Automated Dispatch System (ADS) Replacement Training Webinar Part 2

Gina Wansor

Sr. Client Trainer, Customer Readiness

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Introduction: what is ADS? Let's review!

- Automated Dispatch System (ADS) User Interface (UI) is used to view market dispatch instructions provided by the Real Time Market
- Currently, ADS can be used to view:
  - View Dispatch instructions
    - Dispatch Operating Targets (DOTs)
    - Commitment Instructions (Startups/Shutdowns/Transitions)
    - Ancillary Services
  - Critical ISO messages
  - Historical data

Previously, in ADS Replacement Part 1 Training:

- New ADS User Interface/WebSDK version
  - Look & Feel
  - What changed in what you do in the current UI vs. new UI
- [Business Requirements Specification 1.0](#) (BRS 1.0)
  - Covered some changes which will be applied in the new ADS user interface (UI) as part of the ADS Replacement Project
  - BRS Section 6.8 Manage ADS Messages
    - Querying Messages & new enhanced visibility
    - Query tool in the new UI
  - BRS Section 6.9 Manage Access to ADS Data
    - Data retention (this has also been covered in ADS CPG)
  - BRS 6.10 Manage Enhanced Access Controls
    - Access using Access Control Lists (ACL) in AIM (covered in overview on June 1)
    - Touch base with your UAA to ensure correct access for each phase

Reviewing grids

Today's training:

- Review the planned timeline

- Become familiar with changes being implemented in Fall 2020 and in preparation for Market Simulation

  – **Market Simulation starts July 27, 2020**

  – **Market Sim kickoff call is July 23, 2020**

- Cover changes which will be applied in the new ADS user interface (UI) and/or the v8 API/webservice as part of the ADS Replacement Project

  – [Business Requirements Specification 1.0](#) (BRS 1.0)
  – BRS Section 6.2 Manage Flex Ramp modifications (SC impacts)
  – BRS Section 6.3 Manage NSPIN Economic Dispatch
  – BRS Section 6.4 Manage Unannounced A/S Test Instructions
  – BRS Section 6.5 Manage Exceptional Dispatch (ED) Instructions
  – BRS Section 6.6 Manage DOT & SUPP Values
  – BRS Section 6.7 Manage DOT Value Acceptance/Variation

Note: Operating Instruction and Follow DOT flag per Dispatch Operating Target Tariff Clarification project will be covered in the training following this session

ADS Replacement

TRANSITION TIMELINE

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ADS Replacement Phases - new UI and API v8 release

Market Simulation

- July 27-September 4, 2020
- MAPStage Environment with Structured Scenarios
- *Note: MAPStage Environment will remain available until Nov 4*

Parallel Operations

- September 1 - September 30
- Stage Environment, streaming Production data
- *Note: Stage Environment will remain available until Nov 4*

Production Go-Live!

- October 1
- Production Environment
- *Note: Current (old) ADS will remain avail until Feb 1 (decommissioned on Feb 1)*

For more information on the transition, refer to ADS CPG from July 9, 2020
www.caiso.com >> Stay Informed >> Meetings >> Customer Partnership Group >> ADS 7/9/2020

Cutover activities at a glance by date and environment

Date	Activity	MAPStage Environment	Stage Environment	Production Environment
7/27/2020	New Code Available	New ADS UI ADS API V8 Begin Market Sim	-	-
7/27/2020	Hard Cut-Over *Decommissioning	ADS API V6	-	-
09/01/2020	New Code Available	-	New ADS UI ADS API V8 Begin Parallel Operations	-
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 *Decommissioning	-	-	ADS API V6
11/04/2020	Hard Cut-Over *Decommissioning	Current ADS Delphi Client	Current ADS Delphi Client	-
02/01/2021	Hard Cut-Over *Decommissioning	-	-	Current ADS Delphi Client

ADS Replacement

OVERVIEW OF CHANGES

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Flex Ramp Modifications (6.2)

- Display **Real Time Dispatch (RTD)** and **Fifteen Minute Market (FMM)** binding Flex Ramp Up and Flex Ramp Down (FRU & FRD) awards in the Resource Data Grid
    - Generator resources
    - Tie Generator resources

