

Settlement Quality Meter Data (SQMD) Plan Template Tutorial

Settlement Quality Meter Data (SQMD) Plan Template		
Participation:		
<input type="checkbox"/> CAISO Balancing Authority Area (BAA)	<input type="checkbox"/> Energy Imbalance Market (EIM)	NRI Project # _____
<input type="checkbox"/> New Scheduling Coordinator Metered Entity (SCME)	<input type="checkbox"/> Repower	
<input type="checkbox"/> Modification to Meter Data Interval	<input type="checkbox"/> Add Generation Capacity	
<input type="checkbox"/> Conversion (CAISOME to SCME)	<input type="checkbox"/> Modification(s) Only (Existing; Prior Approval obtained)	
<i>Any existing SQMD Plan Template that has been previously "approved" that will be affected by any selection captured above i.e. DLAP/ELAP will need to be resubmitted for CAISO approval using the Modification(s) Only.</i>		



Participation:

- Select appropriate market participation associated with Market Resource ID. Options are CAISO Balancing Authority Area (CAISO BAA) or the Energy Imbalance Market (EIM).
- Provide the **NRI Project #:**
 - This number will be assigned after the successful completion of a Project Details Form located at: <http://www.caiso.com/Documents/ProjectDetailsForm.docx> associated with your participation type i.e. New Market Resource, Repower, etc.
 - EIM On-boarding Only:** To obtain your assigned NRI Project Number associated with each individual market resource ID participating within EIM, complete the New Resource Implementation Energy Imbalance Market Onboarding Project Loader (*EIM Onboarding Only*) spreadsheet at: <http://www.caiso.com/Documents/NewResourceImplementationEnergyImbalanceMarketOnboardingProjectLoader.xlsx>
- Check the appropriate box to indicate if the market resource is related to a New Market Resource, Repower, Modification to Meter Data Interval, Add Generation Capacity, Conversion (CAISOME to SCME), or Modification(s) Only (Existing; Prior Approval obtained).

Contact Information:	
Name:	Title:
Phone Number:	Email Address:



Contact Information:

Provide all related contact information associated with the individual who can speak on behalf of the information captured within the SQMD Plan Template. This individual will be the main point of contact associated with the project. *Status updates and final "Acceptance" notifications will be submitted once all information has been successfully submitted and validated.

**Must be listed as a "Project Contact Name" on New Resource Implementation (NRI) Project Details Form or NRI Energy Imbalance Market Onboarding Project Loader.*

Market Resource Attributes:		
Resource Type: <Select Resource Type>	If Intratie, was an agreement obtained? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Market Resource ID:	Effective Date:	Scheduling Coordinator ID:
EIM Only: Physical Balancing Authority (BA) Location: <input type="checkbox"/> Internal <input type="checkbox"/> External; Associated BA		



Market Resource Attributes:

- Resource Type:** select category associated with market resource participating within CAISO BAA or EIM i.e. Generation, Load, Intertie, and Intratie.
- Intratie:** Please indicate if an agreement was obtained as required by Tariff Section 10.3.14.1 *UDC and TO Agreements*. If no agreement can be reached, the resource must be a CAISO Metered Entity
- Market Resource ID (mRID):** Identification characters assigned by the CAISO to Generating Units, Loads, Participating Loads, Proxy Demand Resources, Reliability Demand Response Resources, System Units, System Resources, and Physical Scheduling Plants.
- Effective Date:** the first possible active date of market participation related to the Market Resource ID.
- Scheduling Coordinator ID (SCID):** The individual Identification Code provided by the CAISO to the Scheduling Coordinator associated to the Market Resource ID.
- EIM Only:** Identify "physical" location of market resource (Generator Unit) to that of EIM Entities physical boundary. I.e. associated with EIM entities BA, but physically located within another BA.

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Format for Data Submission (Tariff Section 10.3.2.2):	
Interval Size	<input type="checkbox"/> 5-min <input type="checkbox"/> 15-min <input type="checkbox"/> 60-min
Unit of Measure (UOM)	<input type="checkbox"/> kWh <input type="checkbox"/> MWh



Format for Data Submission (Tariff Section 10.3.2.2):

- Interval Size:** Select appropriated interval sized affiliated with the SQMD associated with the Market Resource ID. The elected interval may not be a granularity lower than what may be programmed on the Scheduling Coordinator Metered Entity's physical meter(s) or as specified in the applicable Business Practice Manual.
- Unit of Measure:** Select the measurement type of SQMD associated with the Market Resource ID. Kilowatt hour (kWh) or Megawatt hour (MWh).

