

Business Practice Manual for Scheduling Coordinator Certification & Termination and Convergence Bidding Entity Registration & Termination

Version 910

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TABLE OF CONTENTS

| | |
|---|-----------|
| 1. Introduction | 5 |
| 1.1 Purpose of California CAISO Business Practice Manuals | 5 |
| 1.2 | 5 |
| 1.3 References | 7 |
| 2. Entities that Require SC Representation..... | 8 |
| 3. Types of Activities or Representation | 12 |
| 4. Scheduling Agent Designation | 17 |
| 5. SC Certification Process | 18 |
| 5.1 Application Timeline..... | 18 |
| 5.1.1 Application Sunset Provision | 19 |
| 5.2 Submit Scheduling Coordinator Application Form | 20 |
| 5.3 Certification Requirements..... | 21 |
| 5.3.1 Establish Financial Security with CAISO and meet the Minimum Participation Requirements (FERC Order 741)..... | 21 |
| 5.3.1.2 Officer Certification and Risk Policies..... | 22 |
| 5.3.2 Establish Network Interface | 22 |
| 5.3.3 User Access Administrator | 24 |
| 5.3.4 Request Application Access | 24 |
| 5.3.5 Complete Attend Training and Testing | 27 |
| 5.3.6 Complete Market Proficiency Test | 27 |
| 5.3.6.7 Electronic Funds Transfer (EFT) Test..... | 27 |
| 5.3.7.8 Submit SC Emergency Plan | 28 |
| 5.3.8.9 Complete Real-Time and Contact Drills..... | 28 |
| 5.3.9.9..... Transaction IDs | 28 |
| 5.3.10.4..... Establish CAISO Automated Dispatch System (ADS) Access | 29 |
| 5.3.11.2..... Establish web Outage Management System (WebOMS) Access | 30 |
| 5.3.12.3 Establish Access to Market Results Interface – Settlements (settlement quality meter data) | 30 |
| 5.3.13.4..... Submit Acknowledgement Forms | 34 |
| 5.3.14.5 Local Market Power Mitigation and Dynamic Competitive Path Assessment Requirements | |
| 5.3.14.5.1 Submit Affiliate Information | 32 |
| 5.3.14.5.2 Resource Control Information | 33 |
| 5.3.15.6..... Execute Agreements | 34 |

| | | |
|---|---|-------------|
| 5.4 | Rejection..... | <u>3635</u> |
| 5.5 | Other Registration and Certification Processes..... | <u>3635</u> |
| 5.5.1 | Additional SCID Registration | <u>3635</u> |
| 5.5.2 | AS Certification | <u>3635</u> |
| 5.5.3 | NERC Registration | <u>3635</u> |
| 5.5.4 | CRR Registration | 36 |
| 5.5.5 | Demand Response Provider Registration..... | <u>3736</u> |
| 5.5.6 | Convergence Bidding Registration | <u>3736</u> |
| 5.5.7 | Energy Imbalance Market (EIM) | <u>3837</u> |
| 5.6 | Ongoing Obligations | <u>4039</u> |
| 5.6.1 | Failure to Inform | <u>4039</u> |
| 5.6.2 | Training & Testing | <u>4039</u> |
| 5.6.3 | CAISO-Initiated Limitation or Suspension of Convergence Bidding Activity..... | <u>4140</u> |
| 5.6.4 | CAISO-Initiated Termination..... | <u>4140</u> |
| 5.6.5 | SC Initiated Self-Termination..... | <u>4241</u> |
| 5.6.6 | Processes and Consequences of Termination | <u>4241</u> |
| 5.6.7 | Notification | <u>4241</u> |
| 5.6.8 | Continuation of Service | <u>4342</u> |
| 5.7 | Operations | <u>4443</u> |
| Attachment A..... | | 5-1 |
| SC Applicant Certification Matrix..... | | 5-1 |
| Attachment B..... | | 1 |
| Scheduling Coordinator Application Form | | 1 |
| Attachment C..... | | 1 |
| Additional Information..... | | 1 |
| Attachment D..... | | 5 |
| Letter of Agency..... | | 5 |
| Attachment E..... | | 3 |
| Resource Control Agreement Information Examples..... | | 3 |

1. Introduction

Welcome to the CAISO *BPM for Scheduling Coordinator Certification & Termination and Convergence Bidding Entity Registration & Termination*. In this Introduction you will find the following information:

- The purpose of CAISO BPMs
- What you can expect from this CAISO BPM
- Other CAISO BPMs or documents that provide related or additional information

1.1 Purpose of California CAISO Business Practice Manuals

The Business Practice Manuals (BPMs) developed by CAISO are intended to contain implementation detail, consistent with and supported by the CAISO Tariff, including: instructions, rules, procedures, examples, and guidelines for the administration, operation, planning, and accounting requirements of CAISO and the markets. Purpose of this Business Practice Manual Each Business Practice Manual is posted in the BPM Library at: <http://bpmcm.caiso.com/Pages/BPMLibrary.aspx>. Updates to all BPMs are managed in accordance with the change management procedures included in the [Business Practice Manual for BPM Change Management](#).

1.2

The *BPM for Scheduling Coordinator Certification & Termination and Convergence Bidding Entity Registration & Termination* covers the process that an applicant must complete in order to become a certified Scheduling Coordinator (SC) eligible to transact business directly with the CAISO. It also addresses ongoing responsibilities of a certified Scheduling Coordinator in order to maintain its SC status. In order to participate in the CAISO Market an entity must qualify as an SC. The agreements required for a certified SC are cited and referenced. In addition, this BPM covers the convergence bidding registration process and addresses the requirement for the convergence bidding entity to either use an SC or become a certified Scheduling Coordinator (SC).

In this BPM you will find:

- A description of the application and certification process to become an SC.
- A listing of obligations, responsibilities and operations necessary for an SC to maintain its SC certification status.

- General information of use to a scheduling coordinator (SC).
- A description of the convergence bidding (CB) registration form and applicable requirements for CB registration.

The provisions of this BPM are intended to be consistent with the CAISO Tariff. If the provisions of this BPM nevertheless conflict with the CAISO Tariff, the CAISO is bound to operate in accordance with the CAISO Tariff. Any provision of the CAISO Tariff that may have been summarized or repeated in this BPM is only to aid understanding. Even though every effort will be made by CAISO to update the information contained in this BPM and to notify Market Participants of changes, it is the responsibility of each Market Participant to ensure that he or she is using the most recent version of this BPM and to comply with all applicable provisions of the CAISO Tariff.

A reference in this BPM to the CAISO Tariff, a given agreement, or any other BPM or instrument, is intended to refer to the CAISO Tariff, that agreement, BPM or instrument as modified, amended, supplemented or restated.

