

California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff

**Table of Contents**

10.	Metering .....	2
10.1	General Provisions .....	2
10.1.1	Role of the CAISO .....	2
10.1.2	Meter Data Retention by the CAISO .....	2
10.1.3	Netting .....	3
10.1.4	Meter Service Agreements .....	4
10.1.5	Access to Meter Data .....	4
10.1.6	Failure of CAISO Facilities or System .....	5
10.1.7	Provision of Statistically Derived Meter Data .....	5
10.2	Metering for CAISO Metered Entities .....	6
10.2.1	Responsibilities of CAISO Metered Entities .....	6
10.2.2	Duty to Install and Maintain Meters .....	7
10.2.3	Metering Standards .....	8
10.2.4	Certification of Meters .....	8
10.2.5	CAISO Authorized Inspectors .....	10
10.2.6	Metering Communications .....	10
10.2.7	Format of Meter Data .....	11
10.2.8	Security and Meter Data Validation Procedures .....	11
10.2.9	Validation, Estimation and Editing of Meter Data .....	13
10.2.10	Low Voltage Side Metering .....	14
10.2.11	Audit, Testing Inspection and Certification Requirements .....	15
10.2.12	Exemptions .....	15
10.2.13	Maintenance of Metering Facilities .....	15
10.2.14	Installation of Additional Metering Facilities .....	16
10.3	Metering For Scheduling Coordinator Metered Entities .....	16
10.3.1	Applicability .....	16
10.3.2	Responsibilities of Scheduling Coordinators and the CAISO .....	17
10.3.3	Loss Factors .....	18
10.3.4	Load Profile Authorization .....	19
10.3.5	Communication of Meter Data .....	19
10.3.6	Settlement Quality Meter Data Submission .....	19
10.3.7	Meter Standards .....	22
10.3.8	Access to Meter Data .....	24
10.3.9	Certification of Meters .....	25
10.3.10	Requirement for Audit and Testing .....	25
10.3.11	Scheduling Coordinator to Ensure Certification .....	26
10.3.12	[Not Used] .....	27
10.3.13	[Not Used] .....	27
10.3.14	Approval By LRA Of Security And Validation Procedures .....	27
10.3.15	[Not Used] .....	27
10.3.16	[Not Used] .....	27
10.3.17	Meter Identification .....	27
10.4	Exemptions .....	28
10.4.1	Authority to Grant Exemptions .....	28
10.4.2	Guidelines for Granting Exemptions .....	28
10.4.3	Procedure for Applying for Exemptions .....	29
10.4.4	Permitted Exemptions .....	29

## **10. Metering**

### **10.1 General Provisions**

An entity seeking to provide or process Energy, Demand, or Ancillary Services in the CAISO Markets must provide the CAISO with Meter Data. Based upon its eligibility and election, an entity provides the CAISO with either (a) Revenue Quality Meter Data as a CAISO Metered Entity or (b) Settlement Quality Meter Data as a Scheduling Coordinator Metered Entity. Pursuant to Section 10.2, the CAISO directly polls CAISO Metered Entities' certified revenue quality meters to acquire Revenue Quality Meter Data. Pursuant to Section 10.3, Scheduling Coordinators for Scheduling Coordinator Metered Entities collect and provide the CAISO with Settlement Quality Meter Data.

#### **10.1.1 Role of the CAISO**

The CAISO is responsible for establishing and maintaining the Revenue Meter Data Acquisition and Processing System (RMDAPS) and the Settlement Quality Meter Data Systems (SQMDS). RMDAPS will acquire Revenue Quality Meter Data for use in the CAISO's Settlement and billing process, and SQMDS acquires Scheduling Coordinators' Settlement Quality Meter Data. The CAISO is also responsible for the following for CAISO Metered Entities:

- (a) setting standards and procedures for the registration, certification, auditing, testing and maintenance of revenue quality meters and Meter Data servers; and
- (b) establishing procedures for the collection, security, validation and estimation of Meter Data.

#### **10.1.2 Meter Data Retention by the CAISO**

The CAISO will maintain a record of all Revenue Quality Meter Data and Settlement Quality Meter Data provided to it, as well as the Settlement Quality Meter Data it produces, for a period of 18 months on site at the CAISO's facilities and for a period which, at least, allows for the re-run of data as required by this CAISO Tariff and any adjustment rules of the Local Regulatory Authority governing the Scheduling Coordinators and their End-Use Customers and FERC. The CAISO will, on reasonable notice, provide a Scheduling Coordinator with access to Settlement Quality Meter Data (actual or Scheduling Coordinator estimated) provided that the Scheduling Coordinator requesting access represented the entity for which that data was provided at the time the data was provided to the CAISO.

### **10.1.3 Netting**

CAISO Metered Entities and Scheduling Coordinator Metered Entities may net Station Power only to the extent allowed by the Local Regulatory Authority and as provided below.

#### **10.1.3.1 Permitted Netting**

CAISO Metered Entities and Scheduling Coordinators may, when providing Meter Data to the CAISO, net kWh or MWh values for output and Station Power electrically connected at the same point, provided that the resource is on-line and producing sufficient output to serve all of its Station Power. Where permitted by the Local Regulatory Authority, CAISO Metered Entities and Scheduling Coordinators may, when providing Metered Data to the CAISO, include Station Power within the resource's wholesale Demand or output below zero (for dispatches to charge a storage resource, for example).

#### **10.1.3.2 Prohibited Netting**

CAISO Metered Entities or Scheduling Coordinators may not net values for output and Load that is not Station Power. CAISO Metered Entities or Scheduling Coordinators that serve third party Load connected to a resource's auxiliary system must add that third party Load to the resource or Generating Unit's output. Where a resource's Load or Station Power is served via a distribution line that is separate from the switchyard where the resource is connected, that resource and its Load and/or Station Power will not be considered to be electrically connected at the same point. The CAISO Metered Entity may add that third party Load to the resource's output either by means of a hard wire local meter connection between the metering systems of the third party Load and the resource or by requesting the CAISO to use RMDAPS to perform the addition. Scheduling Coordinators representing Scheduling Coordinator Metered Entities that serve third party Load connected to the auxiliary system of a resource must ensure that those Scheduling Coordinator Metered Entities add the Energy consumed by such third parties to output so as to ensure proper settlement of the gross output. The CAISO Metered Entity or the Scheduling Coordinator must ensure that the third party Load has Metering Facilities that meet the standards referred to in this Section 10 and the Business Practice Manuals.

#### **10.1.3.3 Permitted Netting for a Net Scheduled Generating Unit or a QF**

A Generating Unit that is a QF subject to an Existing QF Contract is subject to the revenue metering requirements set forth in the Existing QF Contract for the QF and is not subject to the revenue metering

requirements of Section 10. A QF Generating Unit that is not operating under the terms of an Existing QF Contract is subject to the metering requirements of Section 10 prohibiting the net metering of Generation and Load, except if it is subject to a Net Scheduled PGA. A Generating Unit that is a QF or a CHP Resource and that operates under the terms of a Net Scheduled PGA is eligible for net metering treatment. Notwithstanding Section 10.1.3.2, a Participating Generator with a Net Scheduled PGA may net the value for the Generation produced by each Net Scheduled Generating Unit listed in its Net Scheduled PGA and the value for the Demand of the Self-provided Load that is (i) served by the Net Scheduled Generating Unit and (ii) electrically located on the same side of the Point of Demarcation. The Participating Generator with a Net Scheduled PGA may satisfy the provisions of Section 10 for the installation of revenue metering by installing Metering Facilities at the Point of Demarcation; provided that the installed Metering Facilities satisfy the technical, functional, and performance requirements for Metering Facilities set forth in Section 10 and the applicable Business Practice Manual.

