

Market Simulation Call -Fall 2020 Release

Anshuman Vaidya Market Simulation Coordinator

September 14, 2020

Recordings

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 publicly 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.



Agenda

- MAP Stage Availability
- Known Issues ADS
- ADS Replacement Cutover Activities At a Glance
- ADS dependencies for DOTTC, IDS functionality
- 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 Maintenance
 - Tuesday, 9/15: Network testing, outages (loss of connectivity) to DRRSUI, ADS UI/API
 - Impacts/outages (loss of connectivity) to Parallel (Stage) ADS UI/API also
 - TBD: Extended Outage one week, Monday-Friday: CMRI UI/API for EIM Enhancements 2020 deployment - Closure, system will be unavailable
- MAP Stage Weekly Maintenance Window
 - Friday



Known Issues - ADS

#	System	Summary	Status	Estimated Fix Date
1	ADS	Continuous Alarm Change to repeat every x seconds (recommend 5 seconds)	Open	TBD
2	ADS	Column Picker should sort list of checkboxes alphabetically	Open	TBD
3	ADS	ADS Query Tool Dead Sapce on the bottom when lots of data available to show	Open	TBD
4	ADS	Column Selector availability intermittent.	Open	TBD
5	ADS	Ability to share/port over the profiles across environment	Open	TBD



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	STAG E	RODUCTION
API Existing URL	htps://adsmap.caiso.com:447/	htps://adsstage.caiso.com:447	htps://ads.caiso.com:447/
API Existing IBs	2.200.60.164	2.200.60.237	2.200.60.98
		2.200.60.238	2.200.60.99
			2.231.58.98
			2.231.58.99
API New Additional IPs	4542.17.165	4542.17.51 - corretion	4542.16.51
	4542.23.165	4542.23.51 - corretion	4542.22.51
U Existing URL	htps://adsmap.caiso.com:447/	htps://adsstage.caiso.com:447	htps://ads.caiso.com:447/
U Existing IP	2.200.60.164	2.200.60.237	2.200.60.98
		2.200.60.238	2.200.60.99
			2,231.58.98
			2.231.58.99
UNew Additional URL	htps://ads.map.caiso.com/	htps://ads.stage.caiso.com/	htps://ads.prod.caiso.com/
U New Additional IP	4 5.42.17.130	4 5.42.17.16	4 5.42.16.16
	4 5.42.23.130	4 5.42.23.16	4 5.42.22.16



ADS dependencies for DOTTC, IDS functionality Reminder:

- The new DOTTC & IDS functionality will only be available in new ADS UI and ADS API v8 and will
 not be available in the old ADS client or ADS API v7 (ADS API v6 will be deprecated), so any
 participant seeking to leverage the benefit of DOTTC and IDS on the ADS will need to use the new
 ADS UI and/or the new ADS API v8
 - New ADS UI & ADS API v8 available 10/1/20
 - DOTTC activation 10/1/20
 - IDS activation 1/1/2
 - ADS cutover 21/2021
- ADS API v6 will be deprecated upon deployment of ADS API v8 and only ADS API v8 and ADS API v7 will be supported; the UI is adopt when ready
- ISO Customer Service is conducting outreach for customer cutover plans for further coordination
- ADS & DOTTC training materials also provide reflect the availability of the new features in the new ADS

Miestone Date	A ctivity	Production - ADS Replacement	Production - DOTC	Production - IDS
0/1/2020	New Code Available	New ADS UI ADS API V8 Producton Go-Live		
10/1/2020	Hard CutOver	ADS API V6		
10/1/2020	Activation		DOTTC Activation only on New ADS	
1/1/2021	Activation			IDS Activation only on New ADS
02/0 <i>1</i> /2021	Hard CutOver	Current ADSDephi Clent		
🍣 California ISO		COPYRIGHT © 2016 by California	SO. All Rights Reserved.	Page 7

ADS dependencies for DOTTC, IDS functionality - continued

- 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





 The next teleconference is scheduled on, Thursday, September 17 at 1400 PDT



Reference Slides



Market Simulation Issue Management

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



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: <u>MarketSim@caiso.com</u>



Fall 2020 Release Communication Plan

• Schedule

Tuesday	Thursday
September 8	y 23,30 الله
	August 6, 8, 20, 27
	September 3, 10, 17
	•

Connection Information

- Web Conference Information
 - Web Address: <u>https://caiso.webex.com/meet/MarketSim</u>
 - Meeting Number: \$62 (667 710
 - Audio connection instructions will be available after connecting to the web conference. When pompted, 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
 - Dal-in Number: 866-528-2256
 - hternational Dal-in: 216-706-7052
 - Access Code: 202 249 0



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 July 3, 2020.

