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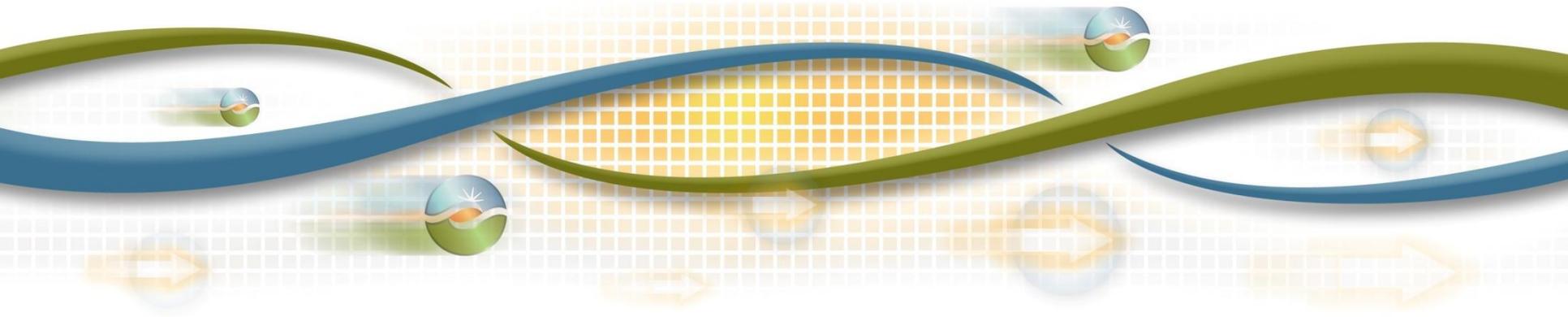# Release User Group Agenda

April 25th, 2017   *10:00 a.m.–11:00 a.m.* (Pacific Time)

Web Conference Information	Conference Call Information
URL: https://www.connectmeeting.att.com Meeting Number: 8665282256 Access Code: 5251941	Domestic Call In: (866) 528-2256 International Call In: (216) 706-7052 Access Code: 5251941

Release User Group Agenda

April 25th, 2017   *10:00 a.m. – 11:00 a.m. (Pacific Time)*

Time	Topic	Facilitator
10:00 – 10:05	Agenda & ISO Roll call	Janet Morris
10:05 – 10:45	Release Plan	Adrian Chiosea Brett Bruderer Michael Lucas Joanne Alai Marcelo Da Costa Raymond Riley Marci Stuckey John Williams Christopher McIntosh Jami Herguth Prince Phillip Sandhya Balasubramanian Eureka Cullado Indu Nambiar Justin Wong LuAnn Rivera Cynthia Hinman Trang Deluca

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The ISO offers comprehensive training programs

Date	Training
May 3	Settlements 101
May 4	Settlements 201
May 24-25	Get to Know the ISO
Jul 6	Welcome to the ISO - webinar
Aug 16	Settlements 101
Aug 17	Settlements 201

All classes are offered at our Folsom, CA location unless noted otherwise.
Training calendar - http://www.caiso.com/participate/Pages/Training/default.aspx
Contact us - CustomerTraining@caiso.com

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Release Plan 2017

Independent 2017

- MRI-S ACL Groups + CPG Enhancements (formerly OMAR Replacement)
- Administrative Pricing Policy Update
- RIMS Functional Enhancements
- Black Start and System Restoration Phase 2

Spring 2017

- RTD Local Market Power Mitigation (LMPM) Enhancements
- CRR Clawback Modifications
- Forecasting & Data Transparency Improvements (PIRP System Decommissioning)
- Metering Rules Enhancement

Fall 2017 (11/1/17)

- EIM Portland General Electric (PGE) – 10/1/17
- Bidding Rules Enhancements – Part B
- Reliability Services Initiative 2017
- Commitment Cost Enhancement Phase 3
- RM & EIM 2017 Enhancements
- Gas Burn Report
- SIBR UI Upgrade

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Release Plan – 2018 and subject to further planning

Spring 2018
- EIM 2018 Idaho Power Company

Fall 2018 – tentative, subject to impact assessment
- Contingency Modeling Enhancements
- Flexible Resource Adequacy Criteria and Must-offer Obligation Phase 2
- Commitment Costs and Default Energy Bid Enhancements
- ADS User Interface Replacement
- CIRA Technology Upgrade
- Energy Storage and DER Phase 2