The captions and headings in this BPM are intended solely to facilitate reference and not to have any bearing on the meaning of any of the terms and conditions of this BPM.

1.3 References

Note to Reader: The definition of acronyms and words beginning with capitalized letters are provided in the *BPM for Definitions & Acronyms*.

The following references are related to this BPM:

- Other CAISO BPMs
- The CAISO Tariff, as it may be amended
- Credit Management Business Practice Manual
- CAISO Information Security Services: CAISO Information Security Requirements for the Energy Communication Network (ECN)

Current versions of these documents are posted on the CAISO Website.

2. Entities that Require SC Representation

CAISO Tariff Section 4.3.1.2, regarding the relationship between the CAISO and Participating Transmission Owners

CAISO Tariff Section 17, Transmission Ownership Rights ("TOR"), including Section 17.1.2, TOR Scheduling Coordinator Responsibilities

CAISO Tariff Section 4.6, Relationship Between CAISO and Generators

CAISO Tariff Section 4.7, Relationship Between CAISO and Participating Loads

CAISO Tariff Section 4.8, Relationship Between CAISO and Eligible Intermittent Resources and Between the CAISO and Participating Intermittent Resources

CAISO Tariff Section 4.5.4.3, Dynamic Scheduling

CAISO Tariff Section 4.4.1, General Nature of Relationship Between CAISO and UDCs

CAISO Tariff Section 4.9.5, Scheduling by or on behalf of a MSS Operator

CAISO Tariff Section 4.13.1, Relationship Between CAISO and Demand Response Providers

CAISO Tariff Section 4.5.2.2, SCs Representing Convergence Bidding Entities

CAISO Tariff Section 4.14, Relationship Between the CAISO and Convergence Bidding Entities

CAISO Tariff Section 29.4 Relationship Between the CAISO and an EIM Entity

CAISO Tariff Section 29.4 Relationship Between the CAISO and an EIM Participating Resource

SCs may represent many different types of entities in their interactions with the CAISO.

Many different entities are required to use an SC with regard to interactions with the CAISO. For the most part, only SCs are authorized to transact business directly with the CAISO. The primary need for an SC is to facilitate participation in the CAISO Markets. This section describes the types of entities that require SC representation, a brief description of the types of activities these entities perform, and roles these entities undertake that may necessitate representation by an SC.

All entities transacting business with the CAISO, either directly or through an SC, must verify their relationship choices and alignments to the CAISO by providing a written notification to their CAISO Client Representative or to the CAISO contact specified in a contract with the CAISO as responsible for accepting notices. Specifically, an SC is required to submit written notification to

the CAISO identifying the entities and types of entities it will be representing. A represented entity is required to execute an appropriate agreement with the CAISO and provide the CAISO with written notification identifying the SC that will represent it.

- Participating Transmission Owners (PTOs) – In order to submit Bids to the CAISO, a PTO, including any New PTO, must either become or obtain the services of a certified SC. The CAISO does not accept Bids for a PTO other than through a certified SC. The SC must not be the entity's Responsible PTO in accordance with the Responsible Participating Transmission Owner Agreement, unless mutually agreed between the two parties.
- Non-Participating Transmission Owners (Non-PTOs) – In order to submit Bids to the CAISO, including Transmission Ownership Right (TOR) Self-Schedules using only the Non-PTO's Transmission Ownership Rights in the CAISO Balancing Authority Area, a Non-PTO must also become or use the services of a certified SC. The CAISO does not accept Bids, including TOR Self-Schedules using only the Non-PTO's TORs in the CAISO Balancing Authority Area, for a Non-PTO other than through a certified SC. In addition, in order for the CAISO to accommodate TORs appropriately, the Non-PTO must submit to the CAISO Transmission Rights and Transmission Curtailment Instructions describing its TORs.
- Generating Units – In order to submit Bids to the CAISO, a Generator, including a Generator with a Qualifying Facility, must either become or obtain the services of a certified SC. The CAISO does not accept Bids for any Generating Unit interconnected directly or indirectly to the CAISO Controlled Grid, including a Qualifying Facility, other than those submitted by a certified SC.
- Load – In order to submit Bids to the CAISO, a Load Serving Entity (LSE), including any Participating Load, must either become or obtain the services of a certified SC. The CAISO does not accept submitted Bids for Demand from LSEs or Bids for Demand or Supply of Energy and Ancillary Services from a Participating Load other than those submitted through a certified SC.
 - If bidding or scheduling Load, an SC must have an executed Meter Service Agreement for SCs (MSA SC) in place with the CAISO.
- Demand Response Providers – In order to submit Bids and act as proxy for a Proxy Demand Resource, a Demand Response Provider (DRP) must either become or obtain the services of a certified SC.
 - If bidding or scheduling Proxy Demand Resources for a DRP, an SC must have an executed Meter Service Agreement for SCs (MSA SC) with the CAISO.

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- Eligible Intermittent Resources – In order to submit Bids to the CAISO, the owner or operator of an Eligible Intermittent Resource must either become or obtain the services of a certified SC. The CAISO does not accept Bids for an Eligible Intermittent Resource other than through a certified SC.
 - System Resources – In order to submit Bids to the CAISO, the owner or operator of a System Resource must either become or obtain the services of a certified SC. In addition, the following requirements apply to bidding and scheduling of System Resources:
 - Resource-Specific System Resources must be registered with the CAISO, have a Resource ID and provide the CAISO with operational characteristics similar to a Generating Unit internal to the CAISO Balancing Authority Area.
 - Non-Resource-Specific System Resources need to register the Scheduling Point that they utilize for scheduling purposes as well as the unique ID associated with the System Resource.
 - There are four types of System Resources identified in the CAISO Tariff:
 - ❖ *Non-Dynamic*: not having satisfied the CAISO's contractual and operational requirements for submitting a Dynamic Schedule;
 - ❖ *Dynamic*: having satisfied the CAISO's contractual and operational requirements for submitting a Dynamic Schedule;
 - ❖ *Non-Dynamic Resource-Specific*: a Non-Dynamic System Resource that is a specific generation resource outside the CAISO Balancing Authority Area; and
 - ❖ *Dynamic Resource-Specific*: a Dynamic System Resource that is a specific generation resource outside the CAISO Balancing Authority Area.
 - Utility Distribution Companies (UDCs) – In order to submit Bids to the CAISO, a UDC must either become or obtain the services of a certified SC. The CAISO does not accept Bids for a UDC other than through a certified SC.
 - Metered Subsystems (MSSs) – In order to submit Bids to the CAISO, an MSS Operator must either become or obtain the services of a certified SC. The CAISO does not accept Bids for an MSS other than through a certified SC.
 - Convergence Bidding Entities – In order to participate in the convergence bidding market, a Convergence Bidding Entity must either become or obtain the services of a certified SC.