SQMD Plan (Tariff Section 10.3.7.1):
<p>Calculation(s)/Algorithm(s): Please identify all metering devices associated with market resource, including supporting algorithms and/or calculations used to produce settlement quality meter data (SQMD) affiliated with the market resource ID.</p> <p><i>Single Line Diagram (SLD) with professional engineer stamp (or equivalent) depicting the physical elements and relationships among the metering device(s) is required (excluding "Load" resource type). SLD must be submitted as a separate document.</i></p>
<p>Meter Data Processing: Please describe the processes associated with the collection, validation, and submission of SQMD.</p>
<p>Audits and Tests: Please provide plans and schedules associated with metering devices in support of quality assurance.</p>



SQMD Plan (Tariff Section 10.3.7.1):

- Calculation(s)/Algorithm(s):** captures how the mRID SQMD is calculated. Example: mRID = the sum of Meter 1 + Meter 2 + Meter 3 – Meter 4. Transformer and Line losses may apply based on meter position to Generator Step-Up Transformer (GSU) and distance to Point of Interconnection (POI).
- Meter Data Processing** – provide a description on how SQMD is calculated from the source (revenue quality meter data) through the validation process (listed out validation measures performed) i.e. Power Outage, Long/Short Interval, Time Reset etc. and then exported to the CAISO for settlement processing according to the CAISO Settlement Payment Calendar.
- Audits and Tests** – List all plans and tests outlined within Tariff Sections 10.3.7.1 SQMD Plan, 10.3.7.5 Annual Affirmation, and 10.3.10.1 Audit and Testing by Scheduling Coordinator.

Modification(s) Only: Note: Design changes, including equipment and/or data collection modifications shall be subject to CAISO review and approval prior to implementation via the submission of a revised SQMD Plan Template to remain valid per Tariff Section 10.3.7.3 SQMD Plan Modifications.
<p>Please identify and describe related update(s) and/or modification(s):</p>



Modification(s) Only:

- A "New" NRI Project Number must be established to process "modifications" affiliated with an existing SQMD Plan that has obtained prior approval.
- In addition to this section, the following sections must also be completed:
 - Participation: All relevant fields
 - Contact Information: All sections
 - Market Resource Attributes: Market Resource ID
 - Miscellaneous section(s) of this template associated with the modification(s). I.e. meter replacement, specific details should also be captured within the "Metering Device(s)" section of this template.

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Metering Device(s):
1) Identifier: _____
2) Manufacturer: _____ Model _____ Accuracy class _____
3) Does device meet your Local Regulatory Authority (LRA) standards?
a. <input type="checkbox"/> Yes LRA: _____
b. <input type="checkbox"/> No, but meets or exceeds existing CAISOME metering specifications
c. <input type="checkbox"/> Other. Please provide additional information _____
4) Interval Size: <input type="checkbox"/> < 5-min <input type="checkbox"/> 5-min <input type="checkbox"/> 15-min <input type="checkbox"/> 60-min
5) Current Transformer Accuracy: _____ Potential Transformer Accuracy: _____
6) Compensation Programmed (Losses, Credits, Distribution Factor, etc.): <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please describe. _____



Metering Device(s):
<ul style="list-style-type: none"> Meter Identifier: Unique identifier associated with metering device. Metering Manufacturer - Provide full name of company associated with metering device Manufacturer Model- capture model type associated with metering device Accuracy Class: Provide related value i.e. 0.2 Accuracy Class etc., Local Regulatory Authority (LRA) Standards: Yes, No, Meets or exceeds CAISOME specifications, Other (Provide additional information). Programmed Interval Size: Select programmed interval size associated with metering device i.e. 5, 15, or 60-min interval. Current Transformer and Potential Transformer Accuracy: Provide accuracy rating i.e. 0.3% Compensation Programmed: If "Yes" please describe.