Spring 2019
- EIM 2019 Seattle City Light
- EIM 2019 Balancing Authority of Northern California (BANC)

Fall 2019 – tentative, subject to impact assessment
- Regional Integration and EIM Greenhouse Gas Compliance
- Transmission Access Charge Options
- Generation Contingency and Remedial Action Scheme
- Frequency Response Phase 2

Subject to further release planning:
- DRS Replacement

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2017 - MRI-S ACL Groups+ CPG Enhancements

Project Info	Details/Date
Application Software Changes	The MRI-S metering (MRI-S) application cannot currently support ACL (Access Control List) groups functionality for defining a subset of resources belonging to an SCID. Enhancements to the Application Identity Management (AIM) application will enable the use of ACL groups for SCID-level read-only access for MRI-S. A customer partnership group will be scheduled to address the upcoming market sim. OMAR Online will be decommissioned four months after the May 1st re-opening of the MRI-S Metering, meaning August 31, 2017.
BPM Changes	None
Business Process Changes	Potential Level-II business process changes under – • Manage Market & Reliability Data & Modeling • Manage Operations Support & Settlements

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board Approval	N/A	
BPMs	BPMs	N/A	
External BRS	Post External BRS	Nov 14, 2016	✓
Tariff	Tariff	N/A	
Config Guides	Config Guide	N/A	
Tech Spec	Publish Tech Specs	Nov 02, 2016	✓
Market Simulation	MRI-S Metering Enhancements – MRI-S API MRI-S Metering Enhancements – MRI-S UI	Mar 13, 2017 – May 26,2017 May 1, 2017 – May 26,2017	
Production Activation	Phase 1 - ACL Groups	Mar 10, 2017	✓
	Phase 2 - MRI-S Metering Enhancements	May 30, 2017	

MRI-S ACL Groups + CPG Enhancements

#	System	Summary	Status	Estimated Fix Date
1	MRI-S	Implementation of the requirement stated in MRIS-BRQ085 for allowing users within the same organization to view the batch submission status is being delayed in market simulation pending further security validations.	Open	5/1/2017
2	MRI-S	The error description for error code 1028 incorrectly has X and Y instead of the actual meter value and PMAX, respectively.	Open	5/1/2017
3	MRI-S	Intermittent issues with Export function in the UI not returning expected results.	Open	5/1/2017
4	MRI-S	UpdateSinceDateTime does not allow time input	Open	5/1/2017
5	MRI-S	IntervalEndTime for 3/12/2017 (DST Date) is not displaying correctly	Open	5/1/2017
6	MRI-S	Error generated when data is submitted for a resource that is valid till the end of the day in GMT	Open	5/1/2017

* ACL group creation to filter for a read only role at the resource level is not currently available

Per last fall's Customer Partnership Group discussions, the ISO will be not be performing any user access migration, including the current third party access in OMAR to AIM because:
- The platform and business logic for third party access are completely different between OMAR and AIM, so no automation is possible
- Any effort by the ISO would be manual, and would require heavy market participant involvement due to data integrity questions around security and third-party access concerns
- The data in OMAR is historical (aged) and therefore must be vetted by the Scheduling Coordinators to ensure its validity

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2017 – Administrative Pricing Policy Updates

Project Info	Details/Date
Application Software Changes	**MQS:** • *Part 1 (used under normal market conditions):* If there are less than 12 RTDs and 4 RTPDs missing – leverage existing process (last price used) • *Part 2 (used under normal market conditions):* If RTD prices are available copy over to RTPD; RTPD prices available copy over RTD. If neither RTPD or RTD prices are available use DA prices • *Part 3 (used Market Suspension conditions):* Use DA prices. If we don't have DA prices, revert to prior DA prices (awards and prices)
Business Process Change	Manage Markets and Grid
BPMs	Market Instruments, Market Operations

Milestone Type	Milestone Name	Dates	Status
Board Approval	BOG Approval	Dec 10, 2014	✓
BPMs	Post Draft BPM changes	Apr 26, 2017	
External BRS	Post External BRS	Mar 20, 2015	✓
Tariff	Tariff Approval	Jan 30, 2017	✓
Config Guides	Prepare Draft Configuration Guides	Dec 6, 2016	✓
Tech Spec	Publish Tech Specs	N/A	
Market Sim	Market Sim Window	N/A	
Production Activation	Administrative Pricing Policy Updates	May 2, 2017 (FERC extension filed)	