#### **10.1.4 Meter Service Agreements**

A CAISO Metered Entity shall enter into a Meter Service Agreement for CAISO Metered Entities with the CAISO. A Scheduling Coordinator representing a Scheduling Coordinator Metered Entity shall enter into a Meter Service Agreement for Scheduling Coordinators. If a CAISO Metered Entity is also a Scheduling Coordinator, it shall be treated as a CAISO Metered Entity for the purposes of this Section 10 and will be required to enter into a Meter Service Agreement for CAISO Metered Entities. A CAISO Metered Entity will not be required to enter into a Meter Service Agreement for Scheduling Coordinators unless it represents any Scheduling Coordinator Metered Entities. A Meter Service Agreement for Scheduling Coordinators entered into by a CAISO Metered Entity shall only apply to those Scheduling Coordinator Metered Entities that the CAISO Metered Entity represents; the Meter Service Agreement for Scheduling Coordinators shall not apply to the CAISO Metered Entity other than in its capacity as Scheduling Coordinator for those Scheduling Coordinator Metered Entities.

#### **10.1.5 Access to Meter Data**

The CAISO has complete authority over all rights of access to (and has authority to deny access to) the CAISO's RMDAPS and Settlement Quality Meter Data Systems including servers (where used), interface equipment, and software needed to collect the relevant information for Settlement, billing and related

purposes. Each Market Participant acknowledges this CAISO authority as a condition of CAISO Controlled Grid service and participation. For CAISO Metered Entities, authority over the sealing of meters, and all related Metering Facilities, shall reside solely with the CAISO for all CAISO designated Meter Points, regardless of any remote electronic access that a CAISO Metered Entity or its Scheduling Coordinator may have provided to third parties, except as otherwise may be required by law, FERC, any Local Regulatory Authority or other provision of this CAISO Tariff. Meter Data supplied by a CAISO Metered Entity shall be made available by the CAISO to the Scheduling Coordinator representing such CAISO Metered Entity at the time the Meter Data was provided and the other authorized users identified in its Meter Service Agreement for CAISO Metered Entities, but shall not be disclosed to any other third party except as may otherwise be required by law, FERC, any Local Regulatory Authority or other provision of this CAISO Tariff. Meter Data supplied by a Scheduling Coordinator for a Scheduling Coordinator Metered Entity shall be made available by the CAISO to the Scheduling Coordinator representing such Scheduling Coordinator Metered Entity at the time the Meter Data was provided and the other authorized users identified in its Meter Service Agreement for Scheduling Coordinators, but shall not be disclosed to any other third party except as may otherwise be required by law, FERC, any Local Regulatory Authority or other provision of this CAISO Tariff. Access by third parties other than authorized users to Meter Data held by the CAISO shall be coordinated through the Scheduling Coordinator that provided the Meter Data or that is representing the relevant CAISO Metered Entity that supplied the data and shall not be obtained directly from the CAISO on any basis including, without limitation, by accessing the RMDAPS.

#### **10.1.6 Failure of CAISO Facilities or System**

In the event facility and/or systems failures impact the CAISO's ability to accept, collect, and process Revenue Quality Meter Data or Settlement Quality Meter Data, alternative measures may be required by the CAISO, CAISO Metered Entities, and Scheduling Coordinator Metered Entities. These measures are described in the applicable Business Practice Manual.

#### **10.1.7 Provision of Statistically Derived Meter Data**

A Demand Response Provider representing a Reliability Demand Response Resource or a Proxy Demand Resource may submit a written application to the CAISO for approval of a methodology for

deriving Settlement Quality Meter Data for the Reliability Demand Response Resource or Proxy Demand Resource that consists of a statistical sampling of Energy usage data, in cases where interval metering is not available for the entire population of underlying service accounts for the Reliability Demand Response Resource or Proxy Demand Resource. As specified in the Business Practice Manual, the CAISO and the Demand Response Provider will then engage in written discussion which will result in the CAISO either approving or denying the application.

## **10.2 Metering for CAISO Metered Entities**

CAISO Metered Entities' revenue quality meters will be directly polled by the CAISO's RMDAPS as specified in this CAISO Tariff and Business Practice Manuals.

### **10.2.1 Responsibilities of CAISO Metered Entities**

#### **10.2.1.1 Duty to Provide Revenue Quality Meter Data**

CAISO Metered Entities shall ensure that Revenue Quality Meter Data from their meters directly connected to the CAISO Controlled Grid or at interconnections thereto, including interconnections between utility Service Areas which have separate UFE calculations, is made available to the CAISO RMDAPS in accordance with the requirements of this Section 10 and the Business Practice Manuals.

#### **10.2.1.2 Format for Data Submission**

CAISO Metered Entities must ensure that the Meter Data obtained by the CAISO directly from their revenue quality meters is raw, unedited and unaggregated Meter Data in kWh and kVarh values, as specified in the applicable Business Practice Manual. The CAISO will be responsible for the Validation, Estimation and Editing of that Meter Data in order to produce Settlement Quality Meter Data.

#### **10.2.1.3 Provision of and Access to Settlement Quality Meter Data**

Scheduling Coordinators may obtain Settlement Quality Meter Data relating to the CAISO Metered Entities they represent by directly accessing the Settlement Quality Meter Data Systems as specified in the applicable Business Practice Manual.

- For CAISO Metered Entities, Revenue Quality Meter Data obtained by successfully polled meters will be validated, estimated and edited by the CAISO to produce Settlement Quality Meter Data (actual), which will be made available to Scheduling Coordinators within eight (8) Business Days from the Trading Day (T+8B) and will be

California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff

used in the Recalculation Settlement Statement T+12B calculation.

- In the event that Revenue Quality Meter Data remains unavailable at midnight on the eighth (8) Business Day after the Trading Day (T+8B) due to unsuccessfully polled meters or facility and/or systems failures, the CAISO will estimate Settlement Quality Meter Data for CAISO Metered Entities for any outstanding metered Demand and/or Generation for the Recalculation Settlement Statement T+12B calculation as provided in Section 11.1.5.
- If the CAISO is notified in accordance with Section 10.2.13.2 that the revenue quality meter for a CAISO Metered Entity requires repair, the CAISO will produce Settlement Quality Meter Data (actual) for that entity using the estimation procedures referred to in Section 10.2.9, which will be made available to the Scheduling Coordinator for the CAISO Metered Entity within forty-eight (48) Business Days from the Trading Day (T+48C) and will be used in the Recalculation Settlement Statement T+55B calculation.