We will do our best to accommodate for late registration



Fall 2020 Release MAP Stage Connectivity Testing

- **Timeline Phase 1:** July 27 August 10
- **Timeline Phase 2:** July 27 August 10



Fall 2020 Release Market Simulation Initiatives & Timelines

Fall 2020 Release Initiatives	<u>Start Date</u>	<u>Start Date (Trade</u> <u>Date)</u>	End Date	<u>Stuctured Simulation Star</u> t (<u>Trade Date</u>)
Fall 2020 Release Market Simulation Phase 1	07/27/20	07/28/20	09/04/20	08/11/20
Automated Dspatch System (ADS) eplacement				08/11/20 (Corpleted) Rerun on 8/18 per MP request - Corplete
©mmitment osts and effault energy bd enhancements				NA
Dspatch perating brget briff carification				08/12/20 (Corpleted)
Energy storage and oistributed energy esources plase 3				08/19/20 (Complete) Rerun on 9/2 - Complete
ERC Order No. 841 requested adjustments				08/12/20 (Settlement statement published)
©mmitment ost ehancements ariff darifications				NA
Fall 2020 Release Market Sinulation Phase 2	07/27/20	07/28/20	09/18/20	08/2 <i>5</i> 20
Market settlement timeline transformation				08/25/20 (TD 8/25 under Settlements omplete)
Excess behind the meter production				08/2/20 (TD 8/25 under Settle ments omplete)

Market Simulation Plan:

http://www.caiso.com/Documents/MarketSimulationPlan-Fall2020Release.pdf



COPYRIGHT © 2016 by California ISO. All Rights Reserved.

Page 16

Known Issues - DRRS

#	S ystem	Summary	S atus	Estimated Fix Date
1	DRRS	U: Advanced filter input controls do not automatically dose as the user is dicking from one control to another, causing the ontrols (date picker, text felds, dropdown lists, etc) to stack on top of each other.	Cpen	ΤBD
2	DRRS	 U: The application disconnect/connect icon and its espective display text are not in-sync: When the application is disconnected caused by a timeout, the text displays as "Gonnected" where it should display as" Disconnected". When the application econnects, the icon obes not display as connected While there is an issue with the visual freedback, the application functionality is not impacted. 	Qpen	TBD



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 -

- <u>http://www.caiso.com/Documents/AutomatedDispatchSyste</u> <u>mReplacementPart1.pdf</u>
- <u>http://www.caiso.com/Documents/AutomatedDispatchSyste</u> <u>mReplacementPart2.pdf</u>



ADS Replacement – Cutover Activities At a Glance

Milestone Date	Activity	MAFStage	Stage	Production	
7/27/2020	New Code Anailable	New ADS UI ADS API V8 Begin Maket Sim	-	-	
7/27/2020	Had Ct-Over	ADS ARI V6	-	-	
(9) /01/2020	New Code Anailable	-	New ADS UI ADS API V8 Begin Parallel Operations	-	
(1) /01/2020	Had Ct-Over	-	ADS AR V6	-	
(19/04/2020	Milestone	End Maket Sm	-	-	
09/30/2020	Milestone	-	End Parallel Operations	-	
10/1/2020	New Code Anailable	-	-	New ADS UI ADS API V8 Production Go-Live	
101/2020	Had Ct-Over	-	-	ADS AR V6	
11,04/2020	Had Cut-Over	Current ADS Delphi Client	Current ADS Delphi Client	-	
@/01/2021	Had Cu-Over	-	-	Current ADS Delphi Client	



ADS Replacement – Data availability – During Parallel Operations

- 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.