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2017 – RIMS Functional Enhancements

Project Info	Details/Date	Status
Application Software Changes	Functional enhancements resulting from the Customer Partnership Group CPG. More details to be provided in the future.	
BPM Changes	Generator Interconnection and Deliverability Allocation Procedures Generator Interconnection Procedures Managing Full Network Model Metering Generator Management Transmission Planning Process	
Customer Partnership Group	10/16/15	✔
Application and Study Webinar	3/31/16	✔

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board approval not required	N/A	
BPMs	Generator Interconnection and Delivery Allocation	Apr 29, 2016	✔
External BRS	External BRS not Required	N/A	
Tariff	No Tariff Required	N/A	
Tech Spec	No Tech Specifications Required	N/A	
Production Activation Ph1	RIMS5 App & Study	Mar 21, 2016	✔
Production Activation Ph2	RIMS5 Queue Management, Transmission and Generation	Dec 14, 2017	

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Black Start and System Restoration Phase 2

Project Info	Details/Date
Application Software Changes	**Settlements:** • Modifications to existing charge codes for Black Start capacity and Black Start allocations will need to occur. **MPP (Market Participant Portal):** • Possibility to use current functionality for receiving RMR invoices for Black Start units.
BPM Changes	**Definitions & Acronyms:** • Revision of the the following defintiiosn to match the Tariff langage: 　• Ancillary Services (AS) 　• Black Start Generator 　• Black Start Generating Unit 　• Interim Black Start Agreement 　• Reliability Services Costs **Settlements & Billing:** • Pending Settlements review. Revisions will be directly based on Tariff changes.
Business Process Changes	N/A

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board approval	May 1, 2017	
BPMs	BPM Changes Required	N/A	
External BRS	External BRS not Required	N/A	
Tariff	Tariff Changes Required	N/A	
Tech Spec	No Tech Specifications Required	N/A	

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Spring 2017 Release – Overview

	Board Approval	BPMs	External BRS	Tariff	Config Guide	Tech Spec	Market Sim	Production Activation
Spring 2017 Release								
RTD LMPM Enhancements	3/24/16	11/4/16	4/5/16	FERC approved effective date of 4/1/17	N/A	4/14/16	2/7/17 - 2/24/17	5/2/17 (FERC extension filed)
CRR Clawback Modifications	6/28/16	2/10/17	11/29/16	FERC approved effective date of 4/1/17	N/A	N/A	N/A	
Forecasting and Data Transparency Improvements (PIRP Decommissioning)	N/A	9/6/16	6/29/15	N/A	N/A	4/15/16	4/4/17 - 4/18/17	4/20/17
Metering Rules Enhancement	12/14/16	2/2/17	N/A	Filed with FERC on 2/8/17	N/A	N/A	N/A	4/10/17

COMPLETE
N/A

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Project Info	Details/Date

Application Software Changes	**CMRI –** Display mitigated bids from RTD process
	
	OASIS (Open Access Sametime Information System): Display RTD reports for Market Clearing
	    MPM Nomogram/Branch Group Competitive Paths – Report will be enhanced to provide "RTD" results.
	
	    MPM Intertie Constraint Competitive Paths – Existing report will be enhanced to provide "RTD" results.
	
	    MPM Interval Reference Bus - This will be a **NEW** report to provide the 12 RTD interval results.
	
	Market Power Mitigation Status - Existing report will be enhanced to provide "RTD" results.
	RTM (Real Time Market)
	    RTPD: Perform the LMPM run as an integral part of the binding interval RTPD run
	    RTD: Proposed mitigation in RTD run would work the same way as the current RTPD run

BPM Changes	• Energy Imbalance Market (EIM): under the proposed RTD method, bids are not necessarily mitigated for the whole hour • RTD MPM will work the same way as the current RTPD MPM
Business Process Changes	• Manage Markets & Grid • ATF – System Operations: Add MPM Application to Real Time and annotate inputs and outputs • ATF – System Operations, Real Time: Add MPM to diagram with inputs and outputs • Level II – Manage Real Time Operations – maintain balancing area

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Spring 2017 - Real Time Dispatch Local Market Power Mitigation

