Market Simulation Call - Fall 2020 Release & Independent 2020 Releases

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September 24, 2020

Recordings

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Agenda

- MAP Stage Availability
- Known Issues – ADS
- ADS Update on Changes for FMM AS/EN
- ADS Replacement Transition Updates
- ADS Replacement – Cutover Activities At a Glance
- Independent 2020 Release Communication Plan
- Market Simulation Issue Management
- ISO Market Simulation Support
- Structured Scenario Registration Details
- Independent 2020 Releases Market Simulation Initiatives & Timelines
- Initiatives
  - Aliso Canyon Phase 5
  - FRP Improvements - Buffer and Min
  - Energy Imbalance Market (EIM) Enhancements 2020
  - Hybrid Resources - Phase 1
  - Commitment Costs and Default Energy Bid Enhancements Phase 1
  - Nodal Pricing Model
  - Intertie Deviation Settlement
  - Symmetrical Wheeling
  - Settlements Q4/Winter Release
- Next Steps

Fall 2020 Release MAP Stage Availability

- Refer to MAP Stage portal https://portalmap.caiso.com for system availability information

- Current MAP Stage Maintenance
  - None

- Upcoming MAP Stage & Stage Maintenance
  - **MAP STAGE**
    - Thursday 9/24 - Friday 9/25: Market/BAAOP - brief interruptions
    - Thursday 9/24 - Friday 9/25: SIBR/BSAP UI/API - brief interruptions
    - Friday 9/25: ADS UI/API closure, system will be unavailable
    - *Tentative within 9/24-10/2 window:* CMRI UI/API closure, system will be unavailable
  - **STAGE**
    - Monday 9/28: ADS UI/API - brief interruptions

- MAP Stage Weekly Maintenance Window
  - Friday

Known Issues - ADS

#	System	Summary	Status	Estimated Fix Date
1	ADS	Few Participants are not able to share & load the Profile/Template	Fixed	9/28
2	ADS	ADS Query Tool Dead Space on the bottom when lots of data available to show	Fixed	9/28
3	ADS	Pop up and audible alarm settings not being saved with profile	Fixed	9/28
4	ADS	~~Ability~~ Support to share/port over the profiles across environment	Will help manually porting over one profile per user upon request. Please submit CIDI ticket with the details (Profile Name, User ID & Environment To & From)	N/A
5				
6		Continuous Alarm Change to repeat every x seconds (recommend 5 seconds)	Postponed/Roadmap	TBD
7		Column Picker should sort list of checkboxes alphabetically	Postponed/Roadmap	TBD
8		Column Selector availability intermittent.	Please retest based on our recent network changes	N/A

ADS: Update on Changes for FMM AS/EN

- Based on several feedback we planned to make some changes for 'FMM AS/EN' from Interval Grid and how it's filter the data when user click on 'Filter Resource' checkbox. Summary is given below:

  - <u>Proposed change:</u>
    - Renamed the 'FMM AS/EN' as 'FMM AS'
    - Checkbox must filter only the operating reserve (Non-zero SR, NR, RU & RD).

  - <u>Notes:</u>
    - For FMM AS, keep processing and displaying all productType (SR, NR, RU, RD, FRU, FRD, LFU, LFD as applicable) for
      - Visual alert (pop-up/dialogue) – FMM AS
      - Visual alert (Flashing) – No change
      - Audio alert - No Change
    - For FMM Energy, keep processing and displaying productType (EN)
      - Visual alert (pop-up/dialogue) – FMM Energy
      - Visual alert (Flashing) – **No Flashing**
      - Audio alert - No Change

    - The audio alert for **FMM energy** will still be able to be configured for no alarm, 1 time, or continuous
    - Batch types will remain two separate (batchType = 11 for 'FMM Energy', batchType = 3 for 'FMM AS' ('RT AS') also known as 'AS Awards')
    - The message will show as own message in message history.
    - API remains same (FMM energy dispatches & intertie bid type available)