Energy storage and distributed energy resources phase 3

- **Timeline:** July 27 September 04
- Structured: August 19 Complete (Rerun on 9/2-Complete)
- Setup needed:
 - PDR-LSR Curtailment.
 - If market participant wants to see only energy award, then, submit very cheap energy bids
 - If market participant wants to see AS award, say Spin, submit very expensive energy bids and 0\$ Spin bid
 - PDR-LSR Consumption.
 - Avoid submitting large negative energy bid. Suggested bid around \$ -1

Structured Scenarios document -

http://www.caiso.com/Documents/ESDER3BMarketSimulationStructured ScenariosFall2020.pdf

Training -

http://www.caiso.com/Documents/EnergyStorage DistributedEnergyReso urces Phase3B.pdf



Excess behind the meter production

- **Timeline:** July 27 September 18
- Structured: August 25
- Note:
 - MSTT cutover TD 8/24/20 (Corresponds to Production TD 1/1/21)
 - Phase 2 (MSTT, EBTMP) Structured Scenarios first Settling TD 8/25
 - MP needs to submit meter data by 8/28 for initial and by 9/2 for Recalc statement
 - On 8/31, ISO terminated submitted EBTMP values from Settlements only for TD 8/25 to execute SS#1 in order to demonstrate the use of only gross load "LOAD" data for the initial statement processing
 - EBTMP meter data was removed from Settlements only to exclude from initial statement and this submitted EBTMP meter data will be readded to Settlements for processing of the recalc statement
 - Submitted EBTMP meter data is still able to be retrieved in MRI-S
 - Please submit EBTMP values for TD 8/25 by 9/2 for SS#2 to include in Recalc
 - OASIS: EBTMP report will have data for TD 8/25 when the Settlements Recalc has been processed

Structured Scenarios document -

http://www.caiso.com/Documents/MarketSimulationScenariosExcessBehindtheMeterProduction.pdf

Training - http://www.caiso.com/Documents/Presentation-Excess-Behind-Meter-Production-Training.pdf





Market settlement timeline transformation

- **Timeline:** July 27 September 18
- Structured: August 25
- Note:
 - MSTT cutover TD 8/24/20 (Corresponds to Production TD 1/1/21)
 - Phase 2 (MSTT, EBTMP) Structured Scenarios first Settling TD 8/25

Structured Scenarios document -

http://www.caiso.com/Documents/MarketSimulationScenario sMarketSettlementTimeline.pdf

Training - <u>http://www.caiso.com/Documents/Presentation-</u> <u>MarketSettlementsTimelineTransformationTraining.pdf</u>



FERC Order No. 841 requested adjustments

- **Timeline:** July 27 September 04
- Structured: August 12 (Settlement statement published)

Structured Scenarios document http://www.caiso.com/Documents/FERC841RequestedAdjustm entsMarketSimulationStructuredScenariosFall2020.pdf

Training - <u>http://www.caiso.com/Documents/FERC841Training.pdf</u>



Commitment Costs and Default Energy Bid Enhancements

- **Timeline:** July 27 September 04
- Training <u>http://www.caiso.com/Documents/Presentation-</u> <u>CommitmentCosts-DefaultEnergyBidEnhancements.pdf</u>



Commitment cost enhancements tariff clarifications

• Timeline: July 27 – September 04



Dispatch operating target tariff clarification

- **Timeline:** July 27 September 04
- Structured: August 12 (Completed)

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

Training - <u>http://www.caiso.com/Documents/Presentation-</u> <u>Dispatch-Operating-Target-Clarification-Training-Jul16-</u> <u>2020.pdf</u>



Energy imbalance market enhancements 2020 - Independent 2020

- Timeline
 - Phase 1: August 31 October 14
 - Phase 2: September 21 October 14
- Structured: N/A market simulation will now be tested as unstructured with a CAISO issued guide for market participants