**10.2.2 Duty to Install and Maintain Meters**

CAISO Metered Entities, at their cost, shall install and maintain, or cause to be installed and maintained, metering equipment and associated communication devices at CAISO-designated Meter Points to meet the requirements of this Section 10 and the applicable Business Practice Manuals. The CAISO may require CAISO Metered Entities to install, at the cost of CAISO Metered Entities, additional meters and relevant metering system components, including Real-Time metering, at CAISO-specified Meter Points or other locations as deemed necessary by the CAISO, in addition to those connected to or existing on the CAISO Controlled Grid at the CAISO Operations Date. In directing the addition of meters and metering system components that would impose increased costs on a CAISO Metered Entity, the CAISO shall give due consideration to whether the expected benefits of such equipment are sufficient to justify such increased costs. Nothing in this Section 10 shall preclude CAISO Metered Entities from installing additional meters, instrument transformers and associated communications facilities not deemed necessary by the CAISO at their own cost. A CAISO Metered Entity may not commence installing such additional Metering Facilities until the CAISO has approved the CAISO Metered Entity's Proposal for Installation. If a CAISO Metered Entity installs such additional metering, such metering must: (i) be

installed and maintained at the CAISO Metered Entity's cost and (ii) not unduly interfere with the accuracy of any primary meter and, if that primary meter is directly polled by the CAISO, the CAISO's ability to poll directly that meter.

### **10.2.3 Metering Standards**

Each CAISO Metered Entity shall ensure that each of its meters used to provide Meter Data to the CAISO complies with the meter standards and accuracy requirements for meters set forth in this CAISO Tariff and the applicable Business Practice Manuals.

### **10.2.4 Certification of Meters**

Each CAISO Metered Entity that makes Meter Data available to the CAISO shall ensure that Metering Facilities used to produce such Meter Data have been certified by the CAISO as meeting the requirements of Section 10. Certification of the relevant Metering Facilities shall only be provided upon the production of such evidence as the CAISO may reasonably require to demonstrate that the facilities in question have been documented, inspected and successfully tested by the CAISO or a CAISO Authorized Inspector for conformance to the standards and accuracy requirements referred to in the Business Practice Manuals and this Section 10. CAISO certification pursuant to this Section 10.2.4 shall not relieve the CAISO Metered Entity from the obligation to ensure that its Metering Facilities continue to remain in compliance with the requirements of this CAISO Tariff and the applicable Business Practice Manuals.

#### **10.2.4.1 Requesting Certification**

A CAISO Metered Entity seeking certification of its Metering Facilities shall independently engage a CAISO Authorized Inspector to perform certification of its Metering Facilities. A CAISO Metered Entity may request the CAISO to perform the certification of its Metering Facilities if it would be impractical or impossible for that CAISO Metered Entity to engage a CAISO Authorized Inspector to perform the certification. The CAISO may refuse any such request by a CAISO Metered Entity if it is of the opinion that it is not impractical or impossible for that CAISO Metered Entity to engage a CAISO Authorized Inspector.



**10.2.4.2 Certification by the CAISO**

All requests made to the CAISO to perform the certification of Metering Facilities must be made in accordance with the certification process for Metering Facilities and technical specifications published in the Business Practice Manuals and be accompanied by the documents referred to in the applicable Business Practice Manual. If the CAISO agrees to perform the certification of Metering Facilities, the CAISO and that CAISO Metered Entity will agree the terms and conditions on which the CAISO will undertake the certification, including the assistance to be provided by the CAISO Metered Entity, the responsibility for costs and the indemnities to be provided.

**10.2.4.3 Criteria for Certification**

Subject to any exemption granted by the CAISO, the criteria for certifying the Metering Facilities of CAISO Metered Entities pursuant to the CAISO Tariff are the criteria set forth in the Business Practice Manuals.

**10.2.4.4 Certificate of Compliance**

If the Metering Facilities satisfy the certification criteria as specified in this CAISO Tariff and in the Business Practice Manuals (after taking into account any exemptions to the certification criteria granted by the CAISO), the CAISO will issue a Certificate of Compliance of those Metering Facilities to the CAISO Metered Entity.

**10.2.4.5 Obligation to Maintain Certification**

CAISO Metered Entities must ensure that their Metering Facilities continue to comply with the certification criteria referred to in the CAISO Tariff and the Business Practice Manuals.

**10.2.4.6 Revocation of Certification**

The CAISO may revoke in full or in part any Certificate of Compliance if:

- (a) it has reasonable grounds to believe that all or some of the Metering Facilities covered by that Certificate of Compliance no longer meet the certification criteria for Metering Facilities contained in the CAISO Tariff and the Business Practice Manuals; and
- (b) it has given written notice to the relevant CAISO Metered Entity stating that it does not believe that the identified Metering Facilities meet the certification criteria (including the reasons for that belief) and that CAISO Metered Entity fails to satisfy the CAISO, within the time period specified in the CAISO's notice, that the Metering Facilities meet the

certification criteria.

If the CAISO revokes in full or part a Certificate of Compliance, the relevant CAISO Metered Entity may seek recertification of the relevant Metering Facilities by requesting certification. Such request must indicate that it relates to Metering Facilities in respect of which the CAISO has previously revoked a Certificate of Compliance.

Subject to any exemption granted by the CAISO under this CAISO Tariff, the CAISO will not accept Revenue Quality Meter Data from a CAISO Metered Entity unless that Revenue Quality Meter Data is produced by Metering Facilities that are certified in accordance with this CAISO Tariff and the CAISO Metered Entity has a current Certificate of Compliance.

#### **10.2.4.7 Changes to Certified Metering Facilities**

The CAISO's approval must be obtained before any modifications or changes are made to any Metering Facilities of a CAISO Metered Entity which have been certified pursuant to the CAISO Tariff. The CAISO may, at its discretion, require those Metering Facilities to be recertified.

### **10.2.5 CAISO Authorized Inspectors**

#### **10.2.5.1 Published List of Inspectors**

The CAISO will publish on the CAISO Website, for informational purposes only, a list of the CAISO Authorized Inspectors and details of the procedure for applying to become a CAISO Authorized Inspector. The CAISO will, on request, provide a copy of that list to entities that do not have access to the CAISO Website.

#### **10.2.5.2 Current Certificates**

It is the responsibility of the relevant CAISO Metered Entity to ensure that any inspector it engages to undertake the certification of its Metering Facilities is a CAISO Authorized Inspector at the time of inspection.

### **10.2.6 Metering Communications**

The CAISO's RMDAPS shall collect and process Revenue Quality Meter Data made available by CAISO Metered Entities pursuant to Meter Service Agreements for CAISO Metered Entities and the applicable Business Practice Manual. Revenue Quality Meter Data for CAISO Metered Entities shall be made available to the CAISO's RMDAPS as specified in the applicable Business Practice Manual directly by the

California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff

CAISO Metered Entity. Revenue Quality Meter Data on the CAISO's RMDAPS may be provided or made accessible to other CAISO systems as deemed necessary by the CAISO, subject to the CAISO being satisfied that such access by such authorized uses and/or systems will not adversely affect the security of the data held by the CAISO. CAISO Metered Entities shall ensure that their Metering Facilities are compatible with the CAISO's RMDAPS for these purposes. The CAISO may, at its discretion, exempt a CAISO Metered Entity from the requirement to make Revenue Quality Meter Data directly available to the CAISO's RMDAPS, for example, where the installation of communication links is unnecessary, impracticable or uneconomic. The CAISO shall maintain the RMDAPS and remedy any faults occurring in such system. Scheduling Coordinators and other authorized users requiring Settlement Quality Meter Data for CAISO Metered Entities may obtain such data by accessing the CAISO's Settlement Quality Meter Data Systems in accordance with the CAISO Tariff and applicable Business Practice Manuals. Scheduling Coordinators and other authorized users shall not poll the CAISO revenue meters for any other purpose, unless specifically authorized in the Meter Service Agreement for CAISO Metered Entities.