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board of Governors (BOG) approval	Mar 24, 2016	✓
BPMs	Posted Market Operations BPM PRR 945	Nov 04, 2016	✓
External BRS	Post External BRS	Apr 05, 2016	✓
Tariff	Received FERC approval	Nov 08, 2016	✓
	Received FERC approval for 4/1	Jan 27, 2017	✓
	File updated APR 1 deployment date	Jan 13, 2017	✓
Tech Spec	Publish Technical Specification - OASIS	Apr 08, 2016	✓
	Publish Technical Specification - CMRI	Apr 14, 2016	✓
Market Sim	Market Sim Window	Feb 06, 2017 - Feb 24, 2017	✓
Production Activation	RTD - Local Market Power Mitigation Enhancement	May 2, 2017 - FERC extension filed	

Spring 2017 – Congestion Revenue Rights (CRR) Clawback

Project Info	Details/Date
Application Software Changes	**MQS/CRR Clawback:** If import bid <= day-ahead price, then the import is not considered a virtual award. If export bid >= day-ahead price, then the export is not considered a virtual award. If an import/export bid/self-schedule in real-time market is less than the day-ahead schedule, then the difference shall be still subject to CRR Clawback rule. CRR Clawback rule should include convergence bids cleared on trading hubs and load aggregation points in the flow impact used to determine if the 10% threshold is reached. Inform Market Participants of CRR annual allocation/auction for 2017.
BPM Changes	**Market Operations** Appendix F
Business Process Changes	Completed March 23, 2017

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board of Governors Approval	Jun 28, 2016	✓
BPMs	Posted Market Operations BPM PRR 972	Feb 10, 2017	✓
External BRS	Post External BRS	Nov 29, 2016	✓
Tariff	File Tariff	Jan 25, 2017	✓
Tariff	Receive FERC order	Mar 7, 2017	✓
Production Activation	CRR Clawback Modification	May 2, 2017 - FERC extension filed	

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Spring 2017 – Forecasting and Data Transparency Improvements (PIRP System Decommissioning)

Project Info	Details/Date
Application Software Changes: PIRP/CMRI	• Forecast Data Reporting (resource-level) that was performed in PIRP will be done in CMRI. Rolling Hour Ahead, Locked Hour Ahead, and Rolling Day-Ahead forecasts. • PIRP Decommissioning to occur in 2017 • CMRI to receive the Electricity Price Index for each resource and publish it to the Market Participants. • 60 Day PIRP / CMRI parallel production to start when AIM/ACL becomes available.
BPM Changes	CMRI Technical Specification; New APIs will be described.
Data Transparency • Independent changes, won't impact existing services • Will be made available in Production and cutover schedule is discretionary	Atlas Reference: 1. Price Correction Messages (ATL_PRC_CORR_MSG) 2. Scheduling Point Definition (ATL_SP) 3. BAA and Tie Definition (ATL_BAA_TIE) 4. Scheduling Point and Tie Definition (ATL_SP_TIE) 5. Intertie Constraint and Scheduling Point Mapping (ATL_ITC_SP) 6. Intertie Scheduling Limit and Tie Mapping (ATL_ISL_TIE) Energy • EIM Transfer Limits By Tie (ENE_EIM_TRANSFER_LIMITS_TIE) • Wind and Solar Summary (ENE_WIND_SOLAR_SUMMARY) Prices • MPM Default Competitive Path Assessment List (PRC_MPM_DEFAULT_CMP)
Business Process Changes	MPs will receive the VER reports from CMRI rather than PIRP.

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Spring 2017 – Forecasting and Data Transparency Improvements (PIRP System Decommissioning)

Project Info	Details/Date
User-Provisioning process for CMRI in preparation of Market Simulation and subsequently for production	• Client Services will reach out to the User Access Administrator (UAA) • Updated AIM User Guide, detailing how to create new ACL groups, was posted on February 21, 2017 - The market notice was posted on February 23, 2017 • If a user is at the SC level, there is no need to provision ACL access • Exceptions - (Non-SC Level Users) – provisioning via AIM will be required • Provisioning will be required to be done prior to Market Simulation • Provisioning for PIRP via AARF will discontinue on Feb 16, 2017 for Map Stage and Mar 20, 2017 for Production. • Participants should begin to download their PIRP data (all reports) as soon as possible as the data will not be available after June 20, 2017 • PIRP application including all the UI and API reports will be decommissioned June 20, 2017 • If you have any questions please contact your client services representative