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



Energy imbalance market enhancements 2020

System	Phase 1: 8/31	Phase 2: 9/21
BAAOP	 Allow EIM entity override activation for the contingencies up to 15 in NA contingency list Add visibility of other adjacent BAA's ETSR locks and reasons Add Static ETSR transfer data to RTD Dispatch Control Display (ETSR tab). Add Static ETSR transfer data to BAAOP ETSR Detail Display (in RTD) In RTD/RTPD Dispatch Control display, in Dispatch Instruction Review table, add columns for UP and DN remaining ramp capacity (5/15 minute respectively). In addition, include the sum of these columns at bottom of table. Example Calculation: RTD UP Ramp = MIN(5MinRampRate, [UpperLim-CurrentDispatch]. Add Supplemental DOT to VER resources to Dispatch Control displays; Detail: In BAAOP RTD/RTPD Dispatch Control, add SUPP DOT column Fix the functionality for Manual Dispatches - users should be able to utilize MSG functions, such as designating a specific configuration, and users should be able to do commitment override EIM Entities have a notification status of market inputs, showing if BAAOP received the latest payload of critical market inputs. Example Critical data submissions: (not all inclusive) 	• Fix/Improve SVG One Lines. Request to be able to view SE and telemetry values for all substation flows and elements
BSAP	 Add Manual Dispatch information to BSAP Resource Bal Viewer. Add any applicable deviations that used in the test to BSAP BAA Bal Viewer. For the Bid Range Capacity Test Results report, Requirement Amount Column needs to publish the true requirement, not just the INCREMENTAL/DECREMENTAL requirement 	N/A
RTM	 Publish the data of the MW infeasibility data and ABC Up and Down Dispatches of RTPD/RTD Publish the effective ETSR import and export limits for the market run for RTPD and RTD Support Pump Storage for EIM BAAs 	 Publish the effective load conforming for the market run for RTPD and RTD for Binding and Advisory
CMRI	 Display and publish, download the data of the MW infeasibility data and ABC Up and Down Dispatches of RTPD/RTD For the Bid Range Capacity Test Results report, Requirement Amount Column needs to display and publish, download the true requirement, not just the INCREMENTAL/DECREMENTAL requirement. Only upstream has changes with regards to the data that is sends to CMRI. 	 Display and publish, download the data of the effective load conforming for the market run for RTPD and RTD for CMRI Load Conforming Binding rpt CMRI Load Conforming Advisory rpt
(st		

California ISO

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)



Energy storage and distributed energy resources phase 3 - CIRA changes



31

- PDR_LSR Consumption resources are not eligible for Resource Adequacy
- CIRA will not allow a PDR-LSR Consumption resource to submit a request for NQC

Plans	RA Validation	Substitutions	RAAIM Pre-Calc	CSP Offers	Reports	Legacy Replacement
Upload	Submit NQC Re	quest Form				
() Invali	d ResourceId (Cell B3)	Yana and a start of the start o				
NQC I		PDR-LSR Consumpti	on Resource PGCC_1_P	DRPCON002 (Cell I	33)	
NQC	upload not allowed for d ResourceId (Cell B2)	PDR-LSR Consumpti	on Resource PGCC_1_P			
NQC NQC NQC NQC	upload not allowed for d ResourceId (Cell B2)	PDR-LSR Consumpti				
NQC	upload not allowed for d ResourceId (Cell B2) upload not allowed for	PDR-LSR Consumpti				

Master File GRDT v14 Submissions

- Please submit GRDT v14 to MAP Stage Master File UI/API
- <u>GRDT 14.0</u>
- UI: https://portalmap.caiso.com/mf
- API:
 - https://wsmap.caiso.com/sst/runtime.asvc
 - RetrieveGeneratorRDT_MFRDv5
 - RetrieveGeneratorRDT_MFRDv5_DocAttach
 - SubmitGeneratorRDT_MFRDv5
 - SubmitGeneratorRDT_MFRDv5_DocAttach

Naster file		
Project	Change	
ISDER3B	Add enumeration to GRDT: DR_TYPE of FDR_LSR	
ERC841 BA	New GRDT attribute: Apply Wholesale Charge	
BM2020	New GRDT attribute: Meter Data hterval	
(Cther	Remove fom GRDT: MN_DISP_LEVEL	
CCE Tariff	New GRDT attribute: Run of River	
Sow DR	New GRDT attribute: Sow DR	
nia ISO	COPYRIGHT © 2016 by California ISO. All Rights Reserved.	Page 32