**10.2.7 Format of Meter Data**

CAISO Metered Entities shall make available to the CAISO's RMDAPS Revenue Quality Meter Data meeting the requirements of this Section 10. The format of Meter Data to be submitted shall be identified by Transmission Owner, Distribution System, PNode, CAISO Controlled Grid interface point and other information reasonably required by the CAISO.

**10.2.8 Security and Meter Data Validation Procedures**

The applicable Business Practice Manuals shall specify, in such detail as the CAISO may deem necessary, the Meter Data security and validation procedures that the CAISO shall apply to the Revenue Quality Meter Data made available by each CAISO Metered Entity. The CAISO may base the security and validation procedures on historical data or an appropriate alternative data source. The CAISO shall correct or replace or cause to be corrected or replaced inaccurate or missing data. The procedure may include data correction and substitution algorithms which shall estimate, substitute and flag such inaccurate or missing data. Any necessary correction or replacement shall be approved by the CAISO prior to the data being sent to the CAISO for Settlement purposes. Security and validation measures for existing Tie Point Meters shall be consistent with existing arrangements with the operators in adjacent

Balancing Authority Areas. Any additional measures or changes to the existing arrangements shall only be implemented upon mutual agreement of the CAISO and the operator in the adjacent Balancing Authority Area.

**10.2.8.1 Meter Site Security**

Metering Facilities of CAISO Metered Entities and secondary devices that could have any impact on the performance of the Metering Facilities must be sealed by the CAISO or a CAISO Authorized Inspector.

**10.2.8.2 Third Party Access to Meters**

**10.2.8.2.1 Local Access**

If a CAISO Metered Entity desires to grant a third party local access to its revenue quality meters, those meters must be equipped with CAISO approved communications capabilities in accordance with the applicable Business Practice Manuals. The CAISO may set the password and any other security requirements for locally accessing the revenue quality meters of CAISO Metered Entities so as to ensure the security of those meters and their Revenue Quality Meter Data. The CAISO may alter the password and other requirements for locally accessing those meters from time to time as it determines necessary. The CAISO must provide CAISO Metered Entities with the current password and other requirements for locally accessing their revenue quality meters. CAISO Metered Entities must not give a third party other than its Scheduling Coordinator local access to its revenue quality meters or disclose to that third party the password to its revenue quality meters without the CAISO's prior approval as set forth in a schedule to the Meter Service Agreement for CAISO Metered Entities which shall not unreasonably be withheld. CAISO Metered Entities will be responsible for ensuring that a third party approved by the CAISO to access its revenue quality meters only accesses the data it is approved to access and that the data are only accessed for the purposes for which the access was approved.

**10.8.2.2.2 Remove Access**

The CAISO may set the password and any other security requirements for remotely accessing the revenue quality meters of CAISO Metered Entities so as to ensure the security of those meters and their Revenue Quality Meter Data. The CAISO will alter the password and other requirements for remotely accessing those meters from time to time as it determines necessary. The CAISO must provide CAISO Metered Entities with the current password and other requirements for remotely accessing their revenue

quality meters.

CAISO Metered Entities must not give a third party other than its Scheduling Coordinator remote access to its revenue quality meters or disclose to that third party the password to its revenue quality meters without the CAISO's prior approval as set forth in a schedule to the Meter Service Agreement for CAISO Metered Entities which shall not unreasonably be withheld. CAISO Metered Entities will be responsible for ensuring that a third party approved by the CAISO to access its revenue quality meters only accesses the data it is approved to access and that the data are only accessed for the purposes for which the access was approved.

#### **10.2.8.3 Third Party Access Withdrawn**

If, in the reasonable opinion of the CAISO, access granted to a third party by a CAISO Metered Entity in any way interferes or impedes with the CAISO's ability to poll any revenue quality meter, the CAISO may require that CAISO Metered Entity to immediately withdraw any access granted to a third party.

#### **10.2.8.4 SQMDS Security**

The CAISO will provide any needed information to entities that are permitted to access SQMDS. The CAISO must maintain the security and integrity of Revenue Quality Meter Data brought into SQMDS.

#### **10.2.9 Validation, Estimation and Editing of Meter Data**

Subject to any exemption granted by the CAISO, Revenue Quality Meter Data that CAISO Metered Entities provide to the CAISO will be processed using the Validation, Estimation and Editing procedures published in the Business Practice Manuals in order to produce Settlement Quality Meter Data.

##### **10.2.9.1 Obligation to Assist**

At the request of the CAISO, CAISO Metered Entities shall assist the CAISO in correcting or replacing defective data and in detecting and correcting underlying causes for such defects. Such assistance shall be rendered in a timely manner so that the Settlement process is not delayed.

##### **10.2.9.2 Availability of Meter Data**

Subject to any exemption granted by the CAISO, Meter Data of CAISO Metered Entities must be recorded at 5-minute intervals and will be collected in accordance with the provisions of the applicable Business Practice Manual. The CAISO may also collect Meter Data on demand as provided in the applicable Business Practice Manual.

**10.2.9.3 [Not Used]**

**10.2.9.4 [Not Used]**

**10.2.10 Low Voltage Side Metering**

**10.2.10.1 Requirement for CAISO Approval**

CAISO Metered Entities may only install revenue quality meters on the low voltage side of step-up transformers if they have obtained the prior approval of the CAISO in accordance with Section 10.2.10.

CAISO Metered Entities that have installed low voltage side metering, whether such installation was before or after the CAISO Operations Date, shall apply the Transformer and Line Loss Correction Factor in accordance with Section 10.2.10.4.

**10.2.10.2 Request for Approval**

If a CAISO Metered Entity wishes to install low voltage side metering, it shall submit a written request to the CAISO. That CAISO Metered Entity must:

- (a) request approval to apply the Transformer and Line Loss Correction Factor to its revenue quality meter or request approval to have the CAISO apply the Transformer and Line Loss Correction Factor;
- (b) provide detailed reasons to support the request for low side metering;
- (c) provide all of the information in relation to the Transformer and Line Loss Correction Factor required by the Business Practice Manuals; and
- (d) any other information reasonably requested by the CAISO.

**10.2.10.3 CAISO's Grounds for Approval**

The CAISO shall approve a request made under Section 10.2.10.2 only if the CAISO is satisfied that adequate accuracy and security of Revenue Quality Meter Data obtained can be assured in accordance with Section 10.2.10. The CAISO's rejection of such a request may be referred to the CAISO ADR Procedures if, after using all reasonable good faith efforts, the CAISO and a CAISO Metered Entity are unable to reach agreement.

**10.2.10.4 Application of Transformer and Line Loss Correction Factor**

CAISO Metered Entities will apply the Transformer and Line Loss Correction Factor as set forth in the Business Practice Manuals. If the CAISO has approved a request from a CAISO Metered Entity for

RMDAPS to apply the Transformer and Line Loss Correction Factor, RMDAPS will apply the Transformer and Line Loss Correction Factor set forth in the Business Practice Manuals. If the CAISO applies the Transformer and Line Loss Correction Factor, the CAISO may require the CAISO Metered Entity to pay the reasonable costs incurred by it in applying the Transformer and Line Loss Correction Factor.

#### **10.2.11 Audit, Testing Inspection and Certification Requirements**

CAISO Metered Entities are subject to CAISO audit, testing and certification requirements for their entire metering system(s), including all relevant communication facilities and instrument transformers. The CAISO will have the right to either conduct any audit or test it considers necessary or to witness such audit or test carried out by the CAISO Metered Entity or a CAISO Authorized Inspector engaged by the CAISO Metered Entity or the CAISO to carry out those audits or tests.