- EIM Entity – In order to participate in the Energy Imbalance Market an EIM Entity must qualify as or secure representation by no more than one EIM Entity Scheduling Coordinator
- EIM Participating Resource -- In order to participate in the Energy Imbalance Market an EIM Participating Resource must either become or obtain the services of a certified EIM Participating Resource SC.

In the event that an entity with a contractual relationship with a certified SC provides data and/or information directly to the CAISO, the CAISO must make available the data and/or information to the certified SC upon receipt of reasonable notice.

3. Types of Activities or Representation

An SC Applicant selects the types of business it plans to perform and represent in the CAISO Markets. The SC Applicant makes this selection on the Scheduling Coordinator Application Form (Attachment C). If a certified SC changes its activities or representation from what it was originally certified to conduct or represent, then it may be subject to additional certification and contract requirements that were not applicable in the initial certification.

An SC may have and represent multiple business types with different contract and certification requirements applicable to each. All SC Applicants are required to execute an SC Agreement (SCA).

Common Business Types and Contract Obligations:

- **Inter-SC Trades**

The SC may choose only to engage in Inter-SC Trades. In this case, the SC would not represent any other entities and would not be required to enter into any agreements other than the SCA or to obtain any certifications from the CAISO.

- **CAISO Balancing Authority Area Generating Units without Ancillary Services (AS) capability**

The SC may represent Generators with Generating Units in the CAISO Balancing Authority Area without the capability to, or choosing not to, provide AS. Typically, the represented Generator would be required to enter into a Participating Generator Agreement (PGA) and Meter Service Agreement for CAISO Metered Entities (MSA ISOME) with the CAISO. SCs representing Generators that are SC-Metered must enter into a Meter Service Agreement for Scheduling Coordinators (MSA SC). The Generator could alternatively enter into a Qualifying Facility (QF) PGA if it were a QF and were to choose that form of contract. The Generator could also be required to enter into a Reliability Must-Run (RMR) Contract with the CAISO or to obtain CAISO certification as a Participating Intermittent Resource (PIR) if the Generator were to choose and be eligible to do so.

- **CAISO Balancing Authority Area Generating Units with AS capability**

The SC may represent Generators with Generating Units in the CAISO Balancing Authority Area that have the capability to and choose to provide AS. In addition to entering into a PGA or QF PGA and MSA ISOME (and possibly entering into an RMR Contract or obtaining PIR certification), the represented Generator would also be required to obtain CAISO certification of its ability to provide each type of AS that it desires to provide to the CAISO. SCs representing Generators that are SC-Metered must enter into a Meter Service Agreement for Scheduling Coordinators (MSA SC).

- **CAISO Balancing Authority Area Load not directly connected to the CAISO Controlled Grid**

The SC may represent Load in the CAISO Balancing Authority Area not directly connected to the CAISO Controlled Grid. Typically, the SC would be required to enter into a Meter Service Agreement for Scheduling Coordinators (MSA SC) with the CAISO.

Among the types of entities with Load the SC could represent would be a UDC or MSS, which represented entities would be required to enter into a UDC Operating Agreement or an MSS Agreement, respectively, with the CAISO.

- **CAISO Balancing Authority Area Load directly connected to the CAISO Controlled Grid**

The SC may represent Load in the CAISO Balancing Authority Area directly connected to the CAISO Controlled Grid, including a UDC or MSS. Typically, the represented Load would be required to enter into an MSA ISOME with the CAISO, except that the applicable terms of the MSA ISOME are incorporated into the MSS Agreement for MSSs.

- **CAISO Balancing Authority Area Load with AS Capability**

The SC may represent Load in the CAISO Balancing Authority Area that has the capability to and chooses to provide AS. In addition to entering into an MSA ISOME, the represented Load would be required to enter into a Participating Load Agreement (PLA) with the CAISO and to obtain CAISO certification of its ability to provide AS to the CAISO.

- **Non-dynamic Energy imports into the CAISO Balancing Authority Area**

The SC may represent entities with Non-Dynamic System Resources that wish to import Energy into the CAISO Balancing Authority Area. No additional agreements with the CAISO (other than the SCA) or certifications from the CAISO would be required.

- **Imports of dynamic Energy and AS into the CAISO Balancing Authority Area**

The SC may represent entities with Dynamic System Resources that wish to submit Dynamic Schedules to import Energy or AS into the CAISO Balancing Authority Area. In addition to the System Resource obtaining CAISO certification of its ability to provide each type of AS that it desires to provide to the CAISO, the SC would be required to enter into a Dynamic Scheduling Agreement (DSA) for SCs and would be required to obtain CAISO certification of the functionality for Dynamic Schedules and obtain a Scheduling Coordinator Certificate of Imports. In addition, the Host Balancing Authority Area and any intermediary Balancing Authority Area would have to enter into an agreement with the CAISO to facilitate the submittal of Dynamic Schedules.

- **Proxy Demand Resources**

The SC may represent Demand Response Providers for Proxy Demand Resources in the CAISO Balancing Authority Area that have the capability to adjust demand in response to CAISO Dispatch Instructions. In addition to entering into an SCA and MSA SC, the SC must ensure that the Demand Response Provider has entered into a Proxy Demand Resource Agreement (PDRA) with the CAISO and registered pursuant to CAISO Tariff Section 4.13.

- **Convergence Bidding Entity**

The SC may represent a Convergence Bidding Entity in the convergence bidding market by submitting Virtual Bids under an agreed-upon and registered designated SCID for the purpose of convergence bidding pursuant to CAISO Tariff Section 4.14.2.3. The represented convergence bidding entity would be required to enter into a Convergence Bidding Entity Agreement (CBEA) by registering as a convergence bidding entity using

the agreed upon SCID. In the event that the Scheduling Coordinator will represent additional Convergence Bidding Entities or modifies any of the SCIDs that the Scheduling Coordinator will use to submit Virtual Bids on behalf of any Convergence Bidding Entity, the Scheduling Coordinator will provide the CAISO with an updated list of Convergence Bidding Entities and/or SCIDs at least eleven (11) business days prior to submitting a Virtual Bid involving a Convergence Bidding Entity and/or SCID not already included in the most recent list provided to the CAISO.

- **Energy Imbalance Market**

The SC may represent an EIM Entity in the EIM by executing an EIM Entity Scheduling Coordinator Agreement and Metered Service Agreement for SCs in order to schedule all load and resources in the balancing authority area that do not participate in the Real-Time Market (known as non-participating load or non-participating resources) and for settling charges and payments related to non-participating load and non-participating resources.

The SC may represent an EIM Participating Resource in the EIM by executing an EIM Participating Resource Scheduling Coordinator Agreement and Metered Service Agreement for SCs in order to schedule and bid into the Real-Time Market. An EIM Participating Resource SC cannot be an EIM Entity SC. Refer to the EIM Business Practice Manual.