- **<u>Update:</u> This ADSUI changes is completed and will be ready on MKT-SIM on 9/28.**

ADS Replacement Transition

- October 1st production deployment is pending ISO's quality review board decision
- Attend 9/29 TUG for details
- What to expect:
  - Backward compatible: Delphi client and V6 APIs
  - Target time is between 9-11 AM PDT
  - Planning for minimal downtime (10 min); the user interface will disconnect and automatically reconnect
  - Data will be retained as it is today
- Customers are asked to join a bridge during the deployment
- Parallel Operations will be extended to 10/16 in Stage

ADS Replacement Transition

- ISO Operations will start using the new client and will keep the Delphi client available if needed

- Enhancements that require different Operator actions under the new client will be disabled until everyone has transitioned to the new client. During this time, existing procedures will be utilized. These include:
    - DOTT
    - Unannounced AS TEST
    - RTCD Commitment

- These enhancements will continue to be tested in in MAPStage.

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ADS Replacement – Cutover Activities At a Glance

Milestone Date	Activity	MAPStage	Stage	Production
7/27/2020	New Code Available	New ADS UI ADS API V8	-	-
7/27/2020	Hard Cut-Over	ADS API V6	-	-
09/01/2020	New Code Available	-	New ADS UI ADS API V8	-
09/01/2020	Hard Cut-Over	-	ADS API V6	-
09/04/2020	Milestone	End Market Sim	-	-
~~09/30/2020~~	~~Milestone~~	-	~~End Parallel Operations~~	-
10/1/2020	New Code Available	-	-	New ADS UI ADS API V8 Production Go-Live
~~10/1/2020~~	~~Hard Cut-Over~~	-	-	~~ADS API V6~~
10/16/2020	Milestone	-	End Parallel Operations	
11/04/2020	Hard Cut-Over	Current ADS Delphi Client	Current ADS Delphi Client	-
02/01/2021	Hard Cut-Over	-	-	Current ADS Delphi Client ADS API V6

Independent 2020 Releases

Independent 2020 Releases Communication Plan

- ## Schedule

Monday	Thursday
Sep 28, Oct 5,12,19, 26 Nov 2, 9	Oct 1,8,15, 22, 29 Nov 5, 12

- ## Connection Information
  - **Web Conference Information**
    - Web Address: https://caiso.webex.com/meet/MarketSim
    - Meeting Number: 962 067 710
    - Audio connection instructions will be available after connecting to the web conference. When prompted, select "Call me" and enter the phone number you will use during the call. You will be called by the conference shortly.

  - **Conference Call Information**
    - Dial-in Number: 866-528-2256
    - International Dial-in: 216-706-7052
    - Access Code: 202 249 0

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Market Simulation Issue Management

- Submit all issues to the CIDI case management system
- CIDI tickets must have "**Functional Environment**" = "**Market Simulation Independent 2020**" to be reviewed by ISO SMEs

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ISO Market Simulation Support

- **Hours:** Monday thru Friday 0900-1800 PDT
- **ISO's 24x7 Service Desk:** (916) 351-2309 (Connectivity – UI or API)
  - Issues called in after hours will be worked on during the next business day
- **Email:** MarketSim@caiso.com

Structured Scenario Registration Details

MP's will need to register their request with the ISO to participate in this simulation via the MarketSim@caiso.com mailbox.

Date of registration Sept 29, 2020.