#### **10.2.12 Exemptions**

The CAISO has the authority to grant exemptions from certain CAISO metering standards for a CAISO Metered Entity, as set forth in Section 10.4. A CAISO Metered Entity with a temporary exemption shall provide site specific Revenue Quality Meter Data to the CAISO in accordance with its Meter Service Agreement for CAISO Metered Entities and the CAISO Tariff. A Generating Unit that provides Regulatory Must-Take Generation with an Existing QF Contract or an Amended QF Contract that is connected directly to a Distribution System and that sells its entire output to the UDC or in the MSS in which the Generating Unit is located is not subject to the audit, testing or certification requirements of the CAISO.

#### **10.2.13 Maintenance of Metering Facilities**

##### **10.2.13.1 Duty to Maintain Metering Facilities**

CAISO Metered Entities must maintain their Metering Facilities so that those Metering Facilities continue to meet the standards prescribed by the CAISO Tariff and the applicable Business Practice Manuals.

##### **10.2.13.2 Repairs**

If a revenue quality meter of a CAISO Metered Entity requires repairs to ensure that it operates in accordance with the requirements of the CAISO Tariff and the applicable Business Practice Manuals, the CAISO Metered Entity must immediately notify the CAISO of the need for repairing that meter and must ensure that those repairs are completed in accordance with the applicable Business Practice Manual. During periods for which no Revenue Quality Meter Data is available from a meter which has a current

Certificate of Compliance, the CAISO will create and provide access to Settlement Quality Meter Data for use in the Settlement Statement calculations, as provided in Section 10.2.1.3.

#### **10.2.14 Installation of Additional Metering Facilities**

##### **10.2.14.1 CAISO Requirement to Install Additional Metering**

If the CAISO determines that there is a need to install additional Metering Facilities on the CAISO Controlled Grid pursuant to Section 10.2.2, it will notify the relevant CAISO Metered Entity of that need and will process the CAISO Metered Entity's Proposal for Installation in accordance with the applicable Business Practice Manual.

##### **10.2.14.2 CAISO Metered Entities' Election to Install Additional Metering**

In accordance with Section 10.2.2, a CAISO Metered Entity may choose to install additional metering, including Backup Meters. If a CAISO Metered Entity installs such additional metering, such metering must, unless the CAISO agrees otherwise:

- (a) be installed and maintained at the CAISO Metered Entity's cost;
- (b) be located on the CAISO Metered Entity's side of any primary meter; and
- (c) not interfere with the accuracy of any primary meter and, if that primary meter is directly polled by the CAISO, the CAISO's ability to directly poll that meter.

Any Meter Data produced by any such additional metering may be used by the CAISO for Settlement and billing purposes in the event of the failure, or during tests or repairs of, the primary meter provided that such additional metering has a current Certificate of Compliance, the CAISO Metered Entity gives the CAISO prior verbal notice that such meter will be used and the period for which it will be used and, if the primary meter is directly polled by the CAISO, the additional metering must also be capable of being directly polled by the CAISO.

#### **10.3 Metering For Scheduling Coordinator Metered Entities**

##### **10.3.1 Applicability**

The requirements set forth in this Section 10.3 shall apply only to Scheduling Coordinators representing Scheduling Coordinator Metered Entities. The requirements in Section 10.1 also apply to Scheduling Coordinators. If a Scheduling Coordinator Metered Entity is also a Scheduling Coordinator, it shall be treated as a Scheduling Coordinator for the purposes of Section 10 and any references to entities that



such a Scheduling Coordinator represents shall be deemed to include that Scheduling Coordinator itself.

### **10.3.2 Responsibilities of Scheduling Coordinators and the CAISO**

#### **10.3.2.1 Duty to Provide Settlement Quality Meter Data**

Scheduling Coordinators shall be responsible for: (i) the collection of Meter Data for the Scheduling Coordinator Metered Entities it represents; (ii) the provision of Settlement Quality Meter Data to the CAISO; and (iii) ensuring that the Settlement Quality Meter Data supplied to the CAISO meets the requirements of Section 10. Scheduling Coordinators shall provide the CAISO with Settlement Quality Meter Data for all Scheduling Coordinator Metered Entities served by the Scheduling Coordinator no later than the day specified in Section 10.3.6 or the day specified in Section 10.3.6.4, as applicable.

Settlement Quality Meter Data for these Scheduling Coordinator Metered Entities shall be an accurate measure of the actual production or consumption of Energy by each Scheduling Coordinator Metered Entity in each Settlement Period.

##### **10.3.2.1.1 Requirements of SCs Representing Demand Response Providers**

Each Scheduling Coordinator for a Demand Response Provider shall aggregate the Settlement Quality Meter Data of the underlying Proxy Demand Resource or Reliability Demand Response Resource to the level of the registration configuration of the Proxy Demand Resource or Reliability Demand Response Resource in the Demand Response System. Settlement Quality Meter Data for these Scheduling Coordinator Metered Entities shall be (1) an accurate measure of the actual consumption of Energy by each Scheduling Coordinator Metered Entity in each Settlement Period; (2) the resulting Demand Response Energy Measurement calculated using a performance evaluation methodology for Proxy Demand Resources or Reliability Demand Response Resources; or (3) statistically derived meter data pursuant to Section 10.1.7.

##### **10.3.2.1.2 Requirements for SCs Representing Distributed Energy Resource Aggregations**

Each Scheduling Coordinator for a Distributed Energy Resource Aggregation shall aggregate the Settlement Quality Meter Data of the underlying Distributed Energy Resources to the level of the Distributed Energy Resources Aggregation provided in the Distributed Energy Resource Provider Agreement. Settlement Quality Meter Data for these Scheduling Coordinator Metered Entities shall be an accurate measure of the actual production or consumption of Energy by each Distributed Energy

Resource that comprises a Distributed Energy Resource Aggregation in each Settlement Period.

Scheduling Coordinators shall retain Settlement Quality Meter Data of each Distributed Energy Resource comprising a Distributed Energy Resource Aggregation for a period of at least three (3) years and shall provide this information to the CAISO as may be reasonably requested from time to time by the CAISO.

#### **10.3.2.2 Format for Data Submission**

Scheduling Coordinators shall submit Settlement Quality Meter Data to the Settlement Quality Meter Data System for the Scheduling Coordinator Metered Entities they represent using one of the CAISO's approved Meter Data Exchange Formats. Subject to any exemption granted by the CAISO, Scheduling Coordinators must ensure that Settlement Quality Meter Data submitted to the CAISO is in intervals of five (5) minutes for EIM Interties, Loads providing Ancillary Services, and Generators providing Ancillary Services. Scheduling Coordinators for EIM Participating Resources or for Generators not providing Ancillary Services may elect to submit Meter Data in 5-minute or 15-minute intervals. Scheduling Coordinators for all other Scheduling Coordinator Metered Entities may elect to submit Meter Data in 5-minute, 15-minutes, or 60-minute intervals. Elections will be recorded by the CAISO, and may not be deviated from or revised except by application. 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.

Each Scheduling Coordinator shall submit Settlement Quality Meter Data in kWh or MWh values for all of the Scheduling Coordinator Metered Entities for which it is responsible, aggregated by the applicable market or resource level. Scheduling Coordinators are not required to submit values in the absence of Supply, Demand, or other participation in the CAISO Markets.