Exhibit 3 -1: Entity Contract Obligation by Business Type

| Business Type | Executed SC Agreements (agreement examples listed on the CAISO Website) | Additional Agreement or Certification Requirements for the business type [Refer to the CAISO Website for more information.] |
|---|--|---|
| Inter SC Trades | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) | |
| CAISO Balancing Authority Area Generation without AS Capability | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) Meter Service Agreement for Scheduling Coordinators (MSA SC) (as applicable) | <ul style="list-style-type: none"> PIR Certification (as applicable) Participant Generation Agreement (PGA) or Qualifying Facility (QF) PGA Meter Service Agreement for CAISO Metered Entities (MSA ISOME) Reliability Must Run (RMR) Contract (as applicable) |
| CAISO Balancing Authority Area Generation with AS Capability | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) Meter Service Agreement for Scheduling Coordinators (MSA SC) (as applicable) | <ul style="list-style-type: none"> PIR Certification (as applicable) AS Certification Participant Generation Agreement (PGA) or Qualifying Facility (QF) PGA Meter Service Agreement for CAISO Metered Entities (MSA ISOME) Reliability Must Run (RMR) Contract (as applicable) |
| CAISO Balancing Authority Area Load Non-CAISO Grid- Connected | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) Meter Service Agreement for Scheduling Coordinators (MSA SC) | <ul style="list-style-type: none"> Utility Distribution Company (UDC) Operating Agreement (as applicable) <p>Metered Subsystem (MSS) Agreement (as applicable)</p> |
| CAISO Balancing Authority Area Load CAISO Grid- Connected | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) Meter Service Agreement for Scheduling Coordinators (MSA SC) (as applicable) | <ul style="list-style-type: none"> Metered Service Agreement for CAISO Metered Entities (MSA ISOME) Metered Subsystem (MSS) Agreement (as applicable) Utility Distribution Company (UDC) Operating Agreement (as applicable) Participating Load Agreement (as applicable) |
| CAISO Balancing Authority Area Load with AS Capability | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) Meter Service Agreement for Scheduling Coordinators (MSA SC) (as applicable) | <ul style="list-style-type: none"> AS Certification Participating Load Agreement (PLA) Meter Service Agreement for |

| Business Type | Executed SC Agreements (agreement examples listed on the CAISO Website) | Additional Agreement or Certification Requirements for the business type [Refer to the CAISO Website for more information.] |
|--|---|---|
| | applicable) | CAISO Metered Entities (MSA ISOME) |
| Non-dynamic Energy Imports into the CAISO Balancing Authority Area | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) | |
| Imports of dynamic Energy and AS into the CAISO Balancing Authority Area | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) Dynamic Scheduling Agreement for SCs | <ul style="list-style-type: none"> Dynamic Scheduling Capability Certification AS Certification (as applicable) ICAOA/DSHCAOA/other equivalent agreement |
| Proxy Demand Resources | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) Meter Service Agreement for Scheduling Coordinators (MSA SC) | <ul style="list-style-type: none"> Demand Response Provider registration AS certification (as applicable) Proxy Demand Resource Agreement (PDRA) |
| Convergence Bidding | <ul style="list-style-type: none"> Scheduling Coordinator Agreement (SCA) Convergence Bidding Entity Agreement (CBEA) | <ul style="list-style-type: none"> Convergence Bidding registration |
| Energy Imbalance Market Participant | <ul style="list-style-type: none"> EIM Entity Scheduling Coordinator Agreement EIM Participating Resource Scheduling Coordinator Agreement Metered Service Agreement for Scheduling Coordinators | <ul style="list-style-type: none"> EIM Entity establishment process EIM Entity Agreement EIM Participating Resources registration/implementation process EIM Participating Resource Agreement |

4. Scheduling Agent Designation

The CAISO Tariff does not preclude an SC from meeting some of its certification requirements through the use of a Scheduling Agent. For example, the Scheduling Agent may provide the 24 hours x 365 days scheduling/Dispatch operation and the meter data management aspects of SC operation. Any agreements between an SC and its Scheduling Agent are solely between those two entities and do not directly involve CAISO.

An SC Applicant is responsible for and must meet all CAISO SC certification requirements in order to receive SC certification. However, the certification requirements to complete real time and contact drills and the establishment of OMAR system connectivity and functionality of other technical systems may be completed by the Scheduling Agent acting on behalf of the SC Applicant. If the SC Applicant intends to use a Scheduling Agent to fulfill some or all of its responsibilities as an SC, any of the certification requirements set forth in Section 5 for which the Scheduling Agent will be fulfilling the SC Applicant's responsibilities will be considered satisfied by the prior certification of the Scheduling Agent as an SC.

The SC itself, not the Scheduling Agent, is ultimately responsible for all CAISO Market and administrative costs, scheduling, operating performance, and CAISO network security, as well as contractual and financial Settlement issues consistent with its executed SCA.

If, after the SC Applicant is certified as an SC, the SC decides to discontinue use of a Scheduling Agent, the SC must give 60-days advance written notice to the CAISO identifying the change in its relationship with the Scheduling Agent, and the SC will be required to satisfy all requirements that were fulfilled by the Scheduling Agent during the SC certification process. Failure to do so may result in decertification of the SC and termination of the SC's Scheduling Coordinator Agreement.

Any SC that intends to use a Scheduling Agent must submit a letter of agency as part of the application process. A template for the letter of agency is set forth in Attachment D.

5. SC Certification Process

Welcome to the SC Certification Process section of the *BPM for Scheduling Coordinator Certification & Termination and Convergence Bidding Entity Registration & Termination*.

In this section you will find the following information:

- A high-level timeline for the SC certification process
- How to apply to become an SC
- What certification requirements the SC Applicant must fulfill to become a SC

5.1 Application Timeline

CAISO Tariff Section 4.5.1.1.4, Scheduling Coordinator Applicant Returns Application

CAISO Tariff Section 4.5.1.1.5, Notice of Receipt

CAISO Tariff Section 4.5.1.1.6, CAISO Review of Application

CAISO Tariff Section 4.5.1.1.7, Deficient Application

CAISO Tariff Section 4.5.1.1.7.1, Scheduling Coordinator Applicant's Additional Information

CAISO Tariff Section 4.5.1.1.7.2, No Response from Scheduling Coordinator Applicant

CAISO Tariff Section 4.5.1.1.8.2, Time for Processing Application

CAISO Tariff Section 4.5.1.1.9.1, Scheduling Coordinator Applicant's Acceptance

CAISO Tariff Section 4.5.1.1.11, Final Certification of Scheduling Coordinator Application

At least 120 days prior to the proposed start of service, the SC Applicant must submit a completed application form to the CAISO with a non-refundable application fee.