If you registered for Market Sim participation, validate viewing this data as part of structured scenario
Data supported in new ADS UI & ADS v8 API

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FMM Energy Dispatches (6.2)

- Display FMM Energy Dispatches (Schedules) and the Bid Type in 15 minute displays
  - 15-min Intertie Resources
- Additional Alarm/Pop up Notification added
- This data will be published to ADS from the Real Time Market

If you registered for Market Sim participation, validate viewing this data as part of structured scenario
Data supported in new ADS UI & ADS v8 API

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Manage NSPIN Economic Dispatch(6.3)

- CAISO BA market functionality
  - Real Time Contingency Dispatch (RTCD): mode of the Real-Time Dispatch that will be invoked when a transmission or generation Contingency occurs and will include all Contingency Only Operating Reserves in the optimization [BPM Definitions & Acronyms]
    - Non-spin, Spin Reserves
  - Currently, during the use of the RTCD mode, if non-spin (NSPIN) is included, all NSPIN qualified resources with NSPIN awards are flagged in

Describe the new non-spin RTCD functionality. (6.3)

- Market functionality
  - New: RTCD shall run economic optimization for NSPIN (NSPIN qualified resources which are offline and with NSPIN awards)
    - Additionally, economic dispatch for resource capacity which is included in an energy bid will be included in optimization
  - Market will immediately broadcast Startups for resources which are committed and ADS will process and display the start up instructions through the Commitment Batch type
- ADS UI does not have direct visible impact (columns or grids)
- No impact to EIM entities

Unannounced Ancillary Service (A/S) Testing (6.4)

- Initiating unannounced ancillary service testing for **CAISO BA resources** in the market ("ASTEST" instruction)

- Applicable for resources with SPIN and NSPIN awards
  - Currently, the process you may be familiar with is part of the Resource Performance Verification procedures OP 5370 (www.caiso.com >> rules >> Operating Procedures)

- Does not impact EIM, but the columns will be visible to them

  - In the resource data grid, these can be unchecked to remove from view

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Unannounced Ancillary Service (A/S) Testing (6.4)

- Initiating unannounced ancillary service testing for CAISO BA resources in the market ("ASTEST" instruction)
- Applicable for resources with SPIN and NSPIN awards
- Details
  - New Batch Type "ASTEST"
  - Including alarm, pop up message
  - New columns in resource data grid
  - Received by SC with designated resource

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Other ADS changes (not part of current ADS application)

- Managing Exceptional Dispatch (6.5)
  - Duplicate ED entries removed

- Manage DOT & SUPP Values (6.6)
  - Previous Supp and RT Supp Delta

- Manage DOT Value Acceptance/Variation (6.7)
  - Previous Accept DOT to account any manual intervention from interchange scheduler
  - For example, if HASP Award = 20 MW and at T-50 SC calls with request to accept the award at 8 MW (partial the award at 8 MW). In the next HASP run the previous accept DOT = 8 MW.

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Operating Instructions with the DOTT Clarification project for resources within CAISO BA

- Operating Instruction changes (Dispatch Operating Target Tariff Clarification) – *in the training following this*
  - *New **columns** in Batch Grid, Resource Data Grid*
  - *New Batch Type = Flashing + Alarm + Notification [CAISO BAA resources only]*
- Does not impact EIM, but the columns will be visible to them
  - In the resource data grid, these can be unchecked to remove from view

Configuration for Audio Alarm & Notification updated with new enhancements

New Batch Grid with changes

Batch Grid Changes:
- Flex Ramp add to RT DOT column
- FMM AS/EN
- Operating Instruction Column
- AS Test

Logging into the new ADS UI

- Login using the recommended and supported browsers: **Chrome** and **Edge with Chromium**
  - Not in scope to support Internet Explorer

- Will be accessible from the **Market Participant Portal (MPP)**

- **Certificate based login**
  - One (1) active session is allowed per user/certificate/environment combination
  - User Access Administrator at your organization provisions access
  - If your certificate is expiring soon, ensure to renew per normal process

General troubleshooting steps during Login

Checking with your UAA
- Not able to get in or get access denied error?
- Not seeing the correct SCID/resources?
- Certificate expired?

