



Market Enhancements for Summer 2021 Readiness

Draft Tariff Language and Business Requirements Specification

Stakeholder Meeting

Feb 26, 2021

ISO PUBLIC

Agenda

Time:	Topic:	Presenter:
10:00 – 10:05	Welcome and introduction	Kristina Osborne
10:05 – 11:00	Review draft tariff language	Anthony Ivancovich Andrew Ulmer John Anders Jordan Pinjuv Bill Weaver
11:00 – 11:40	Business requirements specification (BRS) overview	Ken Kasparian
11:40	Next steps	Kristina Osborne



Market Enhancements for Summer 2021 Readiness Business Requirements Update

Draft BRS – Summer 2021 Readiness on ISO website / Release
Planning / Summer 2021:

<http://www.caiso.com/Documents/Business-Requirements-Specification-Summer-2021-Readiness-Draft.pdf>

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Project Information	Details
<p>High Level Project Scope</p>	<ul style="list-style-type: none"> • DAM and RTM Export and Load Scheduling Priorities <ul style="list-style-type: none"> • Implement scheduling priorities • RTM EIM Coordination and Resource Sufficiency Test <ul style="list-style-type: none"> • Include the uncertainty requirements in the capacity test • Require auto-matching for mirror resources mirroring system resource at ISO SP • Perform capacity test after flex ramp test. • Account resource derate in the capacity test • Fix defect on double count mirror resource • Set priority for base intertie schedules and base ETSR for EIM entities higher than other base schedules • Use last RTD advisory pre-contingency for EIM transfer if running out of advisory transfer for EIM BAA under contingency • RTM Import & Export Market Incentives During Tight System Conditions <ul style="list-style-type: none"> • Make-Whole Payment • Make-Whole Uplift Cost • RTM Real-Time Price Enhancements During Tight System Conditions <ul style="list-style-type: none"> • ISO Operator Identification of Tight System Conditions • Release all applicable (contingent and non-contingent) Operating Reserves at the Bid Cap Price • DAM and RTM Reliability Demand Response Resource (RDRR) Dispatch and Real-Time Price Impacts <ul style="list-style-type: none"> • Incorporate the RDRR/PDR dispatch into market load forecast. • Define RDRR 60-minute, 15-minute, and 5-minute resource. • Dispatch RDRR in RTPD and RTD, 60-minute RDRR is price taker. • Operator enable RDRR dispatch, then market will allow 15-minute and 5-minute RDRR set the price. • Allow RDRR bid in RTM between 95%-100% of soft bid cap, to send price signals if RDRR set price. • OASIS Reports and Planning <ul style="list-style-type: none"> • New report showing gross exports and imports by intertie for CAISO • Management of Storage Resources during Tight System Conditions <ul style="list-style-type: none"> • Changes to Regulation Requirements • New Operator Tools to monitor the storage fleet • New Operator Tools to specify a specific state of charge for storage resources
<p>BPM Changes</p>	<p>Demand Response, Energy Imbalance Market (EIM), Market Instruments, Market Operations, Reliability Requirements, Settlements and Billing,</p>
<p>Impacted Systems</p>	<p>ALFS, Master File, SIBR, DAM, RTBS, RTM, OASIS, Settlements.</p>

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System	High Level Changes
Master File	<p>DAM and RTM Export and Load Priorities</p> <ul style="list-style-type: none"> Set MF Flag to identify Resource that can support export <p>RTM EIM Coordination and Resource Sufficiency Test</p> <ul style="list-style-type: none"> Require the auto-mirror flag for the mirror resources that are mirroring system resources at CAISO interties Capture mapping between mirroring system resources and ETIE, ITIE, TG, and TNGR (provided by EIM entity) <p>DAM and RTM Reliability Demand Response Resource (RDRR) Dispatch and Real-Time Price Impacts</p> <ul style="list-style-type: none"> Define RDRR as a 60, 15, 5 minute resource
SIBR	<p>DAM and RTM Export and Load Priorities</p> <ul style="list-style-type: none"> SC submit self-scheduled export (existing functionality) Set RUC bid to \$0/MWH for resources supporting self-scheduled exports Validate DA non-RA supply and set priority of the export in DAM Notify the SC of designated resources in DAM Pass export and associated priority to the market Specify the wheel schedule priority for DAM Generate a wheel DAPT schedule equal to the RUC schedule when a wheeling schedule is not re-bid in RTM Generate a self-schedule export DAPT schedule equal to the DAPT schedule in DAM Convert total DAPT schedule in to DALPT schedule when the support resource RTM bid cannot be supported Expand supporting resource RA RUC obligations for non-RA capacity equal to the sum of applicable DAPT exports Allow Self-schedule export with supporting resource submit or re-submit in real-time Identify self-schedule priority for each export type and pass to the RTM Notify SC of the designated resource supporting DAPT and RTPT export Identify the wheel schedule priority and pass to the RTM
RTBS	<p>RTM EIM Coordination and Resource Sufficiency Test</p> <ul style="list-style-type: none"> Perform EIM base schedule capacity test accounting resource outage and manual dispatch instructions Ensure mirror resource scheduling point is only counted in the EIM BAA base schedule flex ramp test and capacity test Perform the flexible ramping test first for each EIM BAA Perform the capacity test for each EIM BAA include the uncertainty requirement