We will do our best to accommodate for late registration

Independent 2020 Releases Market Simulation Initiatives & Timelines

Independent 2020 Release Initiatives	Start Date	Start Date (Trade Date)	End Date	Structured Simulation Start (Trade Date)
Independent 2020 Release Market Simulation				
Aliso Canyon Phase 5	9/29/20		10/14/20	
FRP Improvements - Buffer and Min	9/29/20		10/14/20	
Energy Imbalance Market (EIM) Enhancements 2020	10/5/20		10/21/20	
Hybrid Resources - Phase 1	10/26/20		11/13/20	
Commitment Costs and Default Energy Bid Enhancements Phase 1	7/27/20		11/24/20	
Nodal Pricing Model	10/6/20		11/13/20	10/27/20
Intertie Deviation Settlement	10/6/20		11/13/20	
Symmetrical Wheeling	10/6/20		11/13/20	
Settlements Q4/Winter Release	10/13/20		11/13/20	

Aliso Canyon Phase 5

- **Timeline:** September 29 – October 14

Business Requirements Specification -
http://www.caiso.com/Documents/BusinessRequirementsSpecification-AlisoCanyonPhase5.pdf

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FRP Improvements - Buffer and Min

- **Timeline:** September 29 – October 14

Structured Scenarios document -
http://www.caiso.com/Documents/MarketSimulationScenarios-FRPImprovementsBufferandMin.pdf

Energy Imbalance Market (EIM) Enhancements 2020

- **Timeline:** October 5 – October 21

Unstructured Scenarios document -
http://www.caiso.com/Documents/MarketSimulationScenarios
EnergyImbalanceMarket2020Enhancements.pdf

Hybrid Resources - Phase 1

- **Timeline:** October 26 – November 13

Business Requirements Specification - http://www.caiso.com/Documents/BusinessRequirementsSpecification-HybridResourcesPhase1.pdf

Commitment Costs and Default Energy Bid Enhancements

- **Timeline:** July 27 – November 24

- Training - http://www.caiso.com/Documents/Presentation-CommitmentCosts-DefaultEnergyBidEnhancements.pdf

Nodal Pricing Model

- **Timeline:** October 6 – November 13
- **Structured:** October 27

Structured Scenarios document -
http://www.caiso.com/Documents/NPM_structured_mktsim-Reviewed.pdf

Intertie Deviation Settlement

- **Timeline:** October 6 – November 13

Structured Scenarios document -
http://www.caiso.com/Documents/MarketSimulationScenarios
IntertieDeviationSettlement.pdf

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Symmetrical Wheeling

- **Timeline:** October 6 – November 13

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Settlements Q4/Winter Release

Release Milestones as follows:

- 1st draft technical documentation posted = 8/10
    - Posted IDS and Day Ahead Nodal (NPM project)
- 1st draft configuration output file + initial release component summary to post = 8/25
    - Will include current project scope -> IDS, Day Ahead Nodal & Symmetrical Wheeling
    - Also 1st draft tech doc for Symmetrical Wheeling
- 2nd draft configuration output file + 2nd draft tech docs + updated release component summary posted = 9/14
    - Includes 2 dispute related production adjustments:
        - RTM Net Amount PC for RMR capacity payment
        - Spin Non-Spin No Pay Quantity PC for fast start units
- 3rd draft configuration output file (pre market sim) to post = 10/2
- MAP-Stage deployment - 10/6
- Connectivity for PAC 10/13 - 10/21
- Structured scenarios 10/27 - 11/4

Winter 2020 settlements release draft settlements technical documentation:
http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=EF90CE68-D8D0-43F7-8052-04FBE1D0825B

Next Steps

- The next teleconference is scheduled on Monday, September 28 at 1400 PDT

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Reference Slides

Automated Dispatch System (ADS) replacement

- **Timeline:** July 27 – September 04
- **Structured:** August 11 (Completed)
  - Rerun on 8/18 per Market Participant Request - Complete

Structured Scenarios document - http://www.caiso.com/Documents/MarketSimulationScenarios-ADSReplacement.pdf

Training -

- http://www.caiso.com/Documents/AutomatedDispatchSystemReplacementPart1.pdf
- http://www.caiso.com/Documents/AutomatedDispatchSystemReplacementPart2.pdf

ADS Replacement – Cutover Activities at a Glance

Even for use of existing ADS API URL and version (v7), you may need to whitelist the new ADS API IPs as access to the v7 will redirect to the new IPs.

