Costs	RetrieveExternalDefaultCommitmentCost_CMRIv1 RetrieveExternalDefaultCommitmentCost_CMRIv1_DocAtt ach	Oct 28, 2019	Dec 4, 2019	<u>3.9.1</u>
Fall 2019	EIM 2019	New	EIM	Tab: Energy Imbalance Market New Report: Resource Operating Limits	RetrieveEIMResourceOperatingLimit CMRIv1 RetrieveEIMResourceOperatingLimit CMRIv1 DocAttach	Oct 3, 2019	Nov 13, 2019	<u>3.9.1</u>
Fall 2019	EIM 2019	New	CAISO Market	Tab: Real-Time New Report: Resource Operating Limits	RetrieveResourceOperatingLimit_CMRIv1 RetrieveResourceOperatingLimit_CMRIv1_DocAttach	Oct 3, 2019	Nov 13, 2019	<u>3.9.1</u>



System Interface Changes: OASIS

Release	Project	Change Type	Customer Impact	UI Change	API Service Name & Major Version, Artifacts	MAP Stage	Production Activation	Technical Specifications
Fall 2019	EIM 2019	New		Tab: ENERGY New Report: Transmission Loss	ENE TRANS LOSS	Oct 7, 2019	Nov 13, 2019	<u>5.1.9</u>



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CMRI Improvements – In Production September 30, 2019

CAISO is planning CMRI UI Upgrade & Performance Improvements

- Performance Improvements
 - Technology/Infrastructure Upgrade
 - Data Model Normalization
 - Data migration needed due to data model normalization for schedules and schedule prices.
 - Data migration process has been verified in Non-Production environment.
- Market Participant Testing prior to Production deployment.
 - UI is available for testing in MAP Stage environment as of June 6, 2019
 - API is available for testing in MAP Stage environment as of June 26 2019
- Data migration and cut over to new UI and performance improvements in Production, was complete on September 30, 2019.
 - A few market participants reported 2 issues with API Standard Output Response Files.
 - Issue 1: Response file with data

Actual:

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"><SOAP-ENV:Header><attachmentHash xmlns="http://www.caiso.com/mrtu/soa/schemas/2005/09/attachmenthash" SOAP-ENV:Header><attachmentHash xmlns="http://schemas.xmlsoap.org/soap/actor/next" SOAP-ENV:mustUnderstand="0"><hashValue>N35jKNsL93LEpaoZqwmXnkFBk0M=</hashValue></attachmentHash><standardAttachmentInfor xmlns="http://www.caiso.com/soa/2006-06-

13/StandardAttachmentInfor.xsd"><Attachment><id>13/StandardAttachmentInfor.xsd"><Attachment><id>13/StandardAttachmentInfor.xsd"><Attachment><id>13/StandardAttachmentInfor.xsd"><Attachment></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></soaP-ENV:Body></

Expected:

<<u>SOAP-ENV:Envelope</u> xmlns:SOAP-ENV="<SOAP-ENV:Header><a trachmentHash xmlns="http://schemas.xmlsoap.org/soap/actor/next SOAP-ENV:mustUnderstand="0"><hashValue>N35jKNsL93LEpaoZqwmXnkFBk0M=</hashValue></attachmentHash>< standardAttachmentInfor xmlns="http://www.caiso.com/soa/2006-06-

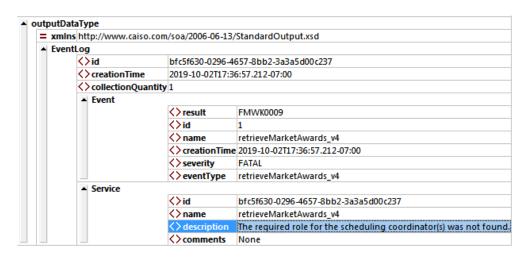
13/StandardAttachmentInfor.xsd"><Attachment><id>1</id><compressFlag>yes</compressFlag><compressMethod>gzip</compressMethod></Attachment></standardAttachmentInfor></SOAP-ENV:Header><SOAP-ENV:Body><retrieveMarketAwards_v4Response xmlns="http://www.caiso.com/soa/retrieveMarketAwards_v4"><retrieveMarketAwards_attachment href="cid:txid-c623e04d-6522-4813-b9dc-f4fcc113f53e"/></retrieveMarketAwards_v4></SOAP-ENV:Body></SOAP-ENV:Envelope>