Within three (3) business days of receiving the application, CAISO sends an electronic notification to the SC Applicant stating that it has received the application and fee. A CAISO Representative will assist the applicant throughout the certification process.

Within ten (10) business days after receiving an application, the CAISO notifies the SC Applicant if the submittal includes all of the necessary information that is required by CAISO. If the application is deemed to be deficient, the CAISO sends electronic notification of the deficiency to the SC Applicant explaining the deficiency and requesting additional clarifying information. The SC Applicant has five (5) business days (or longer if the CAISO agrees) to

provide the additional material that is requested. If the SC Applicant does not submit the additional information that was requested by the CAISO within five (5) business days (or a longer agreed upon period) then the application may be rejected by the CAISO.

The CAISO makes a decision whether to accept or reject an application within ten (10) business days of receipt of the complete application (including any additional or clarifying material that may have been requested).

If the application is accepted, then all certification requirements and applicable contracts must be executed by the applicant and returned to the CAISO no later than ten (10) business days prior to the proposed start of service.

5.1.1 Application Sunset Provision

The SC Applicant has twelve (12) months to complete and pass the requirements for certification. If certification is not completed within twelve (12) months from the initial submittal date, the CAISO can close the application upon the provision of thirty (30) days advance notice. At a later date, if the SC Applicant wishes to again pursue certification, a new application and fee is required.

5.2 Submit Scheduling Coordinator Application Form

CAISO Tariff Section 4.5.1.1.6.1, Information Requirements

To commence the SC application process, an SC Applicant must complete the Scheduling Coordinator Application Form that is located in Attachment B of this document, and then;

- 1) Send a signed electronic copy of the application form to SCRequests@caiso.com; and
- 2) Submit the \$5,000.00 application fee by wire to the account below:

Bank ABA No. 121000248
Account No. 4122041783
Bank Name: Wells Fargo Bank
Account Name: CONCENTRATION

- 3) Otherwise, send a hardcopy of the application form, including the \$5000.00 non-refundable application fee to:

California ISO
Customer Service and Stakeholder Affairs
ATTN: Scheduling Coordinator Application Processing Office
250 Outcropping Way
Folsom, CA 95630

Please make check or money order payable to: The California Independent System Operator Corporation

An application is considered submitted once the application and fee are received by the CAISO.

If there are any questions regarding the application or certification process, please contact the CAISO at SCRequests@caiso.com.

5.3 Certification Requirements

Once an SC Applicant's application is accepted, a CAISO Representative will contact the SC Applicant to begin the certification process. This section outlines the certification requirements that the SC Applicant needs to fulfill to become certified to participate in the CAISO Markets. Any SC Applicant that intends to use a Scheduling Agent must submit a letter of agency along with the application and fee or prior to beginning the certification process. Refer to Section 4 for additional information.

Note: Attachment A sets forth a summary listing of the certification requirements that an SC Applicant must complete prior to participating in the CAISO Market, including the requirements that may be fulfilled by a Scheduling Agent.

5.3.1 Establish Financial Security with CAISO and meet the Minimum Participation Requirements (FERC Order 741)

In order to participate in the CAISO Markets, each prospective Market Participant must satisfy all the minimum participation requirements set out in FERC Order 741 and are subject to the credit policy as documented in Section 12 of the CAISO Tariff.

An SC Applicant can satisfy its initial Financial Security requirement by applying for unsecured credit or posting an approved form of Financial Security. The BPM for Credit Management outlines the options for satisfying the CAISO's Financial Security requirements. Information submitted to the CAISO by an SC Applicant for the purpose of establishing Financial Security will be treated as confidential and not subject to disclosure.

5.3.1.1 Establish CAISO minimum participation requirement

The CAISO recommends that an SC Applicant understand the minimum participation requirements and its Financial Security requirement prior to submitting the Scheduling Coordinator Application Form, to ensure the Financial Security requirement can be completed in a reasonable timeframe. Estimated time to complete this process is approximately ten (10) business days.

Most entities will satisfy these requirements if they can attest to one or more of the following:

- A net worth of \$1 million;
- Total assets of \$10 million; or
- Credit support in the form of a guaranty or Letter of Credit from another entity that qualifies as an "appropriate person".

5.3.1.2 Officer Certification and Risk Policies

An officer of each prospective and existing Market Participant with a direct financial relationship with the CAISO shall complete and provide to the CAISO, on an annual basis, an executed certified statement that follows the standardized format of the Officer Certification Form available on the CAISO's website. The initial Officer Certification Form must be submitted to the CAISO during the Scheduling Coordinator certification process for the prospective or existing Market Participant, as applicable.

Risk Management Policies, Procedures and Controls

Each prospective or existing Market Participant that is a Scheduling Coordinator applicant is also required to provide additional summary information and attestations relating to their risk management policies, procedures and controls as set forth in the Officer Certification Form. Each prospective or existing Market Participant that is a Scheduling Coordinator applicant and that meets the net portfolio value criterion contained in the Officer Certification Form is additionally required to submit to the CAISO, at the time it submits its Officer Certification Form, a copy of its current governing risk management policies, procedures and controls applicable to its scheduling and bidding activities.

All CAISO Credit Requirements can be found in the BPM for Credit Management. Refer to that specific BPM for further details.

5.3.2 Establish Network Interface

This requirement enables the SC Applicant to have access to the CAISO Market applications. These applications are available over two network interfaces: internet and ECN. The SC Applicant determines which network interface best meets its needs during the certification process. If an SC Applicant selects ECN, then a Network Connectivity Security Requirement and Agreement must be submitted prior to completion of the certification process (refer to Section 5.3.2.3 for more information).

5.3.2.1 Internet

There is no Service Level Agreement (SLA) between an SC and the CAISO for ensuring connectivity. If the internet carrier selected by an SC has an availability issue, it may affect the SC's ability to communicate with the CAISO. The internet has little or no cost for setup and maintenance and minimal setup time.

5.3.2.2 ECN

ECN is a secure private network and is run entirely by AT&T. There is a monthly cost associated with ECN depending on which service package is selected.

The estimated set up time is approximately thirty (30) business days and additional information can be obtained at:

[CAISO Information Security Requirements for the Energy Communication Network \(ECN\)](#)

5.3.2.3 Submit Network Connectivity Security Agreement

This requirement applies to SC Applicants using ECN.

SCs must employ several different computer systems and subsystems to properly participate in CAISO Markets. In employing these systems and in all communications with the CAISO, SCs must adhere to the computer system security requirements of the CAISO.

The Network Connectivity Security Agreement establishes a commitment to mutually assure security of proprietary information. The SC Applicant must provide three (3) signed originals of the agreement to its Customer Services representative. The name entered on the signature line must match the name listed on the Scheduling Coordinator Application Form.