#### **10.3.3 Loss Factors**

Where a Scheduling Coordinator Metered Entity is connected to a UDC's Distribution System, the responsible Scheduling Coordinator shall adjust the Meter Data by an estimated Distribution System loss factor to derive an equivalent CAISO Controlled Grid level measure. Such estimated Distribution System loss factors shall be approved by the relevant Local Regulatory Authority prior to their use.

#### **10.3.4 Load Profile Authorization**

Scheduling Coordinators shall be responsible for obtaining all necessary authorizations of Approved Load Profiles from Local Regulatory Authorities having jurisdiction over the use of profiled Meter Data and shall use Approved Load Profiles in any Settlement process in which Load profiles are used to allocate consumption to Settlement Periods.

#### **10.3.5 Communication of Meter Data**

Each Scheduling Coordinator shall submit Settlement Quality Meter Data for Scheduling Coordinator Metered Entities to the CAISO in accordance with Section 11.29.24.1, Section 37.5, and applicable Business Practice Manuals.

#### **10.3.6 Settlement Quality Meter Data Submission**

Scheduling Coordinators shall submit to the CAISO Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data, as provided in Section 10.3.6.2(a), for Scheduling Coordinator Metered Entities they represent for each Settlement Period in an Operating Day according to the timelines established in Section 10.3.6.2 and the CAISO Payments Calendar and as provided in the applicable Business Practice Manual. Scheduling Coordinators must also submit Settlement Quality Meter Data (actual and Scheduling Coordinator estimated) on demand as provided in the applicable Business Practice Manual.

##### **10.3.6.1 No Meter Data Submission for Initial Settlement Statement T+3B**

Because Initial Settlement Statement T+3B is solely based on CAISO Estimated Settlement Quality Meter Data for metered Demand and Generation, Scheduling Coordinators cannot submit Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data for the entities they represent for purposes of the Initial Settlement Statement T+3B calculation.

##### **10.3.6.2 Timing of SQMD Submission for Calculation of Recalculation Settlement Statement T+12B**

Scheduling Coordinators must submit Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data for the Scheduling Coordinator Metered Entities they represent to the CAISO no later than midnight on the eighth (8) Business Day after the Trading Day (T+8B) for the Recalculation Settlement Statement T+12B calculation. Scheduling Coordinators can submit Estimated

California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff

Settlement Quality Meter Data for Demand Response Resources.

- (a) In the absence of Actual Settlement Quality Meter Data, Scheduling Coordinators may submit Scheduling Coordinator Estimated Settlement Quality Meter Data using interval metering when available, sound estimation practices, and other available information including, but not limited to, bids, schedules, forecasts, temperature data, operating logs, recorders, and historical data. Scheduling Coordinator Estimated Settlement Quality Meter Data must be a good faith estimate that reasonably represents Demand and/or Generation quantities for each Settlement Period.
- (b) When Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data is not received by the CAISO for a Scheduling Coordinator Metered Entity within eight (8) Business Days from the Trading Day (T+8B), the CAISO will estimate the entity's Settlement Quality Meter Data for any outstanding metered Demand and/or Generation, including Demand Response Resources, for use in the Recalculation Settlement Statement T+12B calculation, as provided in Section 11.1.5.

**10.3.6.3 Timing of SQMD Submission for Recalculation Settlement Statement T+55B**

Scheduling Coordinators must submit Actual Settlement Quality Meter Data for the Scheduling Coordinator Metered Entities they represent to the CAISO no later than midnight on the forty-eighth (48) Business Day after the Trading Day (T+48B) for the Recalculation Settlement Statement T+55B calculation. A Scheduling Coordinator that timely submits Actual Settlement Quality Meter Data for the Recalculation Settlement Statement T+12B pursuant to Section 10.3.6.2 may submit revised Actual Settlement Quality Meter Data for the Recalculation Settlement Statement T+55B no later than the forty-eighth (48) Business Day after the Trading Day pursuant to this Section.

- (a) When Actual Settlement Quality Meter Data is not received by the CAISO for a Scheduling Coordinator Metered Entity by forty-eight (48) Business Days after the Trading Day (T+48B), the Scheduling Coordinator has failed to submit complete and accurate meter data as required by Section 37.5.2.1 and will be subject to monetary penalty pursuant to Section 37.5.2.2.

California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff

- (b) Any Scheduling Coordinator Estimated Settlement Quality Meter Data submitted by a Scheduling Coordinator on behalf of the Scheduling Coordinator Metered Entities it represents that is not replaced with Actual Settlement Quality Meter Data by forty-eight (48) Business Days after the Trading Day (T+48B) has failed to submit complete and accurate meter data as required by Section 37.5.2.1 and will be subject to monetary penalty pursuant to Section 37.5.2.2. In the absence of Actual Settlement Quality Meter Data, Scheduling Coordinator Estimated Settlement Quality Meter Data will be used in the Recalculation Settlement Statements.
- (c) The CAISO will not estimate a Scheduling Coordinator Metered Entity's Settlement Quality Meter Data for any outstanding metered Demand and/or Generation for use in a Recalculation Settlement Statement T+55B calculation. Any previous CAISO Estimated Settlement Quality Meter Data that the Scheduling Coordinator does not replace with Actual Settlement Quality Meter Data by forty-eight (48) Business Days after the Trading Day (T+48B) will be set to zero. The CAISO will follow the control process described in the BPM for Metering to monitor and identify the CAISO Estimated Settlement Quality Meter Data that was not timely replaced and will take proactive measures to obtain the Actual Settlement Quality Meter Data. A Scheduling Coordinator that fails to replace CAISO Estimated Settlement Quality Meter Data with Actual Settlement Quality Meter Data by forty-eight (48) Business Days after the Trading Day (T+48B) has failed to provide complete and accurate Settlement Quality Meter Data as required by Section 37.5.2.1 and will be subject to monetary penalty pursuant to Section 37.5.2.2.

**10.3.6.4 Timing of SQMD Submission for Recalculation Settlement Statement T+9M**

Scheduling Coordinators may submit Actual Settlement Quality Meter Data for the Scheduling Coordinator Metered Entities they represent to the CAISO, during the period from one-hundred and sixty-eight Business Days after the Trading Day (T+168B) to one-hundred and seventy-two Business Days after the Trading Day (T+172B) for use in Recalculation Settlement Statement T+9M. Scheduling Coordinators submitting Actual Settlement Quality Meter Data during the period, from T+168B to T+172B, which is more than forty-eight (48) Business Days after the Trading Day (T+48B) have failed to provide

complete and accurate Settlement Quality Meter Data as required by Section 37.5.2.1 and will be subject to monetary penalty pursuant to Section 37.5.2.2. Any Actual Settlement Quality Meter Data that is submitted by a Scheduling Coordinator after the T+48B meter data submittal deadline, and outside the period from T+168B to T+172B, will be rejected by the CAISO and not used in settlement calculations.

**10.3.6.5 Submission of Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data for Reliability Demand Response Resources that Provide Demand Response Services in Real-Time**

Each Scheduling Coordinator for a Demand Response Provider representing a Reliability Demand Response Resource that provides Demand Response Services only in Real-Time shall submit Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data for the Reliability Demand Response Resource by midnight of the eighth Business Day after the Trading Day (T+8B) on which the Demand Response Services were provided, including Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data for a Demand Response Event and for the forty-five (45) calendar days preceding the Trading Day for use in the CAISO's calculation of the Customer Load Baseline pursuant to Section 4.13.4.