Calling the CAISO Service Desk
- Don't know who your UAA is?
- Disconnecting, unable to reconnect? System appears to be unavailable? Should also check for any MNS notifications

Clearing cache and restarting your browser
- Opening a new ADS session and receive notification that a session is already established?
- Not seeing a change or new feature after patch implementation & release note provided?

Check browser and settings
- Pop up display expected? Check settings allow for this
- Display not showing correctly? Check which browser you are in

Application pop-up notifications outside of the application itself

- In the new ADS UI, it is possible to receive a notification outside of the application

- There is a pop up notification which can be configured for ADS in Windows (think like the Outlook pop-ups)

  – To enable, the user will need to explicitly **allow the ADS application to send Windows notifications** by allowing permissions upon login for notifications from ADS when prompted

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Example: Enabling in Chrome when launching the application
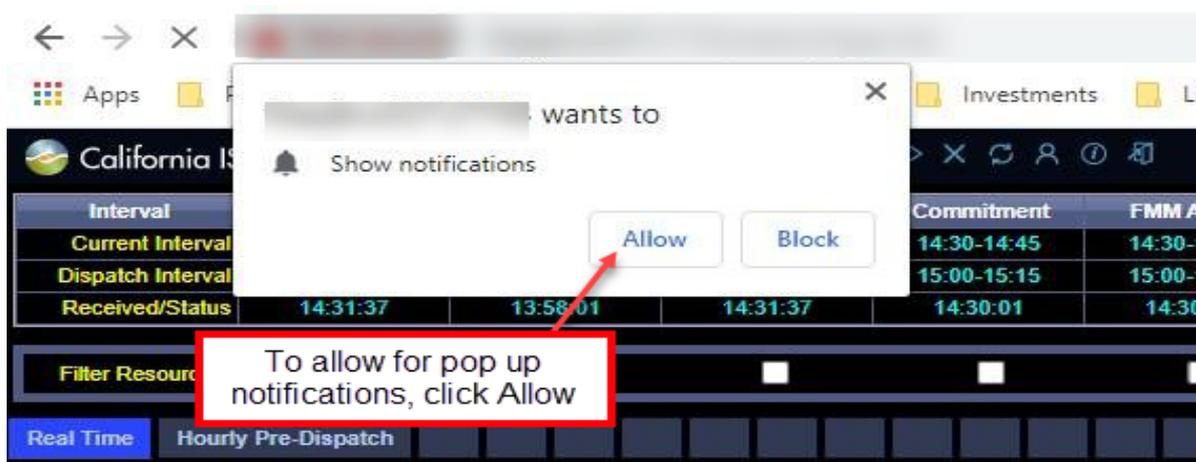
1. Browser will prompt you to allow for notifications
2. If Allow is selected, the pop ups will display in the lower right hand corner of your display
3. To bring up ADS upon notification, click in the empty area of the notification. To close notification, click close
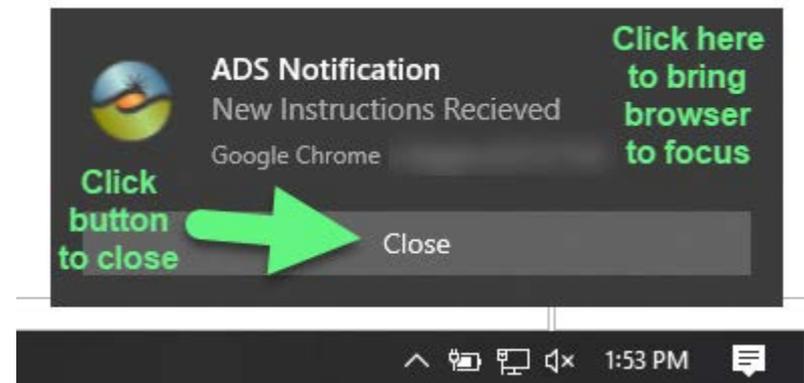
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Example: Enabling notifications in Edge with Chromium when launching the application

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Example: Disabling the notifications