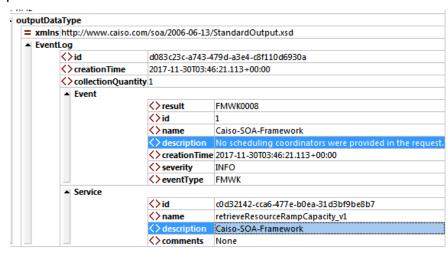
CMRI Improvements – In Production September 30, 2019

Issue 2: Response file with error message

Actual



Expected



- The issues was resolved with a patch deployed to Production on October 2, 2019.
- All issues, if any, will be resolved through the standard CIDI Process. This slide will not be presented from the next TUG.
- 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)
- Please refer to latest tech specs on https://developer.caiso.com

CMRI UI changes expected as part of this effort were presented in the TUG call on May 14, 2019 and Oct 17, 2019 and can be found at:

http://www.caiso.com/Documents/Agenda-TechnicalUserGroupWebConference-May14_2019.pdf

http://www.caiso.com/Documents/Agenda-TechnicalUserGroupWebConferenceSep172019.pdf



OASIS Production Data Retrieval Issues

Functional variance for Group zip files were reported as market participants were unable to retrieve complete price information. Issues encountered:

- RTM_LMP_GRP, RTD_SPTIE_LMP_GRP and RTPD_SPTIE_LMP_GRP Missing intervals for HE24 for Multiple Trade Dates
- RTM_LMP_GRP, DAM_LMP_GRP and DAM_SPTIE_LMP_GRP Combining all Price Types into one Response file Resolution:
- Root cause was identified and we are working on a patch.
- As a part of this patch,
 - The "enddatetime" is ignored if the query is to pull "ALL" or "ALL_APNODES" nodes; ie query will return only 1 hours' worth of data for all nodes at a time based on the "startdatetime" supplied
 - The "enddatetime" is referenced only when a node is supplied in the query
- We are testing the patch in Non-Production environments and plan to apply the patch in Production next week.

Reminders:

- If this message is returned: "<m:ERR_DESC> GroupZipDownLoadis 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.
- 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/OASIS-InterfaceSpecification_v5_1_7Clean_Independent2019Release.pdf



Ongoing Initiatives



CRR Revenue Adjustments report to be removed from CMRI

Background:

- January 2019 deployed <u>CRR Revenue Adjustments report</u>
- March 2019 deployed <u>CRR Revenue Adjustments Details report</u>
 - The Details report contains all the data the Summarized report and is provided for each CRR at a unique source and sink location
 - The Details report has data back to January 2019

CAISO will remove CRR Revenue Adjustments report effective with the 2019 Fall Release activation

- CMRI tech specs were updated 7/19/2019
- BPMs update is forthcoming



Fall 2019 - Technical Specification Updates

The technical specification updates for all applications that are impacted for Fall 2019 are detailed in the agenda for the TUG call on May 28, 2019 and can be found at:

http://www.caiso.com/Documents/Agenda-TechnicalUserGroupWebConferenceMay282019.pdf



Revised Technical Specification Template

CAISO Technical Specification template changes

- Standardization
- Efficient
- Lean

Proposed changes include:

- Document release notes with service level change details
- Sample XMLs posted outside the document
- Simplified element table to remove redundant information
- Section for service specific use model
- Consolidated list of service artifacts for supported versions

Revised template is available at:

http://www.caiso.com/Documents/TechnicalSpecification-Template-TechnicalUserGroup.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: Oct 29, 2019

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