Settlem	 		

				Meter Data Due T+4E		Rublish Recalc		Rublish Recalc	
Caled	CM R		Staten ent	Staten ent	Rublish hitial	Staten ent	Meer data dee foo	Staten ent	
ar Day	T+1B		T+4B		statenent T+6B	T+8B	T+70Bstatenent	T+9B	Rublish Makethvoice
		Solution Solution	T+3Bhitial.						
		Data	Estimatel by						
		by T+3B 18:00		Sob mit Meer Data			Solumit Meer Data		
		fo T+9B	Meer Data	by T+4B 18:00 f o	T+9Bhitial. hcludes		by T+6B 18:00 fo		
		hitial	sbmission	Recalc	Estimatio		Recalc	T+70B Recalculation	
			NTAL Current		NTIAL (New MSTT)	RECALC1 Current	New MSTT	RECALC New	
			MSTT)	Corrent MSTT		MSTT)		MSTT)	
29-Jul-						morry			
D	ℬ -Jul								
30-Jul-									
Ø	29-Jul								
03-Aug									
Ø			8 -Jul	28-Jul					
04-Aug									
Ø			29-Jul	29-Jul					
05-Aug			Monthly hitial 8-						Daily hitial 28-Jul, 29-Jul
Ø	4Aug		<u>վվ - 2</u> -Jul						Monthly hitial 8-Jul - 9-Jul
06-Aug									
Ð	5Aug								
07-Aug									
2						2 -Jul			
10-Aug			44	44		7 1.1			
Ø			4Aug	4Aug		29-Jul			
11-Aug						Monthly Recalc 8-			
Ø			5Aug	5Aug		ակ - 29-Jul			
12Aug			Monthly hitial 4						Daily Recalc 28-Jul, 29-Jul
Ø			Aug - 5Aug						Monthly Recalc 28-Jul - 29-
									الك
									Daily hitial 4Aug, 5Aug
40.4	1 -Aug								Monthly hitial 4Aug - 5Aug
13-Aug 12	2-Aug								
14-Aug	⊥ -Aug								
14-Aug Ø						4Aug			
17-Aug									
D D			1 -Aug	1 -Aug		5Aug			
18-Aug				<u> </u>		Monthly Recalc 4Aug			
Ø			2-Aug	12-Aug		- 5Aug			
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		<u>0</u>	•		



Settleme			

							_		/
				Meer Data Due T+4E		Rublish Recalc		Rublish Recalc	
Caled	CMR		Staten ent	Staten ent	Rublish hitial	Staten ent	Meer data dee foo		
ar Day	T+1B		T+4B		statenent T+6B	T+8B	T+70Bstatenent	T+9B	Rublish Makkethvoice
		Solomit Meer							
		Data	Estimatel by						
		by T+3B 18:00		Sobmit Meer Data			Solumit Meer Data		
		fo T+9B	Mteer Data	by T+4B 18:00 f o	T+9Bhitial. hcludes		by T+6B 18:00 f o		
		hitial	sbmission	Recalc	Estim atio		Recalc	T+70 B Recalculation	
			NTAL Current		NTIAL (New MSTT)		New MSTT	RECALC (New	
			MSTT)	Corrent MSTT		MSTŤ)		MSTT	
19-Aug		· ·	Monthly hitial 1-					· ·	Daily Recalc 4Aug, 5Aug
20 ັ		1	Aug - 2-Aug		1	1		1	Monthly Recalc 4Aug - 5
		- I				1		1	Aug
		I	1			1		1	
			1			1		1	Daily hitial 1-Aug, 2-Aug
		- I	1			1		1	Monthly hitial 1-Aug - 2-
	B -Aug	I	1					1	
⊉ -Aug-		1	[1			1	/ ·····g
Ø	9 -Aug	I	1'		'	1		· '	1/
2-Aug-		ļī	1		· · ·			· · ·	
Ø			1'		'	1 -Aug		· ·	1/
⊉-Aug-	·	Ţ1		1	1	<u> </u>		Ţ	
Ø		I	1 8-Aug	B -Aug	'	2-Aug		!	1
∄-Aug-				-	1	Monthly Recalc 1-		· · · · · ·	!
Ø		I	᠑ -Aug	₽ -Aug	'	Aug - 2-Aug		· '	1!
£∂-Aug-		Т	Monthly hitial 8-		1			T	Daily Recalc 1-Aug, 2-Aug
2		/ I	Aug - 9-Aug			1		1	Monthly Recalc 1-Aug - 2-
		<mark>/</mark> !	///////////////////////////////////////			1		1	Aig
		<mark>/</mark> /	1			1		1	, wg
		/ I	1			1		1	Daily hitial 8-Aug, 9-Aug
		<mark>/</mark> !	1			1		1	Monthly hitial 8-Aug - 9-
	ቜ-Aug	<mark>/</mark> !	1			1		1	Aig
Z -Aug		, 			1			· † · · · · ·	/ "8
D	ℬ -Aug	<mark>/</mark> !	1			1		1	1
2 -Aug-			4		1			1	
D		3 -Aug	4			B -Aug		1	1
			4		1			1 ,	[
Ø		B -Aug	4			9 -Aug		1	1
01-Sp-			1		1	Monthly Recalc 8-		· · · · · ·	
Ø			1			Aug - 9-Aug		1	1
02Sep-		,,		1		/////		, ,	
2 2	1Sep	/ ·	1		ืืื⊁-Aug	4	ቜ-Aug	<mark>/</mark> '	1
		, t	(, ,	
2 2	2Sep	/ ·	1		ℬ -Aug	4	₿-Aug	<mark>/</mark> '	1
		4		1				4	



COPYRIGHT © 2016 by California ISO. All Rights Reserved.