	MAP-STAGE	STAGE	PRODUCTION
API Existing URL	https://adsmap.caiso.com:447/	https://adsstage.caiso.com:447	https://ads.caiso.com:447/
API Existing IPs	12.200.60.164	12.200.60.237 12.200.60.238	12.200.60.98 12.200.60.99 12.231.58.98 12.231.58.99
API New Additional IPs	**45.42.17.165** **45.42.23.165**	**45.42.17.51 - correction** **45.42.23.51 - correction**	**45.42.16.51** **45.42.22.51**
UI Existing URL	https://adsmap.caiso.com:447/	https://adsstage.caiso.com:447	https://ads.caiso.com:447/
UI Existing IP	12.200.60.164	12.200.60.237 12.200.60.238	12.200.60.98 12.200.60.99 12,231.58.98 12.231.58.99
UI New Additional URL	https://ads.map.caiso.com/	https://ads.stage.caiso.com/	https://ads.prod.caiso.com/
UI New Additional IP	45.42.17.130 45.42.23.130	45.42.17.16 45.42.23.16	45.42.16.16 45.42.22.16

ADS SSL Cipher Settings with ADS Cutover

As discussed on 9/15 TUG:

- **New SSL cipher settings will be enforced with for ADS with ADS cutovers in MAP-Stage, Stage, and Production**
- **No change in TLS version - TLS will remain 1.2**
- **We encourage customers to transition to the new SSL cipher settings as early as possible to avoid impacts when the new settings become enforced for ADS**
- In MAP-Stage and Stage
  - *On **11/4/20** old ADS will no longer be available, and participants will need to have the new SSL cipher settings to continue using new ADS UI and any ADS API (including v7)*
- In Production
  - When new ADS is available 10/1, we will not enforce the new SSL cipher settings
  - *On **2/1/21** old ADS will no longer be available, and participants will need to have the new SSL cipher settings to continue using new ADS UI and any ADS API (including v7)*

ADS SSL Cipher Settings with ADS Cutover - continued

- Here is the list of the ciphers being accepted today, in comparison to the reduced list that will be enforced with the ADS cutover:

Currently Supported TLS 1.2 ciphers	Future Supported TLS 1.2 ciphers to be enforced 11/4 in MAP-STAGE/STAGE and 2/1 in PRODUCTION
TLS_DHE_RSA_WITH_AES_128_CBC_SHA TLS_DHE_RSA_WITH_AES_128_CBC_SHA256 TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 TLS_DHE_RSA_WITH_AES_256_CBC_SHA TLS_DHE_RSA_WITH_AES_256_CBC_SHA256 TLS_DHE_RSA_WITH_AES_256_GCM_SHA384 TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 TLS_RSA_WITH_AES_128_CBC_SHA TLS_RSA_WITH_AES_128_CBC_SHA256 TLS_RSA_WITH_AES_128_GCM_SHA256 TLS_RSA_WITH_AES_256_CBC_SHA TLS_RSA_WITH_AES_256_CBC_SHA256 TLS_RSA_WITH_AES_256_GCM_SHA384	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384

ADS dependencies for DOTTC, IDS functionality

- New functionality includes
  - Follow DOT Flag
  - Operating instructions
  - Un announced AS TEST
  - RTCD Commitment
  - Receive Operating instruction flag for EIRs
  - Broadcast message to EIRs operator
  - Display the HASP schedule, the scheduling coordinator accepted value, and the difference between the two

- During parallel operation Data for new functionalities (such as Follow DOT Flag, Operating instructions, Un announced AS TEST, RTCD Commitment) will not be available as we will stream production data to parallel environment.

- For those new functionalities data will be available in MAPStage.

Trouble-shooting tips to access ADS

- Check your firewall settings.

- Clear the browser cache & cookies.

- Pop-up blockers on your browser may lead to issues accessing CAISO ADS.

- If you use a pop-up blocker, you must whitelist the CAISO domain (caiso.com)