**10.3.6.6 Auditing by CAISO for Demand Response Providers**

To ensure accuracy and compliance with the CAISO tariff, the CAISO will have the right to audit Meter Data submitted by Scheduling Coordinators to establish performance evaluation methodologies pursuant to Section 4.13.4 or Demand Response Energy Measurements pursuant to Section 11.6.

**10.3.7 Meter Standards**

Each Scheduling Coordinator, in conjunction with the relevant Local Regulatory Authority, shall ensure that each of its Scheduling Coordinator Metered Entities connected to and served from the Distribution System of a UDC shall be metered by a revenue meter complying with any standards of the relevant Local Regulatory Authority or, if no such standards have been set by that Local Regulatory Authority, the metering standards set forth in this CAISO Tariff and as further detailed in the Business Practice Manuals.

**10.3.7.1 SQMD Plan**

For Scheduling Coordinator Metered Entities that were not participating as such before April 10, 2017, or that repower, modify their Meter Data interval, or add generating capacity after April 10, 2017, the Scheduling Coordinators must submit an SQMD Plan to ensure that the Scheduling Coordinator will submit and maintain the integrity of Meter Data submitted to the CAISO for that Scheduling Coordinator Metered Entity. The SQMD Plan will describe how the Scheduling Coordinator will collect, maintain, aggregate, and submit Settlement Quality Meter Data in accordance with CAISO Tariff and, where applicable, Local Regulatory Authority metering and settlement standards. SQMD Plans will include detailed descriptions of the following, as applicable, for each Scheduling Coordinator Metered Entity or Scheduling Coordinator Metered Entity aggregation or calculation:

- (1) The type, programming, and configuration of all associated metering devices;
- (2) How the Scheduling Coordinator or its agent will collect, validate, aggregate, and submit associated Meter Data;
- (3) Single-line diagrams with professional engineer stamps (or equivalent) depicting the physical elements and relationships among the metering device(s);
- (4) Any calculation or algorithm to derive Settlement Quality Meter Data from the metering device(s);
- (5) Process for aggregating individual Scheduling Coordinator Metered Entities and/or Resource IDs; and
- (6) Plans and schedules to perform regular tests of the metering devices and audit the associated Meter Data pursuant to CAISO Tariff requirements.

Proxy Demand Resources and Reliability Demand Response Resources may satisfy this requirement through the demand response registration process.

**10.3.7.2 CAISO Review of SQMD Plan**

The CAISO must approve a Scheduling Coordinator Metered Entity's SQMD Plan before the Scheduling Coordinator may submit Bids on its behalf in the CAISO Markets.

**10.3.7.3 SQMD Plan Modifications**

Scheduling Coordinator Metered Entities may propose for CAISO approval modifications to approved SQMD Plans. So long as the Scheduling Coordinator Metered Entity remains in compliance with its existing SQMD Plan, or where the proposed modification intends to bring the Scheduling Coordinator Metered Entity into compliance, the associated Scheduling Coordinator may continue to submit Meter Data for settlement while the CAISO reviews the SQMD Plan modifications.

**10.3.7.4 SQMD Plan Audits and CAISO Remedies**

In addition to the CAISO's audit rights pursuant to this Section 10, the CAISO may perform audits or inspections to ensure that Scheduling Coordinators and Scheduling Coordinator Metered Entities have implemented and comply with their SQMD Plans. Based on an audit, inspection, or other information, the CAISO will determine whether the Scheduling Coordinator Metered Entity must modify its SQMD Plan or is subject to penalty under the CAISO Tariff, including conversion to a CAISO Metered Entity.

**10.3.7.5 Annual Affirmation**

In addition to the auditing and testing requirements contained in its SQMD Plan, on an annual basis the Scheduling Coordinator Metered Entity must perform a self-assessment and affirm to the CAISO, in writing, that it has implemented and continues to comply with its SQMD Plan. Where the Scheduling Coordinator Metered Entity performs a self-assessment and determines that it will not be able to affirm its compliance to the CAISO, the Scheduling Coordinator Metered Entity will describe the issue to the CAISO and its plan to remedy the issue. The associated Scheduling Coordinator may continue to submit Meter Data for settlement while the CAISO reviews the plan to remedy the issue. Proxy Demand Resources and Reliability Demand Response Resources that have satisfied the SQMD Plan requirement through the demand response registration process are not required to submit an annual affirmation.

**10.3.8 Access to Meter Data**

The CAISO has complete authority over rights of access to (and has authority to deny access to) its Settlement Quality Meter Data Systems by Scheduling Coordinators and Scheduling Coordinator Metered Entities for Settlement, billing and related purposes. Each Scheduling Coordinator, on behalf of itself and Scheduling Coordinator Metered Entities that it serves or represents, acknowledges this CAISO authority as a condition of access to the CAISO Controlled Grid. Meter Data of a Scheduling Coordinator Metered



Entity remains the property of that Scheduling Coordinator Metered Entity and shall be made available to third parties only with its express permission or the permission of its Scheduling Coordinator or as otherwise required by law or provided for in this CAISO Tariff.

### **10.3.9 Certification of Meters**

Scheduling Coordinators shall ensure that revenue meters and related Metering Facilities of those Scheduling Coordinator Metered Entities whom they represent are certified in accordance with any certification criteria prescribed by the relevant Local Regulatory Authority or, if no such criteria have been prescribed by that Local Regulatory Authority, certified in accordance with this Section 10. Scheduling Coordinators shall upon request of the CAISO supply promptly copies of all certificates issued by the relevant Local Regulatory Authority. Scheduling Coordinators of a Distributed Energy Resource Aggregation for which no Local Regulatory Authority criteria have been prescribed for Metering Facilities may self-certify that their Metering Facilities meet the default certification criteria set forth in the CAISO Business Practice Manual. The End-Use Meter of a Scheduling Coordinator Metered Entity in place as of the CAISO Operations Date is deemed to be certified as in compliance with this CAISO Tariff and Business Practice Manuals. Once certified, meters for Scheduling Coordinator Metered Entities need not be recertified provided such meters are maintained so as to meet the standards and accuracy requirements prescribed by any relevant Local Regulatory Authority or, if no such standards have been prescribed by that Local Regulatory Authority, such requirements as referred to in the Business Practice Manuals and this Section 10. Recertification is not required by the CAISO upon an election by a Scheduling Coordinator Metered Entity to change its Scheduling Coordinator from which it takes service.

### **10.3.10 Requirement for Audit and Testing**

#### **10.3.10.1 Audit and Testing by Scheduling Coordinator**

At least every two years, each Scheduling Coordinator shall (or engage an independent, qualified entity to conduct) audit and test the Metering Facilities of the Scheduling Coordinator Metered Entities that it represents and the Meter Data provided to the Scheduling Coordinator in order to ensure compliance with all applicable requirements of any relevant Local Regulatory Authority and the Scheduling Coordinator Metered Entity's SQMD Plan. Scheduling Coordinators shall undertake any other actions that are reasonably necessary to ensure the accuracy and integrity of the Settlement Quality Meter Data (actual or

Scheduling Coordinator estimated) provided by them to the CAISO.