Page 34

Settleme	ents	Ca	lend	dar

				aloridai					
			Rublish hitial	Meter Data Due T+4		Rublish Recalc		Rublish Recalc	
Caled	CMR		Staten ent	Staten ent	Rublish hitial	Staten ent	Meer data dee foo	Staten ent	
ar Day	T+1B		T+4B		staten ent T+6B	T+8B	T+70B staten ent	T+9B	Rublish Makket hvoice
u. Duy		Sob mit Meer	T+3Bhitial.			1100		1100	
		Data	Estimatel by						
		by T+3B 18:00	DREAMS. NO	Solomit Meer Data			Solomit Meer Data		
		for T+9B	Mteer Data	by T+4B 18:00 f o	T+9Bhitial. hcludes		by T+6B 18:00 f o		
		hitial	sbimission	Recalc	Estim atio		Recalc	T+70 B Recalculation	
			NTIAL Current		NTIAL (New MSTT)	RECALC1 Current	New MSTT	RECALC (New	
			MSTT)	Corrent MSTT		MSTT)		MSTT)	
02Sep-								,	
Ø	1Sep				ፚ -Aug		3-Aug		
03-Sp-	100 p				2 Aug		2 Aug		
2 2	250.0				πλυσ		πλυσ		
	2Sep				B -Aug		B -Aug		
04-Sp-					Monthly hitial 28-Aug -				
Ø		1Sep			26-Aug				
08-Sp-					-				
Ø		2Sep						ፚ -Aug	
09-Sp-									Daily hitial 35-Aug, 16-Aug
Ø									Monthly hitial 28-Aug - 28-
2									
									Aug
									Daily Recalc 8-Aug, 9-Aug
									Monthly Recalc 8-Aug - 9-
								ℬ -Aug	Aig
10-Sp-								Monthly Recalc 23-	-
Ø					1Sep		1Sep	Aug - 18-Aug	
11-Sp-									
2					2Sep		2Sep		
 14-Sթ-					Monthly hitial 0-Sep -		200 0		
14-0p- 2									
					Ø-Sep				
16-Sp-									Daily hitial 0-Sep, 02-Sep
Ø									Monthly hitial 0-Sep - 2-
									Sep
									Daily Recalc 25-Aug, 26-Aug
									Monthly Recalc 2-Aug - 2-
								1Sep	Aig
17-Sp-									Aug
17-Sp- 2								20.00	
								2Sep	
18-Sp-								Monthly Recalc 0-	Daily Recalc 0-Sep , 02-Sep
Ø								Sep - Q2-Sep	Monthly Recalc 0-Sep - 2-
									Sep
									'



Fall 2020 Release - System Interface Changes - CCDEBE1

\$BR	BR								
₽oject	Change Type	API Service Name & Major Version, Artifacts	MAP Sage	Poduction	Technical Specifications				
CDEBE1	Modify	RetrieveCleanBidSet_SIBRv5_AP	✓ ❶/16/19	✓ Deploy ≱26/20	8.2				
CDEBE1	wearry	RetrieveCleanBidSet_SIBRv5_DocAttach_AP	¥ 10/19	Activation 10/1/20	D. Z				
CDEBE1	Modify	RetrieveCurrentBidResults_SIBRv5_AP	✓ 0 /16/19	✓ Deploy ≱26/20	8.2				
C DEBEI	wearry	RetrieveCurrentBidResults_SIBRv5_DocAttach_AP	¥ 10/19	Activation 10/1/20	B.2				
CDEBE1	Modify	ရှိbmitRawBidSet_SIBRv5_AP	✓ ❶/16/19	✓ Deploy ≱26/20	B.2				
C DEBEI	wully	SubmitRawBidSet_SIBRv5_DocAttach_AP	¥ ₩/10/19	Activation 10/1/20					