Form location can be obtained at:

[Network Connectivity Security Requirements & Agreement](#)

5.3.3 User Access Administrator

At a minimum, a primary and secondary User Access Administrator (UAA) must be established for each entity doing business with the CAISO. This allows the CAISO to continue communications with an entity regarding user access requests when one UAA is not available. The establishment of UAAs must be made by an individual at the external entity that has an appropriate level of authority to designate UAAs. For SCs, UAAs must be identified in the initial SC certification process established with CAISO's Customer Services department. Any business changes that impact the scope, areas of responsibility, or individuals assigned as a UAA contact must be communicated to CAISO by one of the UAAs or another authorized company representative. The UAA will have access to the Access and Identity Management (AIM) tool once the entity has an effective ID in the master file. At that time the UAA is authorized to request access for users.

[ISO Application Access User Access Administrator Establishment and Requirements](#)

[ISO Application Access User Access Administrator Establishment and Change Form](#)

[Access and Identify Management \(AIM\) User Guide](#)

5.3.4 Request Application Access

CAISO Tariff Section 6.2.1.3, Individually Assigned Login Accounts

In order to gain access to the CAISO Market applications, the designated UAA for the SC Applicant will request access for the appropriate users through the Access and Identify Management (AIM) tool once the SC applicant is fully certified with an effective date in the master file. For any system not provisioned AIM, an Application Access Request Form (AARF) will need to be submitted. Access to CAISO Market applications will occur after the SCID for the SC Applicant is effective in the Master File. The SCID will have a specified effective date for the certification of the SC that allows for application access approval. The effective trade date for the SC, which will be the Trading Date on which the SC will be able to begin participating in the CAISO Markets, will be based on the application access process and will be approximately six (6) business days.

A person may receive more than one digital certificate depending on the requested application(s). In some cases, one digital certificate enables an individual to see multiple applications. In other cases, there may be additional digital certificate issued for legacy applications.

Exhibit 5-3: CAISO Market Applications Access Based on Business Type

| CAISO Market Applications | Business Type |
|--|--|
| AIM (Access and Identity Management) | All |
| BSAP (Base Schedule Aggregator Portal) | Energy Imbalance Market Participants |
| CIRA (CAISO Interface for Resource Adequacy) | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability CAISO Balancing Authority Area Load with AS Capability |
| SIBR (Scheduling Infrastructure Business Rules) | All |
| MRI-S Market Results Interface Settlements Note: MRI-S is the reporting interface that delivers SaMC output (invoices and settlements). | All |
| Credit Management System | All |
| CIDI (Customer. Inquiry, Dispute and Information) | All |
| CMRI (Customer Market Results Interface) | All |
| CRR (Congestion Revenue Rights) | Refer to the BPM for CRR Registration |
| ADS (Automated Dispatch System) | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability CAISO Balancing Authority Area Load with AS Capability Non-dynamic Energy Imports into the CAISO Balancing Authority Area (as applicable) Imports of dynamic Energy and AS into the CAISO Balancing Authority Area Proxy Demand Resources with AS capability |
| WebOMS (Outage Management System) | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability Proxy Demand Resources |
| SDS (Settlement Dispute System) | All |

| | |
|--|--|
| Master File User Interface | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability Non-dynamic Energy Imports into the CAISO Balancing Authority Area (as applicable) Imports of dynamic Energy and AS into the CAISO Balancing Authority Area |
| MRI-S (Market Results Interface – Settlement Quality Meter Data Submission) | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability CAISO Balancing Authority Area Load Non-CAISO Grid-Connected CAISO Balancing Authority Area Load CAISO Grid-Connected CAISO Balancing Authority Area Load with AS Capability Proxy Demand Resources with AS capability Energy Imbalance Market Participants |
| RMR (discussion board) | CAISO Balancing Authority Area Generation without AS Capability (as applicable) CAISO Balancing Authority Area Generation with AS Capability (as applicable) |
| RMR Client (smart cards) | CAISO Balancing Authority Area Generation without AS Capability (as applicable) CAISO Balancing Authority Area Generation with AS Capability (as applicable) |
| PIRP (Participating Intermittent Resource program) | CAISO Balancing Authority Area Generation without AS Capability (as applicable) CAISO Balancing Authority Area Generation with AS Capability (as applicable) |
| DRS (Demand Response System) | Proxy Demand Resources |

[Application Access](#)

5.3.5 Attend Complete Training and Testing

Scheduling Coordinators are required to demonstrate to the CAISO's reasonable satisfaction that they are capable of performing the functions of the applicable type of Scheduling Coordinator(s) as part of the initial application process, and maintain certification on an ongoing basis.

To meet these requirements, employees who will engage in Scheduling Coordinator activities must complete the training and testing requirements for the applicable Scheduling Coordinator type(s) prior to engaging in Scheduling Coordinator activities.

These training and testing requirements are posted in the training section of the CAISO website, and are expected to update over time.

All employees engaged in Scheduling Coordinator activities must complete the training and testing requirements posted at the time of their expected assignment. These requirements may be different from those posted at the time of initial Scheduling Coordinator application.

In addition, the CAISO highly recommends that appropriate Scheduling Coordinator employees take CAISO settlements training. These training sessions are also posted in the training section of the CAISO website. The SC Applicant is required to complete training, which consists of:

~~CAISO SC Certification Workshop. Two to three participants should attend. The target audience is the trader or scheduler. In addition, an additional participant should act as a representative to take back information to the SC applicant entity for topics covering ongoing obligations and information not specific to the markets. The CAISO highly recommends that the appropriate settlements personnel take the offered settlements courses. These are posted in the CAISO catalog that can be found on the following web page:~~

~~CAISO Training Web Page~~

~~The CAISO continues to evaluate and determine the required training curriculum. Entities that are considering application should inquire about the training schedule so that they can obtain necessary training before they intend to operate. The CAISO SC Certification Workshop is offered on a quarterly basis. The CAISO Representative will provide information on registration and training logistics.~~

5.3.6 Complete Market Proficiency Test

~~The SC Applicant is required to take a test to demonstrate proficiency in submitting various types of Bids and Self-Schedules to the CAISO. The market proficiency test is offered during the SC Certification Workshop.~~

5.3.75.3.6-Electronic Funds Transfer (EFT) Test

This requirement ensures that a Scheduling Coordinator applicant can submit payments to, and receive payments from CAISO. The Scheduling Coordinator (SC) applicant is required to test its EFT functionality. The California ISO allows the use of the ACH payment services in addition to the Fed Wire payment system for all market transactions including settlement of invoices and collateral prepayments. Accordingly, market participants should select their preferred method of receiving payments **from** and remitting payments **to** the CAISO by completing the applicable sections of the Electronic Funds Transfer (EFT) form. The EFT form needs to be completed by all SC applicants.

