Business Requirements Specification v1.0

Market Settlement Timeline Transformation (MSTT)

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1 Introduction

This Business Requirements Specification (BRS) supports the Market Settlement Timeline Transformation project.

1.1 Purpose

The CAISO proposes to change its market settlement timeline to reduce market participant financial exposure by producing initial settlement statements that will more closely approximate the final settlement, and allow sufficient time for the CAISO and market participants to resolve disputes.

The CAISO's current settlement timeline is compressed, which places potentially avoidable burdens on the CAISO and market participants. The compressed timeline causes the CAISO to publish initial statements of lower financial quality and to sometimes delay the publication of its settlement statements. These inefficiencies impact market participants because they must bear a financial burden of varying magnitude for many business days.

The CAISO and market participants also devote a large level of effort to correct data, re-calculate, process, and validate relatively small financial adjustments associated with optional re-calculations long after the settlement trade date has passed.

To resolve these issues, the CAISO proposes to calculate and publish two settlement statements within 70 business days after a trade date and re-align the due dates for settlement quality meter data.

- The CAISO proposes to consume available settlement quality meter data seven business days after a trade date and publish the initial statement nine business days after a trade date, allowing the CAISO to incorporate price corrections and quality meter data into its initial settlement statement.

- The CAISO proposes to accept final meter data 52 business days after a trade date and publish the last required settlement statement 70 business days after a trade date.

Under certain defined circumstances, the CAISO proposes to re-calculate and publish three settlement statements between 70 business days after a trade date and 24 months after a trade date, reducing the normal settlement life cycle from 36 months to 24 months.

- The CAISO proposes to optionally re-calculate and publish settlement statements 11 months after a trade date, 21 months after a trade date, and 24 months after a trade date.

2 Intellectual Property Ownership

Intellectual Property covers a broad array of information and materials, including written works, computer programs, software, business manuals, processes, symbols, logos, and other work products. Determining ownership of Intellectual Property is very important in preserving the rights of the California ISO, and helps to avoid Intellectual Property infringement issues. In considering the business requirements or service requirements to be performed, the business owner of the project must determine Intellectual Property Ownership.

2.1 Guidelines

Intellectual Property ownership must be considered by all applicable stakeholders before the services are performed. The level of analysis is two-fold:

- One, the business owner must determine if the Intellectual Property necessary to perform the services is owned by the California ISO or whether it must be obtained from a third party. Once the California ISO has secured the proper Intellectual Property rights to perform the services (i.e., the Intellectual Property is owned by the California ISO or we have licensed it from a third party), the California ISO can undertake the next step.

- The second step in the analysis is to consider whether new Intellectual Property will be created as a result of the business requirements or service requirements to be performed, and how that Intellectual Property will be owned and protected by the California ISO.

In order to assist the business owner in the analysis previously described, refer to the California Intellectual Property Policy available at: http://www.caiso.com/rules/Pages/LegalPoliciesNotices/Default.aspx, which provides a brief tutorial on what Intellectual Property is and how the California ISO can protect its Intellectual Property. Contact the Legal Department if you have any questions regarding Intellectual Property.

3 Details of Business Need/Problem

3.1 Description

Business Opportunity/Problem Statement:	

What:	CAISO and market participants devote a large level of effort to correct data along with re-calculate, process, and validate relatively small financial adjustments associated with optional re-calculations long after the settlement trade date has passed.
	
	To resolve these large efforts, CAISO proposes to calculate and publish two settlement statements within 70 business days after a trade date, and re-align the due dates for settlement quality meter data.
	   • CAISO proposes to consume available settlement quality meter data 7 business days after a trade date and publish the initial statement 9 business days after a trade date, which will allow CAISO to incorporate price corrections and quality meter data into its initial settlement statement.
	   • CAISO proposes to accept final meter data 52 business days after a trade date, and publish the last required settlement statement 70 business days after a trade date.
	Under certain defined circumstances, CAISO proposes to re-calculate and publish three settlement statements between 70 business days and 24 months after a trade date; reducing the current settlement life cycle from 36 months to 24 months.
	   • CAISO proposes to optionally re-calculate and publish settlement statements 11 months, 21 months, and 24 months after a trade date.