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Spring 2017 – Forecasting and Data Transparency Improvements (PIRP System Decommissioning)

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board Approval	N/A	
BPMs	Publish Draft Business Practice Manuals (Market Instruments; PRR 936)	Sep 06, 2016	✓
External BRS	External Business Requirements	Jun 29, 2015	✓
Tariff	Tariff Filing Activities	N/A	
Config Guides	Settlements Configuration	N/A	
Tech Spec	Publish Technical Specifications (CMRI; Wind and Solar)	Apr 15, 2016	✓
	Publish Technical Specifications (CMRI: PIRP Decommissioning)	Feb 05, 2016	✓
Market Sim	CMRI Reports; VER Forecast & EPI (Fall 2016 Release)	Aug 23, 2016 - Sep 23, 2016	✓
	New Renewables CMRI reports and APIs Market Simulation	Apr 04, 2017 - Apr 18, 2017	✓
Production Activation	CMRI Reports; VER Forecast & EPI (Fall 2016 Release)	Oct 01, 2016	✓
	OASIS API Enhancements; 9 Reports	Dec 20, 2016	✓
	New Renewables CMRI reports and APIs Production Deployment	Apr 20, 2017	✓
PIRP Decommission	PIRP Decommissioning	Jun 20, 2017	

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	Board Approval	BPMs	External BRS	Tariff	Config Guide	Tech Spec	Market Sim	Production Activation
Fall 2017 Release								
EIM Portland General Electric	N/A	N/A	N/A	8/31/17	N/A	N/A	6/6/17 - 7/6/17	10/1/17
Bidding Rules Enhancements - Part B	3/25/16	6/15/17	1/13/17	6/1/17	6/27/17	• 4/3/17 (MF)	8/8/17 - 9/8/17	11/1/17
Reliability Services Initiative 2017	5/12/15		3/3/17 4/7/17			• 4/3/17 (OASIS)		
Commitment Cost Enhancement Phase 3	3/25/16		1/6/17 4/10/17	6/15/17		• 4/17/17 (CMRI)		
RM & EIM 2017 Enhancements	N/A	N/A	1/23/17 2/17/17 4/10/17	N/A		• 4/25/17 (CMRI)		
Gas Burn Reports	N/A	N/A	7/29/16	N/A	N/A	• 5/1/17 (OASIS)	N/A	
SIBR UI Upgrade	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

COMPLETE
N/A

Fall 2017 – EIM Portland General Electric

Project Info	Details/Date
Application Software Changes	Implementation of Portland General Electric as an EIM Entity.
BPM Changes	EIM BPM will be updated to reflect new modeling scenarios identified during PGE implementation and feedback from PGE.
Market Simulation	PGE continues Day in the Life and unstructured scenario testing in a non-production environment in preparation for Market Simulation.
Parallel Operations	August 1 – September 30, 2017

Milestone Type	Milestone Name	Dates	Status
Tariff	File Readiness Certification	Aug 31, 2017	
Market Sim	Market Sim Window	Jun 6, 2017 – Jul 6, 2017	
Parallel Operations	Parallel Operations Window	Aug 1, 2017 – Sep 30, 2017	
Production Activation	EIM - Portland General Electric	Oct 01, 2017	

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Fall 2017 - Bidding Rules Enhancements – Part B

Project Info	Details/Date

Application Software Changes	• **MasterFile:**
	    • Electric Region added to GRDT as non-modifiable
	
	• **OASIS:**
	    • Publish fuel regions (public information)

Business Process Change	• Manage Transmission & Resource Implementation • Manage Entity & Resource Maintenance Updates • Manage Full Network Model Maintenance
BPMs	Market Instruments, Reliability Requirements

Milestone Type	Milestone Name	Dates	Status
Board Approval	BOG Approval	Mar 25, 2016	✓
BPMs	Post Draft BPM changes	Jun 15, 2017	
External BRS	Post External BRS	Jan 13, 2017	✓
Tariff	File Tariff	Jun 01, 2017	
Config Guides	Prepare Draft Configuration Guides	Jun 27, 2017	
Tech Spec	Publish MF Technical Specifications	Apr 03, 2017	✓
Market Sim	Market Sim Window	Aug 08, 2017 - Sep 08, 2017	
Production Activation	Bidding Rules Part B	Nov 01, 2017	

