

Technical User Group (TUG)

May 12, 2020 10:00 – 11:00 AM Pacific 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 publically 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.



TUG Agenda

| Web Conference Information | | | Conference Call Information | | | |
|--------------------------------------|-----------------------------------|-----------------|-----------------------------|----------------|--|--|
| URL | https://caiso.webex.com/meet/CAIS | SO-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 | | |
| Торіс | | Facilita | ator | | | |
| Agenda and Roll Call | | | Indu Nambiar | | | |
| TUG Agenda Pos | sting Update | Indu Nambiar | | | | |
| System Interface Changes | | | Trang Vo | | | |
| ADS Replaceme | nt | Akm Ferdous | | | | |
| DRRS – Updated Tech Spec | | Ibrahim Alatoum | | | | |
| CAISO's B2B Integration Improvements | | | Ajay Mannepalli | | | |
| Ongoing Initiative | es | Indu Na | du Nambiar | | | |



TUG Agenda Posting Update

- As recommended by our Information Security department, we are moving our more technical information behind a password protected site to protect against nefarious actors.
- Over time, all technical information will be posted to the developer site rather on the public site.
- Going forward, only the agenda will be published on caiso.com with a link to the full presentation
- The full presentation will be available on the Developer site
- Video recording will also be made available only on the Developer site
- Existing agenda and recordings on caiso.com will not be impacted



Fall 2020 Release - System Interface Changes - CCDEBE1

| SIBR | | | | | | | |
|---------|-------------|---|------------|------------------------------------|--------------------------|--|--|
| Project | Change Type | API Service Name & Major Version, Artifacts | MAP Stage | Production | Technical Specifications | | |
| CCDEBE1 | Modify | RetrieveCleanBidSet_SIBRv5_AP | ✓ 10/16/19 | Deploy 3/26/20 | 13.2 | | |
| CCDEBEI | would | RetrieveCleanBidSet_SIBRv5_DocAttach_AP | 10/10/19 | Activation 10/1/20 | 15.2 | | |
| | Madifi | RetrieveCurrentBidResults_SIBRv5_AP | 10/10/100 | Deploy 3/26/20 | 12.2 | | |
| CCDEBE1 | Modify | RetrieveCurrentBidResults_SIBRv5_DocAttach_AP | ✓ 10/16/19 | Activation 10/1/20 | 13.2 | | |
| | | SubmitRawBidSet_SIBRv5_AP | 10/10/10 | Deploy 3/26/20 | 12.2 | | |
| CCDEBE1 | | SubmitRawBidSet_SIBRv5_DocAttach_AP | ✓ 10/16/19 | Activation 10/1/20 | 13.2 | | |

| CMRI | MRI | | | | | | | | |
|------------------|----------------|--------------------------|--|--|---|-----------------------------|--|--|--|
| Project | Change Type | UI | API Service Name & Major Version, Artifacts | MAP Stage | Production | Technical Specifications | | | |
| LMPME CCDEBE1 | Modify | EVICTING RONORT' DOTALIT | RetrieveDefaultBidCurves_CMRIv2_AP RetrieveDefaultBidCurves_CMRIv2_DocAttach_AP | LMPME ✓ 9/12/19 CCDEBE1 ✓ 11/6/19 | LMPME LMPME L1/13/19 CCDEBE1 Deploy 3/26/20 Activation 10/1/20 | 3.9.4 Release Notes 1.2 | | | |
| CCDEBE1 | | Existing Report: Detault | RetrieveExternalDefaultCommitmentCost_CMRIv1_AP RetrieveExternalDefaultCommitmentCost_CMRIv1_DocAttach_AP | ✓ 11/11/19 | Deploy 3/26/20 Activation 10/1/20 | 3.9.4 Release Notes 1.2 | | | |

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Fall 2020 Release - System Interface Changes

| ADS | | | | | |
|--------------------|----------------|--|-----------------------------|-----------|------------|
| Project | Change Type | Summary | Technical Specifications | MAP Stage | Production |
| ADS Replacement | Modify | v7: Instructions to include Unannounced AS Test information | 5/29/20 | 7/27/20 | 10/1/20 |
| DOTTC | | There will be additional ADS changes that will be added here | 5725720 | 1121120 | 10/1/20 |

| DRRS | | | | | |
|---------|----------------|---|-----------------------------|-----------|----------------|
| Project | Change Type | Summary | Technical Specifications | MAP Stage | Production |
| ESDER3B | | RequestDRRegistrationData.xsd DRRegistrationData.xsd | ✓ 5/1/20, v3.2 | 7/27/20 | Deploy 9/14/20 |
| ESDER3B | New | Alternate API to only retrieve incremental data changes (Locations, Registrations) | ✓ 5/1/20, v3.2 | 7/27/20 | Deploy 9/14/20 |
| ESDER3B | | Retrieval of the complete location approval process workflow details (LSE & UDC) | ✓ 5/1/20, v3.2 | 7/27/20 | Deploy 9/14/20 |
| ESDER3B | | Retrieval of location records that are under the defense process | ✓ 5/1/20, v3.2 | 7/27/20 | Deploy 9/14/20 |
| ESDER3B | | Retrieval of the location defense process workflow details (Incumbent & Prospective DRPs) | ✓ 5/1/20, v3.2 | 7/27/20 | Deploy 9/14/20 |