When:	With the November 2019 CAISO Board of Governors Draft Final Proposal approval, the project is projected to implement with Fall Release 2020 with an effective date of 1/1/2021.

Why do we have this opportunity / problem:	Altering the market settlement timeline provides opportunities to:
	   • Reduce market participant financial exposure by producing initial settlement statements that will closely approximate the final settlement.
	   • Allow sufficient time for the CAISO and market participants to resolve disputes.
	   • Extend flexibility in publishing settlement statements and weekly invoices.

Who does this opportunity / problem impact:	• External participants • ITPM / ITPD / Corporate Systems • Financial Reporting and Market Clearing • Treasury and Credit • Market Services • Market Settlement Production • Market Settlement Design and Configuration • Price Corrections and Settlement Disputes • Model & Contract Implementation

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4   Business Impacts

4.1   Business Practice Manual (BPM)

BPM	Description of Impact(s)
Credit Management and Market Clearing	Yes based on timeline changes.
Definitions & Acronyms	Section 3 – Definitions • Add "Initial Settlement Statement: T+9B" • Add "Recalculation Settlement Statement: T+70B" • Add "Recalculation Settlement Statement T+11M" • Add "Recalculation Settlement Statement T+21M" • Add "Recalculation Settlement Statement T+24M"
Energy Imbalance Market (EIM)	Yes based on timeline changes.
Market Instruments	Yes: the timing of billing.
Market Operations	No impact.
Metering	Yes based on timeline changes.
Reliability Requirement	Yes based on timeline changes.
Rules of Conduct Administration	Yes based on timeline changes.
Settlements & Billing	Section 2.3.2 – Schedule for Settlement Statement Publication Section 2.3.5.1.1 – Dispute Timing Section 2.3.6 – Billing & Payment Section 2.4 – Payment Calendars

4.2 Other

Impact	Description (optional)
Market Simulation	All Market participants will require structured Market Simulation.
Market Participant Impact	All market participants are impacted.
User Acceptance Testing (UAT)	MSP and Dispute Team Metering Team Market Services
Internal Training	Customer Svc and Training Team Help Desk Metering Team MSP
External Training	Webinar and CBTs
Policy Initiative?	Yes
Architectural Framework and Roadmap	Updates are needed to the framework and roadmap.

5 Business Requirements

Section 5 identifies the Business processes and associated business requirements elicited from business unit and subject matter expert team members. The requirements may represent high-level functional, non-functional, reporting, and/or infrastructure requirements.

5.1 Business Process: Manage Market Billing and Settlements

5.1.1 Business Requirements: Business Requirements

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
MSTT-BRQ001	From production go-live forward, the ISO shall publish: • the initial statement at T+9B, and • the last required statement at T+70B.	Core *(external)*	Settlements
MSTT-BRQ005	From production go-live forward and when optionally needed, the ISO shall publish: • the first optional statement at T+11M, • the second optional statement at T+21M, and • the third optional statement at T+24M.	Core *(external)*	Settlements
MSTT-BRQ010	The ISO shall consume available settlement quality meter data at 10:00 AM PST seven business days after the trade date. (T+7B) Implementation Note: data consumption includes 'non-PTO wheeling data'	Core *(external)*	Settlements/ MRI-Metering
MSTT-BRQ015	The ISO shall accept final meter data, **by 23:59:59,** fifty-two business days after a trade date. (T+52B). *Implementation Note:* consumed by 70B.	Core *(external)*	Settlements/ MRI-Metering

