## Settlement Quality Meter Data (SQMD) Plan Template Tutorial

### Participation:
- **CAISO Balancing Authority Area (BAA)**
- **Energy Imbalance Market (EIM)**
- **NRI Project #**
- **New Scheduling Coordinator Metered Entity (SCME)**
- **Repower**
- **Modification to Meter Data Interval**
- **Add Generation Capacity**
- **Conversion (CAISOME to SCME)**
- **Modification(s) Only** (Existing; Prior Approval obtained)

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.

### Contact Information:
- **Name:**
- **Title:**
- **Phone Number:**
- **Email Address:**

### Market Resource Attributes:
- **Resource Type:** [Select Resource Type]
- **If Intratie, was an agreement obtained?** [Yes] [No]
- **Market Resource ID:**
- **Effective Date:**
- **Scheduling Coordinator ID:**

**EIM Only:** Physical Balancing Authority (BA) Location: [Internal] [External; Associated BA]

### Resource Types:
- **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](http://www.caiso.com/Documents/ProjectDetailsForm.docx), associated with your participation type i.e. New Market Resource, Repower, etc.
- **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:
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 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):  

<table>
<thead>
<tr>
<th>Interval Size</th>
<th>5-min</th>
<th>15-min</th>
<th>60-min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit of Measure (UOM)</td>
<td>kWh</td>
<td>MWh</td>
<td></td>
</tr>
</tbody>
</table>

SQMD Plan (Tariff Section 10.3.7.1):  

- **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.

  - **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.**

- **Meter Data Processing:** Please describe the processes associated with the collection, validation, and submission of SQMD.

- **Audits and Tests:** Please provide plans and schedules associated with metering devices in support of quality assurance.

Modification(s) Only:  

- **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.

  - 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. [ ] Yes LRA: ____
   b. [ ] No, but meets or exceeds existing CAISOME metering specifications
   c. [ ] Other. Please provide additional information ____

4) Interval Size: [ ] < 5-min [ ] 5-min [ ] 15-min [ ] 60-min

5) Current Transformer Accuracy: ____ Potential Transformer Accuracy: ____

6) Compensation Programmed (Losses, Credits, Distribution Factor, etc.): [ ] Yes [ ] No
   If yes, please describe: ____