[ISO Electronic Funds Transfer Procedure](#)
[ISO Electronic Funds Transfer Form](#)

5.3.85.3.7 Submit SC Emergency Plan

(Not applicable to financial only market participants)

The SC Applicant is required to provide an up-to-date emergency procedure to the CAISO, except applicants becoming certified only for Inter-SC Trades and/or convergence bidding. This procedure presents the following information:

- The method for providing alternative bidding and scheduling capability upon the loss of an SC's primary facilities
- Emergency power supply capabilities
- Emergency contact information

The SC emergency plan ensures that a procedure is in place that gives the SC the capability to submit, withdraw, or adjust Bids and Self-Schedules in the case of an emergency. The CAISO Representative will provide the emergency plan template to the SC Applicant.

[Scheduling Coordinator Forms](#)

5.3.95.3.8 Complete Real-Time and Contact Drills

(Not applicable to financial-only market participants)

All SC Applicants, except applicants becoming certified only for Inter-SC Trades and/or convergence bidding, must complete real-time and contact drills. These drills demonstrate a twenty-four hour real-time desk capability and sufficient understanding of the CAISO Markets to respond correctly to Dispatch Instructions in a timely manner. This test has three versions, requires approximately ten (10) business days to complete and is sometimes referred to as the grid ops test.

5.3.105.3.9 Transaction IDs

As of October 15, 2014 SC Applicants are no longer required to submit an Intertie resource data template (IRDT). New SCs will be required to utilize the Transaction ID via SIBR. These Transaction IDs will be created based on SC submission in the SIBR tool.

This is not required for resources that will remain as “registered” intertie resources. The “registered” intertie resource will require an IRDT submittal. Here are some examples:

- ETCs
- TORs
- Resources with RAB obligations
- Resources certified to provide AS
- Trans Bay Cable resource ID
- Resource recirculating resource ID
- Losses, inadvertent payback, emergency assistance
- MSS load following
- EIM transfer schedule defined by intertie and transmission service provider
- Dynamic schedules and pseudo ties

Once the SC applicant is fully certified with the appropriate executed agreements and an effective start date in the master file, they can gain access to the SIBR tool and begin scheduling utilizing the Transaction ID. Please note that this Transaction ID will replace the resource ID on the e-Tag.

5.3.115.3.10 Establish CAISO Automated Dispatch System (ADS) Access

Note: This requirement applies only to those SC Applicants representing Generation and Imports.

SC Applicants representing any Generation, Participating Loads, or Proxy Demand Resources with capability to provide Ancillary Services within the CAISO Balancing Authority Area or planning to import Generation at the CAISO Balancing Authority Area interties must utilize the Automated Dispatch System. ADS is a messaging system that allows for clear and unambiguous Dispatch Instructions to be sent from the CAISO to SCs. It is designed to accomplish timely and transparent Dispatch, logging, archival, and retrieval of information. ADS is implemented via the public internet and utilizes a 128-bit domestic encryption and Secure Sockets Layer communications technology. Request for access can only be submitted as of the effective start date in the master file.

The estimated time to complete this process is approximately six (6) business days. Additional information can be obtained at:

[Application Access](#)

5.3.125.3.11 Establish web Outage Management System (WebOMS) Access

Note: This requirement applies only to those SC Applicants representing Generation, Participating Load and/or Demand Response Resources. SCs representing Generating Units within the CAISO Balancing Authority Area must submit Generating Unit Outages through an on-line process referred to as outage management system (OMS) for the CAISO of California. Request for access can only be submitted as of the effective start date in the master file.

The estimated time to acquire access is approximately six (6) business days.

5.3.12-15.3.11.1 Obtain Outage Management (OMS) Training

Note: This training is optional and applies only to those SC Applicants representing Generation, Participating Load and/or Demand Response Resources.

Following the establishment of access to the outage management system, SC Applicants representing Generators, Participating Load and/or Demand Response Resources are encouraged to attend training. This training is posted on the CAISO website or can be held at the SC Applicant's facility by request, so outage management system access must be installed prior to the training.

Additional information can be obtained at:

[Application Access](#)

5.3.135.3.12 Establish Access to Market Results Interface – Settlements (settlement quality meter data)

Note: This requirement applies only to those SC Applicants representing Generation and/or Load, including Proxy Demand Resources with the capability to provide Ancillary Services.

The MRI-S (metering) is a system allowing for the submittal and viewing of Settlement Quality Meter Data. Utilized by:

- Scheduling Coordinators of SC Metered Entities for submittal of Settlement Quality Meter Data (SQMD) to the CAISO
- Scheduling Coordinators for CAISO Metered Entities and CAISO Metered Entities to view the SQMD that is created by the polling of Revenue Quality Meter Data and the CAISO Validation, Estimation, and Editing (VEE) process to produce Settlement Quality Meter Data

MRI-S (metering) is a required system for SCs of SC Metered Entities, as they are required to submit SQMD on behalf of the entities they represent. SCs and SC Metered Entities can obtain

access to the MRI-S (metering) system by requesting a secured digital certificate. Request for access can only be submitted as of the effective start date in the master file.

The estimated time to complete this task is approximately six (6) business days. Additional information can be obtained at:

[Application Access](#)

5.3.145.3.13 Submit Acknowledgement Forms

An SC Applicant that intends to submit Bids and Self-Schedules for Generation must provide the necessary letters that assign the Resource IDs of the represented Generating Units to the SC Applicant and terminate any current SC rights to represent that resource. The Generating Unit owner must also submit a form indicating it is aware of the SC change. The SC acknowledgment form can only be submitted as of the effective start date in the master file.

Form letter templates can be obtained at:

[Scheduling Coordinators Letter Templates](#)

5.3.155.3.14 Local Market Power Mitigation and Dynamic Competitive Path Assessment Requirements

The purpose of requiring Scheduling Coordinators to report Affiliate information and information about the entity or entities that it controls or has contracted with another to control is to allow the CAISO to assign resources to the correct supplier portfolio in the Dynamic Competitive Path Assessment (DCPA). An entity controls a resource for that period of time if the entity determines the price and/or quantity of the bids that the resource's Scheduling Coordinator submits to the CAISO, and the entity stands to benefit financially from market outcomes impacted by the resource's bids during the period of control. If affiliate relationships and resource control arrangements are not accurately reported to the CAISO, and with enough lead time for the CAISO to reflect the appropriate affiliate and control relationships in its market software, the DCPA may not be able to accurately perform its function of identifying temporal non-competitive paths. As a result, market power mitigation process would not be able to accurately perform its function of mitigating temporal local market power where such temporal local market power may exist.