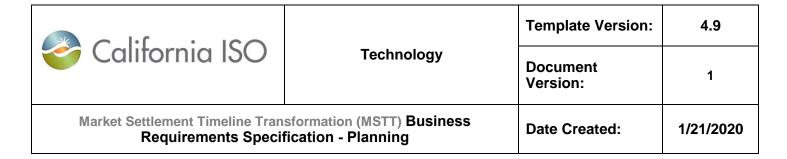| MSTT-BRQ016	The ISO shall accept final meter data 214 business days after a trade date. (T+214B). Implementation Note: consumed by 11M.	Core *(external)*	Settlements/ MRI-Metering
MSTT-BRQ020	When disputing the new initial statement (T+9B), the ISO shall accept Market participant submitted disputes up to 22 business after days T+9B.	Core *(external)*	Settlements/ CIDI
MSTT-BRQ025	When disputing the new last required statement (T+70B), the ISO shall accept Market participant submitted disputes up to 22 business after days T+70B	Core *(external)*	Settlements/ CIDI
MSTT-BRQ030	When disputing the new, first optional statement (T+11M), the ISO shall accept market participant submitted disputes up to 22 business after days T+11M.	Core *(external)*	Settlements/ CIDI
MSTT-BRQ035	When disputing the new, second optional statement (T+21M), the ISO shall accept market participant submitted disputes up to 22 business after days T+21M. Implementation Note: Last optional statement T+24M is not subject to dispute.	Core *(external)*	Settlements/CIDI
MSTT-BRQ040	For any trade date prior to production go-live, the ISO shall continue to publish: • the initial statement at T+3B, • the subsequent statement at T+12B, and • the last required statement at T+55B.	Core *(external)*	Settlements
MSTT-BRQ045	For any trade date prior to production go-live and when optionally needed, the ISO shall continue to publish: • the first optional statement at T+9M, • the second optional statement at T+18M,	Core *(external)*	Settlements

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ID#	Business Feature	Req. Type	App.
	• the third optional statement at T+33M, and • the last optional statement at T+36M.		
MSTT-BRQ050	The ISO shall create a payment calendar that will have timeline overlap between the existing and the new timelines.	Core *(external)*	Payment Calendar
MSTT-BRQ055	To support the new settlements timeline, the ISO shall post an updated recalculation log to the www.CAISO.com Settlements webpage.	Core *(external)*	Recalculation Log
MSTT-BRQ066	The ISO shall create a RMR payment calendar that will have timeline overlap between the existing and the new timelines.	Core *(external)*	Payment Calendar

5.2 Business Process: Manage Market Clearing

5.2.1 Business Requirements: Market Clearing

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
MSTT-BRQ390	When calculating both the daily and monthly average daily charges, the System shall utilize the '61 days lookback period' for each of the new timeline statement dates.	Core *(external)*	Market Clearing
MSTT-BRQ395	For the new timeline's optional twenty-four month statement (T+24M), the ISO shall be able to manually generate the '24 Months Historical Report' for internal use only. *Implementation Note:* The Historical Report is also known as the Credit Reporting report.	Core *(external)*	Market Clearing
MSTT-BRQ400	For invoicing, the ISO shall update the deviation interest (DI) Period End Program to	Core *(external)*	Market Clearing

	accommodate the current timeline and new timeline statement dates.		

5.3 Business Process: Manage Market Billing and Settlements

5.3.1 Business Requirements: MRI-S Settlements

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
MSTT-BRQ415	The ISO shall update the Post Date Calculation for each new timeline statement date: • T+9B, • T+70B, • T+11M, • T+21M, and • T+24M.	Core *(external)*	MRI-S Settlements
MSTT-BRQ420	The System shall post each new timeline trade date to the market system and align the new timeline statement dates to the payment calendar.	Core *(external)*	MRI-S Settlements

5.4 Business Process: Manage Market Billing and Settlements

5.4.1 Business Requirements: OASIS

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
MSTT-BRQ445	The ISO shall retain twenty-seven (27) months of OASIS data for each new timeline trade date. *Implementation Note:* The existing 39-month OASIS data retention schedule will be retained for all pre go-live trade dates.	Core *(external)*	OASIS

5.5 Business Process: Manage Market Billing and Settlements

5.5.1 Business Requirements: CMRI

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
MSTT-BRQ450	For each trade date from the project's production go-live date and forward, the System shall retain the trade date's data for twenty-seven (27) months. *Implementation Note:* retaining data for 27 months will support the future (To-Be) settlements timeline.	Core *(external)*	CMRI
MSTT-BRQ455	For each trade date *prior to* the project's production go-live date, the System shall retain the trade date's data for thirty-nine (39) months. *Implementation Note:* retaining data for 39 months will support the current (As-Is) settlements timeline. The final trade date would be the day before the production go-live date.	Core *(external)*	CMRI
MSTT-BRQ460	For trade dates occurring before the project's go-live date, the System shall purge the trade date's data after thirty-nine (39) months. *Implementation Note:* purging after 39 months supports the current (As-Is) settlements timeline.	Core *(external)*	CMRI
MSTT-BRQ465	For trade dates beginning on, and after, the project's go-live date, the System shall purge the trade date's data after twenty-seven (27) months. *Implementation Note:* purging after 27 months supports the future (To-Be) settlements timeline.	Core *(external)*	CMRI