Project Info	Details/Date

Application Software Changes	Developments under consideration include:
	
	Scope:
	Redesign of Replacement Rule for System RA and Monthly RA Process.
	• RA Process and Outage Rules for implementation for 2017 RA year.
	• CSP Offer Publication (RSI 1A scope)
	• Local and system RA capacity designation
	• RA showing requirements for small load serving entities (LSEs)
	• RA showing tracking and notification
	
	Impacted Systems:
	
	  • OASIS
	  • Settlements
	  • CIRA
	CIRA:
	• Modifications to the RA and Supply Plan to show breakdown of local and system. Validation rules need to be updated.
	• Update planned/forced outage substitution rules
	• Allow market participants to select how much system/local MWs to substitute.
	• Modification of UI screens to accommodate system/local MW split.
	• Enhance system to allow exemption from submission of RA Plans for LSE that have a RA obligation < 1 MW for a given capacity product.
	
	Settlements:
	• Splitting local from system in upstream RA system could potentially impact the RAAIM calculation.

BPM Changes	• Reliability Requirements: Changes to the monthly RA process • Settlements and Billing
Business Process Changes	**Manage Market & Reliability Data & Modeling** - Manage Monthly & Intra-Monthly Reliability Requirements - Manage Yearly Reliability Requirements

Fall 2017 - Reliability Services Initiative 2017

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board Approval	May 12, 2015	✓
BPMs	Post Draft BPM changes	Jun 15, 2017	
External BRS	Post Updated External BRS v1.1 (RSI 2)	Apr 07, 2017	✓
	Post Updated External BRS v1.3 (RSI 1B)	Mar 03, 2017	✓
	Post RSI 2017 External BRS v2.0	Apr 19, 2017	✓
Tariff	File Tariff	Jun 01, 2017	
Config Guides	Config Guide	Jun 27, 2017	
Tech Spec	Publish Technical Specifications	Apr 03, 2017	✓
Market Sim	Market Sim Window	Aug 08, 2017 - Sep 08, 2017	
Production Activation	RSI 2017	Nov 01, 2017	

Project Info	Details/Date

Application Software Changes	**Scope:**
	1. Clarify use-limited registration process and documentation to determine opportunity costs
	2. Determine if the ISO can calculate opportunity costs
	   • ISO calculated; Modeled limitation Start/run hour/energy output
	   • Market Participant calculated; Negotiated limitation
	3. Clarify definition of "use-limited"
	4. Change Nature of Work attributes (Outage cards)
	   • Modify use-limited reached for RAAIM Treatment
	   • Allow PDR to submit use-limit outage card for fatigue break.
	5. Market Characteristics
	   • Maximum Daily Starts
	   • Maximum MSG transitions
	   • Ramp rates
	Impacted Systems:
	   1. Master File: Set use-limited resource types and limits; Set market-based values
	   2. ECIC: Process use limited resource input values for and Receive opportunity cost adders from opportunity cost tool
	   3. CIRA: RAAIM exempt rule for "use-limited reached"
	   4. CMRI: Publish opportunity cost
	   5. IFM/RTN: Use market-based values MDS, MDMT and RR
	   6. SIBR: Add Opportunity cost adders on bid caps, remove daily bid RR
	   7. MasterFile: Set use-limited resource types and limits; Set market-based values
	   8. OMS: "Use-Limited Reached" nature of work attribute for Generation Outage Card
	   9. Settlements: Publish the actual start up, run hour and energy output for the use-limited resources
	   10. Opportunity cost calculator (OCC): Calculate and publish opportunity costs for start-up, MLC and DEB

BPM Changes	Market Instruments, Outage Management, Reliability Requirement, Market Operations
Business Process Changes	• Manage Market & Reliability Data & Modeling • Manage Markets & Grid

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board of Governors (BOG) Approval	Mar 25, 2016	✓
BPMs	Post Draft BPM changes	Jun 15, 2017	
External BRS	Post External BRS	Jan 06, 2016	✓
Tariff	File Tariff	Jun 15, 2017	
Config Guides	Config Guide	Jun 27, 2017	
Tech Spec	Publish ISO Interface Spec (Tech spec) – MF	Apr 03, 2017	✓
	Publish ISO Interface Spec (Tech spec) – CMRI	Apr 14, 2017	✓
Market Sim	Market Sim Window	Aug 08, 2017 – Sep 8, 2017	
Production Activation	Commitment Costs Phase 3	Nov 01, 2017	