- To disable the pop up notifications, navigate to settings and edit in "Manage Permissions"
- In Edge with Chromium, can also click the "Settings" wheel icon in the notification

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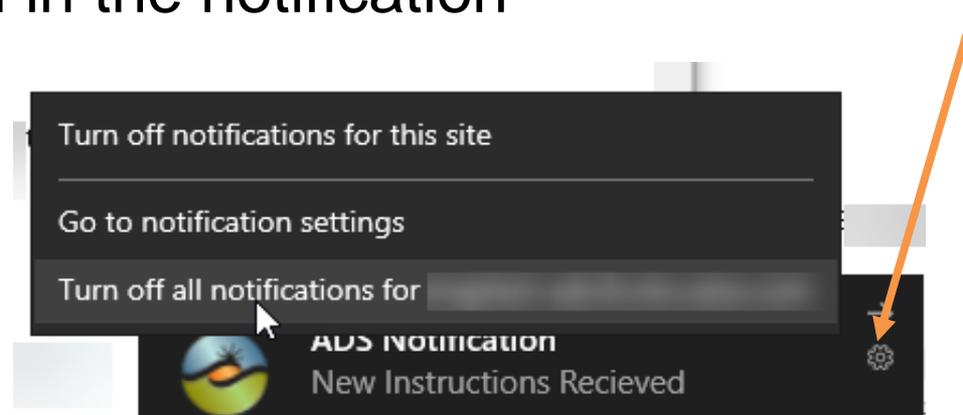
General tips when using UI

Logging in

- Log in each shift (i.e. during or after shift change, start new session)
- Load desired profile (previously setup/saved by you or your entity) using the Configurations button

Viewing Full Screen

- To view in full screen:
  - Click 3 dots in upper right hand side of Chrome Browser
  - Navigate to row label'd Zoom and click the "square" icon
- To exit full screen: click X when hovering in the middle of the display
- F11 on the keyboard is shortcut key for the above steps

Turning on Windows Notifications

- Accept request for permissions to allow for notifications upon logging in
- To enable when already logged in, go to the browser's advanced settings and manage permissions

Managing Audio Alerts in ADS

- To update settings, click **Pencil** icon, make changes by hitting **Update**
- To allow for alarm sound once, uncheck "Play Audio Alarm Continuously"
- To mute sound completely for notification, uncheck "Play Audio Alarm Continuously" *AND* click checkbox for "Mute sound"

Review

- High level - what is coming in terms of timeline and changes for ADS Replacement Project
- Walked through the general set of changes coming with the Replacement
  - Flex Ramp Up/Down awards
  - FMM Schedules
  - NSPIN Economic Dispatch
  - Unannounced A/S Testing

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Next Steps

Continue attending **Release User Group** and Technical User Group for updates

Review **Market Simulation Scenarios** and prepare for structured testing

Participate in **Market Simulation** starting July 27th, 2020 (connectivity)

Testing & Training throughout July-September 2020

Fall 2020 – ADS Replacement

Project Info	Details/Date
Application Software Changes	• Transition to web-based user interface to eliminate the need to install thick client • Transition ADS provisioning to the Access and Identity Management (AIM) application including Resource Level Access Controls (RACL) access • The query tool will provide 30 days of historical data • Various user interface enhancements adding content per Operation's request • ADS B2B services changes
BPM Changes	• Market Instruments • Market Operations

Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	N/A	
External BRS	Post External BRS	Aug 06, 2018	✓
ADS Update	ADS Update Meeting	Aug 15, 2018	✓
ADS Demonstration	ADS WebEx Demonstration	Apr 16, 2020	✓
CPG Meeting	ADS CPG Meeting	Jul 09, 2020	✓
Config Guides	Design review - BPM and Tariff SMEs	N/A	
Tech Spec	Publish Technical Specifications	May 22, 2020	✓
Tariff	Tariff Activities	N/A	
BPMs	Post Draft BPM changes	Jul 20, 2020	
External Training	Provisioning ADS ACL Training	Jun 01, 2020	✓
	External Training Part 1 (Application Preview preparation)	Jun 11, 2020	✓
	Deliver External Training Part 2	Jul 16, 2020	
Market Sim	Market Sim Window	Jul 27, 2020 - Sep 04, 2020	
Parallel Operations	ADS Parallel Operations	Sep 1, 2020 - Sep 30, 2020	
Production Activation	ADS Replacement	Oct 01, 2020	
Decommission	Old ADS Decommission	Feb 01, 2021	

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ADS – DOT Tariff Clarification
July 16, 2020 – Next!