MSTT-BRQ470	For trade dates beginning on, and after, the project's go-live date, the System shall publish the post day ahead CRN RTM report on T+7B.	Core *(external)*	CMRI

5.6 Business Process: Manage Dispute Analysis & Resolution

5.6.1 Business Requirements: CIDI

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
MSTT-BRQ515	The CIDI Dispute record's **External view** shall be updated to support the new statement dates T+9B, T+70B, T+11M, T+21M, and T+24M for the following fields: • Statement Disputed • Correction Statement • Statement Publication Date • Adjustment Publication Date	Core *(external)*	CIDI
MSTT-BRQ530	For statements published at T+9B, the System shall auto-reject any dispute submitted after the initial statement dispute deadline of 31B (9B + 22B) from the trade date.	Core *(external)*	CIDI
MSTT-BRQ535	For statements published at T+70B, the System shall auto-reject any dispute submitted after the last required statement dispute deadline of 92B (T+70B + 22B) from the trade date.	Core *(external)*	CIDI
MSTT-BRQ540	For statements published at T+11M, the System shall auto-reject any dispute submitted after 256B (T+11M + 22B) from the trade date.	Core *(external)*	CIDI
MSTT-BRQ545	For statements published at T+21M, the System shall auto-reject any dispute submitted after 468B (T+21M + 22B) from the trade date.	Core *(external)*	CIDI

5.7 Business Process: Market/Business Simulation

This section shall provide a basis for the development of the Market/Business Simulation Scenarios.

These requirements will provide guidance on the market participant impacts, inputs into the Scenarios, endpoints to the Scenarios, and reasons for potential Scenarios. The guidance on market participant impacts shall be gathered from the requirements that impact rules, interfaces, applications/reports, new system processes, new/modified data models and new user roles. The source and sink systems shall be determined through the development of the system context diagram and the web service requirements. The 'Reason for the Potential Scenario' column will be to offer guidance regarding what potential scenarios, and their context, may be needed for this project. This section applies to all policy development projects, market enhancements, technology enhancements, operation enhancements, Energy Imbalance Market (EIM) implementations, and Reliability Coordination (RC) service implementations.

In the 'Reason for Potential Scenario' column, the Business Analyst must select one or more of the following reasons:

1. **Rule Impacts**: Generalized changes in market rules, bidding rules, settlements rules, market design changes, or other business rules.

2. **Interface changes**: Changes that impact templates (e.g. the Resource Adequacy {RA} supply plan), user interface (UI), and application programming interface (API) (e.g. retrievals of new shadow settlement data).

3. **New application/report**: Changes that cause addition/modification of market software or reports, especially when market data input is required by the market participant.

4. **New system process**: Modification of data flow in systems, especially if the new process requires the market participant to demonstrate proficiency prior to production.

5. **New/Modified model data**: Addition or substantial modification of model data as a market solution provided by the ISO.

6. **New user role**: The addition or modification of access permissions for a user role applied to specific business units within an EIM entity or market participant organization (e.g. Load Serving Entity (LSE) as a Local Regulatory Authority (LRA) role). Scenarios are beneficial for market participants taking on a new function or process within their organization.

5.7.1 Business Requirements

ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
MSTT-BRQ665	**Publish initial statement** On the designated trade date, CAISO shall publish the T+9B initial statement, which will now include the following charge codes:	Settlements	MRI-S	**New system process**

	- Unaccounted for Energy (UFE) - Metered Sub System Load Following (MSSLF) - Deviation Interest (DI)			
MSTT-BRQ670	Meter data submission now reflected in T+9B initial statement.	Settlements	MRI-S	**Existing system process**
MSTT-BRQ675	**Publish recalculation statement and invoice** On the designated trade date, CAISO shall publish the T+70B statement.	Settlements	MRI-S	**New system process**