©M/RI											
₽oject	Change Type	U	API Service Name & Major Version, Attifacts	MAP \$ age	Poduction	Echnical Specifications					
MPME ©DEBE1	Modify	Existing Benort Detault	ιetrieveDefaultBidCurves_CMRIv2_AP RetrieveDefaultBidCurves_CMRIv2_DocAttach_AP	MPME ✓ ∮12/19 ©DEBE1 ✓ 1/6/19	MPME ✓ 1/13/19 CDEBE1 ✓ Beploy \$26/20 Activation 10/1/20	39.4 Release Notes 12					
CDEBE1	Modify	Existing Benort Detault	֎trieveExternalDefaultCommitmentCost_CMRIv1_AP@trieveExternalDefaultCommitmentCost_CMRIv1_DocAttach_AP	✓ 1/11/19	 ✓ Deploy \$26/20 Activation D(1/20 	39.4 Release Notes 12					

http://developer.caiso.com

Page 36



Fall 2020 Release - System Interface Changes

ADS						
Poject	C hange	Summary	Technical Specifications	MAP Stage	Poduction	
" Oject	Type			Turki aruge	" ou dettion	
ŊΆ	Decom	Decommission of deprecated versions	🗸 🖇 🖉 🖉 🖌	7/27/20	D/1/20	
ADS Replacement	New	ÆlWebService 😵	✓ Ø16/20, ⊗.1.0	727/20	D/1/20	
DOTTC		APIResponseWebService &	✓ \$21/20, % .0.0	,27,20	D/ 1/20	

DRRS						
₽oject	Change Type	Simmary	Technical Specifications	MAP \$ age	Poduction	
		SubmitDRLocations_DRRSv2_AP			Beploy ∳14/20	
		SubmitDRLocations_DRRSv2_DocAttach_AP		7/27/20		
		SubmitDRRegistrations_DRRSv2_AP				
ISDER3B	Modify	SubmitDRRegistrations_DRRSv2_DocAttach_AP	√ ≸1/20, 3 .2			
DUERSD	wully	RetrieveDRLocations_DRRSv2_AP				
		RetrieveDRLocations_DRRSv2_DocAttach_AP				
		RetrieveDRRegistrations_DRRSv2_AP				
		RetrieveDRRegistrations_DRRSv2_DocAttach_AP				

MRI-S					
Poject	Change Type	Summary	Technical Specifications	MAP \$ age	Poduction
BTMP	Modify	Br: -NRIS Netter: Submit Netter & -NRIS Netter: Retrieve Netter additionally include BtMP measurement type values (as negative bad) both Goss bad and BtMP meter olta vojuld asociate with same bad Resource D	√ ≸28/20, 2 .5	7 27/20 Page 37	Activation 1/1/21



Fall 2020 Release - System Interface Changes

Master He	Master fle							
Roject	Change	Change Type	Summary	Technical Specifications	MAP Stage	Roduction		
ISDER3B	Add enumeration to GRDT: DR_TYPE of PDR_LSR	_	RetrieveGeneratorRDT_MFRDv5 RetrieveGeneratorRDT_MFRDv5_DocAtta ch					
ÆRC841 RA	New GRDT attribute: Apply Wholesale Charge			✓ Ø12/20, √6.1	7/27/20	D/1/20		
EM2020	New GRDT attribute: Meter Data Interval	Modify	SubmitConcratorDDT_MEDDyE	✓ 5⁄28/20, √6.0				
C ther	Remove fom GRDT: MIN_DISP_LEVEL		SubmitGeneratorRDT_MFRDv5 SubmitGeneratorRDT_MFRDv5_DocAttac					
CCE Tariff	New GRDT attribute: Run of River		h					
Slow DR	New GRDT attribute: Sow DR							

http://developer.caiso.com

Page 38



Fall 2020 Release - System Interface Changes

O MRI						
Project	Change Type		Technical Specifications		MAP S age	Roduction
Ŋ/A	Decom	Decommission of deprecated versions	~	≸29/20, ൾ.9.5	7/27/20	9 1/20
EM2020		RetrieveEIMInfeasibility_CMRIv1_AP RetrieveEIMInfeasibility_CMRIv1_DocAttach_AP	~	≸29/20, ൾ.9.5	7/27/20	D/1/20
EM2020		RetrieveLoadConfirming_CMRlv1_AP RetrieveLoadConfirming_CMRlv1_DocAttach_A P	~	≸29/20, v3.9.5	7 /27/20	D/1/20
EM2020	New	Available Balance Capacity		7/2/20	7/27/20	D/1/20