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System	High Level Changes
Day Ahead Market (DAM)/ Real Time Markets (RTM)	<p>DAM and RTM Export and Load Priorities</p> <ul style="list-style-type: none">• Model wheel schedule as import with \$0/MWh import bid for DAM• Setup the higher penalty cost for higher priority in MPM, IFM and RUC• Optimize and publish export schedule award and designated resource award in the Market• Model wheel schedules as import with \$0/MWh import bid for RTM• Setup the higher penalty cost for higher priority in STUC, RTPD, and RTD• Allow operator review and control the instruction of self-scheduled the export and wheeling import/export by priority <p>RTM EIM Coordination and Resource Sufficiency Test</p> <ul style="list-style-type: none">• Set higher penalty cost for base ETSR, base inertia schedule than other base schedule• Use last advisory RTD schedules when the contingency operation extends beyond the advisory horizon <p>RTM Real-Time Price Enhancements</p> <ul style="list-style-type: none">• Provide capability for operators to identify Tight System Conditions• Release of all applicable Operating Reserves at the Bid Cap Price based on Operator trigger <p>DAM and RTM Reliability Demand Response Resource (RDRR) Dispatch and Real-Time Price Impacts</p> <ul style="list-style-type: none">• Commit and dispatch 60 minute RDRR in HASP• Commit and dispatch 15 minute and 5 minute RDRR resource dispatch in RTPD• Allow the operator enable the RDRR dispatch button• Allow RDRR to set price in RTPD and RTD even if it is discrete <p>OASIS Reports and Planning</p> <ul style="list-style-type: none">• Publish gross import/export by Tie by BAA for CAISO from IFM, RTPD,RTD

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System	High Level Changes
Settlements	<p>RTM Import & Export Market Incentives during Tight System Conditions</p> <ul style="list-style-type: none"> Identify interties that are eligible for a Bid Cost Make-Whole Payment Calculate Make-Whole Energy for RTM incremental Import and Decremental Export Interties Calculate Make-Whole Prices for RTM incremental Import and Decremental Export Interties Provide Make-Whole Payment for the RTM Incremental Import and Decremental Export Interties Determine Make-Whole Payment exclusions for the RTM Incremental Import and Decremental Export Interties Process Make-Whole Payment to appropriate BAAs Allocate Make-Whole Uplift Cost to CAISO measured demand or EIM Entity Establish capability to suspend Make-Whole payment rule provisions <p>DAM and RTM Reliability Demand Response Resource (RDRR) Dispatch and Real-Time Price Impacts</p> <ul style="list-style-type: none"> Leverage existing functionality as PDR to exclude BCR for Hourly RDRR Leverage existing functionality as PDR to include BCR for 15 minute RDRR
ALFS	<p>DAM and RTM Reliability Demand Response Resource (RDRR) Dispatch and Real-Time Price Impacts</p> <ul style="list-style-type: none"> Incorporate the RDRR and PDR market award into market load forecast
OASIS	<p>OASIS Reports and Planning</p> <ul style="list-style-type: none"> Report grow exports and imports by intertie for CAISO

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Milestone Type	Milestone Name	Dates	Status
Board Approval	Obtain Board of Governors Approval	Mar 24 - 25, 2021	
External BRS	Post Draft External BRS	Feb 25, 2021	
	Post External BRS v1.0	Mar 15, 2021	
Tariff	FERC Filing	Week of March 29	
Config Guides	Post Draft Config Guides	Apr 05, 2021	
Tech Spec	Publish Technical Specifications	Apr 05, 2021	
BPMs	Post Draft BPM changes	Apr 20, 2021	
External Training	Deliver External Training	Apr 21, 2021	
Market Sim	Market Sim Window	Apr 26, 2021 - May 21, 2021	
Production Activation	Summer 2021 Readiness Initiative	Jun 01, 2021 *	

* Go Live date to be finalized with full implementation plan

Summer 2021 Readiness Initiative Schedule

Milestone	Date
Comments due – draft final proposal	Feb 26
Stakeholder call – Draft tariff and BRS	Feb 26
Comments due – draft tariff	March 3
Call to adopt MSC opinion	March 8*
Post revised draft tariff language	March 10
Comments due – revised draft tariff	March 17
Stakeholder call – revised draft tariff	March 18
EIM Governing Body Meeting	March 10
CAISO Board of Governors Meeting	March 24 - 25
FERC filing	Week of March 29
Implementation	June 1, 2021

*Tentative

- Submit comments on the draft final proposal and draft tariff language using templates linked on the initiative [webpage](#).
- Stakeholders can provide feedback on the BRS through the RUG forums or in CIDI.