- Ability to see Operating Instructions at the EIR resource level
  - Applies to Eligible Intermittent Resources
  - "Do not exceed DOT" instruction that includes: Reason, Start and End time with a Opr Instruction Flag and Follow DOT Flag
  - For more information please refer to:
    - BRS: http://www.caiso.com/Documents/BusinessRequirementSpecificationv11Clean-DispatchOperatingTargetTariffClarification.pdf
    - Stakeholder Initiative Training: http://www.caiso.com/InitiativeDocuments/Presentation-DispatchOperatingTargetTariffClarificationTraining.pdf

ADS – Intertie Deviation Settlement (IDS) project Training September 29, 2020

- Implement a new *Under/Over Delivery* charge for intertie deviations from Market Schedule and After-The-Fact (ATF) E-Tag, to replace *Decline* charge in Settlements

- In ADS, ability to view the HASP schedule, the SC accepted value, and the difference between the two (delta MW)

- For more information, please refer to:
  - BRS: http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=C63E5D69-FA4F-467C-828E-EF21BD9C4DF9

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Online References

- ADS Replacement Training Parts 1 and 2
  - caiso.com → Participate → <u>Learning Center</u>
  - Video for Part 2 may take 1-2 weeks
- Release Planning
  - <u>Release Planning Home Page</u>
  - <u>Project Documents</u>, including BRS and Market Simulation Scenarios
- Stakeholder Meetings
  - <u>Release User Group</u> (Ongoing)
  - <u>ADS Customer Partnership Group</u> (July 9th, 2020)
  - <u>ADS UI Replacement Provisioning Access Review</u> (June 1, 2020)
  - <u>Technical User Group</u> (May 26, 2020)
- API information/Technical Specifications
  - <u>Developer.caiso.com</u> >> Apps >> ADS
- BPM – Market Operations (caiso.com → Rules → Business Practice Manuals)
- BPM – Market Instruments (caiso.com → Rules → Business Practice Manuals)

Q&A from this webinar

- Q: If I am interested in participating in Market Simulation, but did not register in time – how can I find out if I can register late?
  - *Please email marketsim@caiso.com to find out if you may still register to participate in Market Simulation.*
- Q: Currently, when given a verbal unannounced A/S test – the test begins "when the Operator hangs up" (per the verbal dispatch). Can you please clarify between "receive" and "start time"? When it comes through ADS – when the does the unannounced A/S Test begin?
  - *The A/S test begins at the time in the **A/S Test Start Time** column in ADS User Interface.*
- Q: If we are a new project coming online, starting testing energy in mid-August, do we have to start with the current ADS UI or do we go straight to the new one?
  - *It will depend on when the resource is effective in Production (if effective prior to 10/1, may need the current ADS UI. Please submit a CIDI ticket to address any concerns you may have on timing).*
- Q: Is there a way to send acknowledgement via API?
  - *Yes, in the ADS API version 8 there is capability to acknowledge via API. To find more details on how – please refer to the Technical Specifications on www.developer.caiso.com*
- Q: I missed the ADS Replacement Training Part 1. Does this change affect the webservices interface too - https://adssta.caiso.com:447/ADS/APIWebService/v7?
  - *The ADS Replacement project will result in retirement of ADS v6. The ADS v7 will be supported with backwards compatibility – however, the new changes with the Replacement (such as new data fields and other changes discussed in this training, ADS Replacement Part 2, as well as changes with the DOT Tariff Clarification project) will only be supported in **v8**. We recommend reviewing the Technical User Group meeting from May 26, as well as the ADS Customer Partnership Group meeting from July 9th for more information on the transition and API changes.*

For more detailed information on anything presented, please visit our website at:

www.caiso.com

Or send an email to:
CustomerReadiness@caiso.com