#### **10.3.10.2 Audit and Testing by CAISO**

Subject to any applicable Local Regulatory Authority requirements, the Metering Facilities and data handling and processing procedures of Scheduling Coordinators and Scheduling Coordinator Metered Entities are subject to audit and testing by the CAISO or a CAISO Authorized Inspector. Subject to any applicable Local Regulatory Authority requirements, the CAISO will have the right to either conduct any audit or test it considers necessary or to witness such audit or test carried out by the Scheduling Coordinator, Scheduling Coordinator Metered Entity or a CAISO Authorized Inspector engaged by the Scheduling Coordinator, Scheduling Coordinator Metered Entity or the CAISO to carry out those audits or tests.

#### **10.3.11 Scheduling Coordinator to Ensure Certification**

If the relevant Local Regulatory Authority has not prescribed any certification criteria for the Metering Facilities of a Scheduling Coordinator Metered Entity, the Scheduling Coordinator representing that Scheduling Coordinator Metered Entity must promptly notify the CAISO in writing that no such criteria have been prescribed. Where applicable, this notification may be included in the Scheduling Coordinator Metered Entity's SQMD Plan. Consistent with Section 10.3.9, Scheduling Coordinators of a Distributed Energy Resource Aggregation for which no Local Regulatory Authority criteria have been prescribed for Metering Facilities may self-certify that their Metering Facilities meet the default certification criteria set forth in the CAISO Business Practice Manual or their SQMD Plan.

##### **10.3.11.1 Confirmation of Certification**

On the written request of the CAISO, each Scheduling Coordinator must give the CAISO written confirmation that the Metering Facilities of each Scheduling Coordinator Metered Entity that it represents are certified in accordance with either the criteria of the relevant Local Regulatory Authority, the Scheduling Coordinator Metered Entity's SQMD Plan, and/or the criteria prescribed by the CAISO Tariff and Business Practice Manuals within five (5) Business Days of receiving a request from the CAISO.

##### **10.3.11.2 Deemed Certification**

Revenue quality meters of Scheduling Coordinator Metered Entities that are subject to certification and which were installed and operational as of the CAISO Operations Date will be deemed to be certified for

the purposes of the CAISO Tariff. Revenue quality meters that have been fully installed as of the CAISO Operations Date but which are not operational as of that date because they were undergoing maintenance or repairs will also be deemed to be certified in accordance with the CAISO Tariff.

**10.3.12 [Not Used]**

**10.3.13 [Not Used]**

**10.3.14 Approval By LRA Of Security And Validation Procedures**

Scheduling Coordinators shall be responsible for obtaining any necessary approval of the relevant Local Regulatory Authority to its proposed security, validation, editing and estimation procedures. The CAISO will not perform any Validation, Estimation and Editing on the Settlement Quality Meter Data it receives from Scheduling Coordinators.

**10.3.14.1 UDC and TO Agreements**

Each Scheduling Coordinator shall be responsible for obtaining any necessary consent from the UDCs on whose Distribution Systems or the Participating TOs on whose transmission facilities the Scheduling Coordinator has Scheduling Coordinator Metered Entities as is necessary to give effect to the procedures governing Meter Data validation and security and inspection and testing of Metering Facilities.

Scheduling Coordinators must verify with the relevant UDC and/or Participating TO the identity of each Scheduling Coordinator Metered Entity they represent and must notify the UDC and/or Participating TO of any discrepancies of which they become aware. Where UDCs or Participating TOs serve adjacent service areas and have elected to submit Settlement Quality Meter Data at the intratie(s), they will be required to agree on the metering configurations used for submitting Meter Data to the CAISO. If they cannot reach an agreement, the intratie(s) will be required to use revenue quality meters directly polled by the CAISO pursuant to Section 10.2.

**10.3.15 [Not Used]**

**10.3.16 [Not Used]**

**10.3.17 Meter Identification**

If a Scheduling Coordinator Metered Entity is required to identify its revenue quality meters by the relevant:

- (a) Local Regulatory Authority; or

(b) UDC,

then the Scheduling Coordinator representing that Scheduling Coordinator Metered Entity must, at the CAISO's request, provide the CAISO with a copy of that information within five (5) Business Days of a request by the CAISO in a format to be prescribed by the CAISO.

If a Scheduling Coordinator Metered Entity is not required by either the relevant Local Regulatory Authority or UDC to identify its revenue quality meters, the Scheduling Coordinator representing that Scheduling Coordinator Metered Entity shall maintain an accurate record of the revenue quality meter of each of the Scheduling Coordinator Metered Entities that it represents from time to time. The record maintained by Scheduling Coordinators must include the information set out in the applicable Business Practice Manuals. The Scheduling Coordinator must, at the CAISO's request, provide the CAISO with a copy of any information contained in that record within five (5) Business Days of a request by the CAISO in a format to be prescribed by the CAISO.

#### **10.4 Exemptions**

##### **10.4.1 Authority to Grant Exemptions**

In addition to the specific exemptions granted under the CAISO Tariff, the CAISO has the authority under the CAISO Tariff to grant exemptions from compliance with certain requirements imposed by the CAISO Tariff.

##### **10.4.2 Guidelines for Granting Exemptions**

The CAISO will use the following guidelines when considering applications for exemptions from compliance with the provisions of Section 10.

(a) Publication of Guidelines

The CAISO will publish on the CAISO Website the general guidelines that it may use when considering applications for exemptions so as to achieve consistency in its reasoning and decision making and to give prospective applicants an indication of whether an application will be considered favorably.

(b) Publication of Exemption Applications

The CAISO will promptly publish on the CAISO Website a description of each application it receives for an exemption.

(c) Publication of Decision

The CAISO will publish on the CAISO Website details of whether the application was approved or rejected by it and, if the CAISO considers it appropriate, the reasons for rejecting the application.

(d) Class Exemption

In addition to exemptions granted to individual entities, the CAISO may grant exemptions that will apply to a class of entities. The CAISO may grant class exemptions whether or not it has received any application for an exemption. The CAISO will publish details of the class exemptions it has granted on the CAISO Website.

**10.4.3 Procedure for Applying for Exemptions**

All applications to the CAISO for exemptions from compliance with the requirements of Section 10 must be made in writing and will be processed by the CAISO in accordance with the provisions of the applicable Business Practice Manual. The CAISO may require the applicant to provide additional information in support of its application. The applicant must provide such additional information to the CAISO within five (5) Business Days of receiving the request for additional information or within such other period as the CAISO may notify to the applicant. If the CAISO makes a request for additional information more than five (5) Business Days after the date on which it received the application, the CAISO will have an additional five (5) Business Days after receiving that additional information in which to consider the application. If the applicant does not provide the additional information requested, the CAISO may refuse the application in which case it will notify the applicant that its application has been rejected for failure to provide the additional information.

**10.4.4 Permitted Exemptions**

**10.4.4.1 Exemptions from Providing Meter Data Directly to RMDAPS**

The CAISO has the authority under Section 10.2.6 to exempt CAISO Metered Entities from the requirement to make Meter Data directly available to the CAISO via RMDAPS. The applicable Business Practice Manual sets forth specific exemptions available. In addition, the CAISO may, at its discretion, grant such an exemption where it considers the requirement to install communication links (or related facilities) between the CAISO Metered Entity and CAISO's secure communication system to allow the CAISO to directly poll the meters of that CAISO Metered Entity would be unnecessary, impractical or uneconomic.

**10.4.4.2 Exemptions from Meter Standards**

The CAISO has the authority under Section 10.2.12 to exempt CAISO Metered Entities from the requirement to comply with the meter standards referred to in the CAISO Tariff. The applicable Business Practice Manual sets forth specific exemptions available.