OASIS					
Project	Change Type	Summary	Technical Specifications	MAP S age	Roduction
Ŋ⁄A	Decom	Decommission of deprecated versions	√ <i>5</i> /29/20, √5.1.13	7/27/20	9 1/20
BTMP	New	ENE_ EBTMP_PERF_DATA	✓ Ø22/20 ✓ Ø29/20, ७.1.13	7/27/20	Activation ⊉1/21

http://developer.caiso.com

Page 39



Introducing ISO Settlements Twitter Tool for Market Sim Updates

- Market sim updates will be made available ۰
- Note: Will not replace any existing media communications •
- Please take the opportunity to follow <u>@ISOSettlements on Twitter</u> by downloading the Twitter application to **any mobile device**
- Twitter feed can be accessed on **any web browser**
- **No account required** to view the Twitter feed and posts



Updates that are tweeted

	Tweets		Information
•	Market Smulation MAP-STAGE Master File U and API available for Fall 2020 Release connectivity	•	http://www.caiso.com/Pages/documentsby group.aspx? CoupID=25991DEB-2F25- 4976-8958-4F04745A59AA

::: Submit updates to us: twitter.com/isosettlements.com





Recent Tweets



Follow us on Twitter **S** @ISO Settlements



COPYRIGHT © 2016 by California ISO. All Rights Reserved.

Page 42

Reminder: DRRS UI Upgrade features

- Image icons, control buttons, label fonts have a new different color scheme
- The "Apply" and "Reset" buttons appear on the far right side of the screen, as opposed to appearing after the last display input filter
- The data grid output export filename no longer contain the user certificate name
- The application window is not maximized by default, when launching the application
- The data grid columns are no longer adjustable
- <u>Technical User Group Presentation 6/28</u>



Reminder: DRRS UI Upgrade features

Current Production/Pre-Fall 2020 Release

🍣 Californ	nia ISO Dei	mand Respon	ise Regist	ration System	• ◆ ● ℃ ₽₽ ☆ →]	1		DRRS
DRP VIEW UDC VIEW LSE VIE	W ADMINISTRATION							
DRP VIEW Locations								
LOC ID LOC Name	SAN SAN	DRP [ALL] VDC [ALL]	LSE [ALL]	✓ SUBLAP [ALL] ✓ D	efense Active [ALL] Apply Reset			^
Create Copy	Delete Defend With	draw Edit End D	Date Register			-		
Locations							Registrations	
	25 of 423730 🕨 🔰	0				Rows 25	v 🗄 🖷	Rows 25 🗸
	25 of 423730 🕨 🄰 📩	SAN	DRP UDC	LSE SUBLAP	PNODE Start Date End I	Defense Defense Defe	v 🗄 🖷	
Èo Y 🖉 🔚 I4 🖣 1 -	25 of 423730 🕨 🎽 📃	-	DRP UDC	LSE SUBLAP	PNODE Start Date End D	Dete Statue Defense Defense Defe	v 🗄 🖷	
Ê Ÿ ≝ 🖪 I¶ ¶ 1 -	25 of 423730 🕨 🕨 📩	-	DRP UDC	LSE SUBLAP	PNODE Start Date End I	Dete Statue Defense Defense Defe	v 🗄 🖷	
Ê Ÿ ≝ 🖪 I¶ ¶ 1 -	25 of423730 🕨 📔 📩	-	DRP UDC	LSE SUBLAP	PNODE Start Date End f	Dete Statue Defense Defense Defe	v 🗄 🖷	

Fall 2020 Release currently in MAP-Stage:

🍣 California ISO			DRRS						
DRP VIEW UDC VIEW LSE VIEW ADMINISTR	ATION								
> DRP VIEW > Locations									
LOC ID LOC Name	SAN DRP	♥ UDC [ALL] ♥ LSE [A	L] V SUBLAP	ALL] V Defense	Active [ALL] V Updated Since DateTime	iiii		Apply Rese	et 🖉
Create Copy Delete	Defend Withdraw	Edit End Date	Register						
Locations							Registrations		
📚 🏹 🗽 ≸≣ 🔰 🖣 4976 - 5000 of147047	▶ ▶ 5000 GO					Rows 25 🗸	\$ 7	R	OWS 25 🗸
Select Loc ID Name	SAN	DRP UDC L	SE SUBLAP De	vice Type PNODE	Start Date End Date Status Defense Active?	Defense Defense Start End	Reg ID Reg Name	Start Date End Date State	us