| MRI-S | | | | | |
|-------------|----------------|--|-----------------------------|-----------|-------------------|
| Project | Change Type | Summary | Technical Specifications | MAP Stage | Production |
| EBTMP | | For: - MRIS Meter: Submit Meter & - MRIS Meter: Retrieve Meter additionally include EBtMP measurement type values (as negative load) both Gross Load and EBtMP meter data would associate with same Load Resource ID | 5/29/20 | 7/27/20 | Activation 1/1/21 |
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Fall 2020 Release - System Interface Changes

| Master File | | | | |
|-------------|---|-----------------------------|-----------|------------|
| Project | Summary | Technical Specifications | MAP Stage | Production |
| ESDER3B | Add enumeration to GRDT: DR_TYPE of PDR_LSR | 5/29/20 | 7/27/20 | 10/1/20 |
| FERC841 RA | New GRDT attribute: Apply Wholesale Charge | 5/29/20 | 7/27/20 | 10/1/20 |
| EIM2020 | New GRDT attribute: Meter Data Interval | 5/29/20 | 7/27/20 | 10/1/20 |
| Other | Remove from GRDT: MIN_DISP_LEVEL | 5/29/20 | 7/27/20 | 10/1/20 |
| CCE Tariff | New GRDT attribute: Run of River | 5/29/20 | 7/27/20 | 10/1/20 |
| Slow DR | New GRDT attribute: Slow DR | 5/29/20 | 7/27/20 | 10/1/20 |

| CMRI | | | | |
|---------|--|-----------------------------|-----------|------------|
| Project | Summary | Technical Specifications | MAP Stage | Production |
| | Available Balance Capacity Infeasibility Report Load Bias Report | 5/29/20 | 7/27/20 | 10/1/20 |

| OASIS | | | | |
|---------|------------------------------------|-----------------------------|-----------|-------------------|
| Project | Summary | Technical Specifications | MAP Stage | Production |
| EBTMP | New OASIS EBtMP Performance Report | 5/29/20 | 7/27/20 | Activation 1/1/21 |



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ADS Replacement Update – ADS Query Tool Changes

- Key notes for ADS Query Tool changes are:
 - XML export option will not available
 - Excel export option will be supported
 - Query tool data will be limited to 30 days (not 39 months)
- Some of the data set you would query from ADS Query tool is also available in the following CMRI Reports:
 - RTD Schedules, FMM Schedules & HASP Schedules.
- If you need additional ADS query tool data beyond 30 days, that is not in the CMRI reports, you must plan to download and accumulate data on your end.



DRRS – Updated Technical Specification

- New Tech Spec has been standardized across all CAISO apps
- New Tech Spec is more concise, easy to use and locate information
- New Tech Spec should be used along with XSD for Element description
- Service examples have been removed and uploaded to CAISO Developer site
- Most recent changes are at the top of every section impacted
- Updated Tech Spec Version 3.2 can be found at:

Clean –

https://developer.caiso.com/Artifacts/DRRS/TechSpecs/DRRS%20Interfac e%20Specification%20v3.2.pdf

Redline –

https://developer.caiso.com/Artifacts/DRRS/TechSpecs/DRRS%20Interfac e%20Specification%20v3.2%20REDLINE.pdf

• With the Fall 2020 release, v1 & v2 API services will be supported

CAISO B2B Improvements

• 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 and/or SOAPUI projects
- Collaboration using Git and forums on developer.caiso.com
- Simplify authentication using X.509 certificates and API keys

Update

- POC updates and webinar notes are posted on developer forum at <u>https://developer.caiso.com/forum/topics.aspx?ForumID=4</u>. Next webinar will be on 5/19/2020.
- The CMRI SchedulePrices OpenAPI spec file at https://git.caliso.org/CAISO/api-specs/src/branch/master/openapi/cmri-api.yaml has been updated
- Mutual TLS with client certificates will remain the authentication model for the B2B POC
- Evaluate adding updateSinceDateTime query parameter across all services (similar to MRI-S and WebOMS)
- CAISO will internally discuss API versioning, pagination logic and authentication options for the WebAPI's and present the proposal during the next webinar
- The CA, server and client certificates for POC at available in api-specs git repository
- Mock service for SchedulePrices is available externally
- Validation of OpenAPI generator client stub code in Java and .NET is underway, and OpenAPI spec will be adjusted accordingly



Ongoing Initiatives



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Version Management for OASIS & CMRI

- The Plan ahead
 - Version Management
 - Enforce the policy to support only two versions of services
 - Technical Specification will indicate supported and deprecated versions
 - Revised Technical Specification will be available on <u>5/29/2020</u>
 - Deprecated versions will be decommissioned on <u>9/1/2020</u>
 - Identifying patterns to embed information related to events resulting in failed market intervals within API and UI



Next TUG: May 26, 2020

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