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Fall 2017 – RM & EIM Enhancements 2017

Project Info	Details/Date
Application Software Changes	Address enhancements identified by policy, operations, technology, business and market participants. **Scope:** 1. Access & Integration Enhancements: EIM Entity Access in ALFS, MF, OASIS, WebOMS, and CMRI. 2. EIM data report enhancements to support market participant and EIM entity settlements 3. EIM software enhancements 4. Change to ETSR formulation to separate base energy transfer to distinct non-optimizable ETSRs. *Out of Scope:* 1. BAAOP provisioning in AIM 2. Joint Owned Unit/Shared BAA Resource Modeling
BPM Changes	Energy Imbalance Market: Access & Integration, Data Report Outage Management: Access & Integration Market Instruments: Access & Integration, Data Reports Market Operations: Data Report Settlements & Billing: Data Report
Business Process Changes	N/A

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Milestone Type	Milestone Name	Dates	Status
BPMs	Draft BPM changes	May 09, 2017	
	Post Draft BPM changes	May 31, 2017	
External BRS	Post External BRS	Jan 23, 2017	✓
	Post Updated (v1.2) External BRS to public site	Apr 10, 2017	✓
Config Guides	Config Guide	Jun 27, 2017	
Tech Spec	Publish Technical Specifications (OASIS)	Apr 03, 2017	✓
	Master File - Tech specs	Apr 03, 2017	✓
	ISO Interface Technical specification (CMRI)	Apr 17, 2017	✓
Market Sim	Market Sim Window	Aug 08, 2017 - Sep 08, 2017	
Production Activation	RM & EIM Enhancements 2017	Nov 01, 2017	

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Fall 2017 – Gas Burn Reports

Project Info	Details/Date
Application Software Changes	**CMRI** - implement ISO Market software functionality to calculate and present gas burn estimates to gas companies serving electric generation located within the CAISO BAA
Business Process Change	• Develop Infrastructure • Manage Market & Reliability Data & Modeling

Milestone Type	Milestone Name	Dates	Status
Board Approval	BOG Approval	N/A	
BPMs	Post Draft BPM changes	N/A	
External BRS	External Business Requirements	Jul 29, 2016	✓
Tariff	Receive FERC order	N/A	
Tech Spec	Publish Technical Specifications - CMRI	Apr 25, 2017	✓
	Publish Technical Specifications - OASIS	May 01, 2017	
Market Sim	Market Sim Window	N/A	
Production Activation	GenDB MF Consol and Gas Burn Report	Nov 01, 2017	

Fall 2017 – SIBR UI Upgrade

Project Info	Details/Date
Application Software Changes	**SIBR** – The CASIO will be upgrading the underlying SDK platform utilized for displaying the user interface. This latest SDK version will strengthen the security of the SIBR application and will improve compatibility with the latest version of Internet Explorer. It is anticipated no functional changes or API will be impacted by this upgrade.

Milestone Type	Milestone Name	Dates	Status
Board Approval	Board Approval	N/A	
BPMs	Publish Final Business Practice Manuals	N/A	
External BRS	Post Draft BRS	N/A	
Tariff	Receive FERC order	N/A	
Tech Spec	Publish Tech Specs	N/A	
Market Sim	Market Sim Window	N/A	
Production Activation	SIBR UI Upgrade	Nov 01, 2017	

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Spring 2018 – EIM Idaho Power Company

Project Info	Details/Date
Application Software Changes	Implementation of Idaho Power Company as an EIM Entity.
BPM Changes	EIM BPM will be updated if needed to reflect new modeling scenarios identified during Idaho Power implementation and feedback from Idaho Power.
Market Simulation	The ISO approved the Idaho Power network model and continues to make progress integrating the Idaho model into the ISO non-production environment in preparation for integration testing.
Parallel Operations	February 1, 2018 – March 30, 2018

Milestone Type	Milestone Name	Dates	Status
Tariff	File Readiness Certification	Feb 28, 2018	
Market Sim	Market Sim Window	Dec 01, 2017 - Jan 31, 2018	
Parallel Operations	Parallel Operations Window	Feb 01, 2018 - Mar 30, 2018	
Production Activation	EIM - Idaho Power	Apr 04, 2018	