5.3.15.1 5.3.14.1 Submit Affiliate Information

Each SC applicant is required to submit an "Affiliate Information" form identifying any Affiliate that owns, controls, and/or schedules resources that may provide Energy or Ancillary Services

in the CAISO markets. With respect to a corporation, partnership or other entity, that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such corporation, partnership or other entity. After the Scheduling Coordinator applicant becomes a Scheduling Coordinator, the SC is required to submit a new “Affiliate Information” form on an ongoing basis when its affiliations change. Submission of affiliate changes should be submitted to the CAISO for processing at least 11 business days in advance of the effective affiliate change.

5.3.15.2 5.3.14.2 Resource Control Information

Each Scheduling Coordinator must register with the CAISO any resource subject to a Resource Control Agreement to which it or any Affiliate identified as required by section 5.3.15.1 is a party.¹ As defined by the CAISO Tariff, a “Resource Control Agreement” is “an agreement that gives an entity bidding, scheduling, and/operational control over a physical resource owned by or under a contract to another entity, or otherwise directs the manner in which such a resource participates in the CAISO markets.”

Scheduling Coordinators must identify resources subject to any Resource Control Agreement identified as pursuant to the CAISO’s disclosure requirement using a form and/or interface provided by the CAISO. After the Scheduling Coordinator applicant becomes a Scheduling Coordinator, the SC is required, on an ongoing basis, to submit a new “*Resource Control Agreement Information*” form whenever there are any changes. Resource Control Agreement data provided or withheld will be subject to the CAISO confidential data policy as well as Tariff provisions governing provision of accurate information and FERC provisions on market manipulation. Submitted data will be validated by matching information submitted by stated counterparties.

Each SC is required to submit the following information about any Resource Control Agreement to which the SC applicant, or any reportable Affiliate of the SC applicant, is a party as outlined in the Resource Control Agreement Information form: Submission of Resource Control Agreement Information should be submitted to the CAISO for processing at least eleven (11) business days in advance of the effective affiliate change.

- Resource ID: The Resource_ID of the resource subject to the control agreement as the Resource_ID is stored in the CAISO Master File (MF).
- Controlling Entity: the legal name of the Entity that, according to the present agreement between Controlling Entity and RCA Counterparty Entity, will control Resource ID between Start Date and End Date.

¹ Non-regulated Affiliates of public utilities will not be considered as affiliates of public utilities for purposes of determining a portfolio pursuant to ISO Tariff section 39.7.2.2.

- **RCA Counterparty Entity:** the legal name of the other Entity, besides the Controlling Entity, that is involved in the Resource Control Agreement. The RCA Counterparty Entity may be an Entity transferring control of the resource to the Controlling Entity; or it may be the Scheduling Coordinator registered to the resource's SCID if the RCA being reported is between this Scheduling Coordinator and the unaffiliated Controlling Entity.
- **Start Date:** Date (and time, if resource control arrangement is more granular than daily level) Resource Control Agreement begins.
- **End Date:** Date (and time, if resource control arrangement is more granular than daily level) Resource Control Agreement ends. If the control arrangement between the Controlling Entity and the RCA Counterparty Entity has no end date specified, please enter Dec 31, 2030.

The rest of this section provides some guidance and clarity on the types of Resource Control Agreements that Scheduling Coordinators need to provide the CAISO information on.

In order to accurately implement the Dynamic Competitive Path Assessment and analyze its results, the CAISO needs Scheduling Coordinators to report two general categories of Resource Control Agreements:

Category 1: Any agreement that gives an entity bidding, scheduling, and/or operational control over a physical resource owned or under contract to another entity.

Resource Control Agreements that transfer control of a resource from one entity to another unaffiliated entity must be reported to the CAISO. Scheduling Coordinators on both sides of the Resource Control Agreement must submit information to the CAISO about the Agreement. Any Scheduling Coordinator who is, or who is an Affiliate of, an entity that receives control of a resource through a Resource Control Agreement must submit Resource Control Agreement information. Any Scheduling Coordinator who is, or who is an Affiliate of, an entity that gives control of a resource to another entity through a Resource Control Agreement must submit Resource Control Agreement information.

Category 2: Any agreement under which one entity controls a resource that uses an SCID assigned to a Scheduling Coordinator that is not an Affiliate of the controlling entity.

Aside from Category 1 RCAs (where the agreement explicitly passes control from one entity to another), Resource Control Agreement information about a resource must also be submitted to the CAISO whenever the controlling entity of a resource is not the Scheduling Coordinator (or an Affiliate of the Scheduling Coordinator) registered to the resource's SCID. Scheduling Coordinators on both sides of such a Resource Control Agreement must submit information to

the CAISO about the Agreement. Any Scheduling Coordinator who is, or who is an Affiliate of, the controlling entity of a resource that uses an SCID registered to an unaffiliated Scheduling Coordinator must submit Resource Control Agreement information. The Scheduling Coordinator that owns the SCID used by any resource that is controlled by an unaffiliated entity must also submit the Resource Control Agreement information.

Category 2 Resource Control Agreements can be viewed as Category 1 Resource Control Agreements, provided one understands the Dynamic Competitive Path Assessment (DCPA) default resource control assignment. In the absence of Resource Control Agreement information submitted to the CAISO, the DCPA process assumes the Scheduling Coordinator registered to the resource's SCID controls the resource. Therefore, if one entity controls a resource that uses an SCID registered to an unaffiliated Scheduling Coordinator, DCPA needs to be told that control has been transferred from the Scheduling Coordinator owning the resource's SCID to the actual controlling entity.

Submission of a Resource Control Agreement Information form will impact the supplier portfolio to which the resource is assigned in the DCPA process if the reported controlling entity is not the Scheduling Coordinator (or an affiliate of the Scheduling Coordinator) registered to the resource's SCID. Therefore, if the resource's CAISO registered Scheduling Coordinator (or an affiliate of the resource's Scheduling Coordinator) will still have control of the resource, or if for any other reason there is ambiguity over who the controlling entity should be for the purpose of the DCPA, the CAISO strongly encourages affected Scheduling Coordinators to notify the CAISO using the provided Resource Control Agreement Information form.

5.3.165.3.15 Execute Agreements

The types of agreements that must be executed vary depending on the type of business the SC Applicant intends to do with the CAISO. The CAISO Customer Services representative helps determine which agreements apply to the SC Applicant, which will include, at a minimum, the SC Agreement (SCA).

Pro forma agreements can be obtained on the CAISO website.

[Tariff - current tariff appendices](#)

5.4 Rejection

Procedures associated with rejection of an application and grounds for rejection of an application are specified in CAISO Tariff Section 4.5.1.1.8. If the application is rejected, the SC Applicant may resubmit its application within six (6) months without paying another application fee. Any appeal by the SC Applicant of a rejection of its application by the CAISO must be submitted within twenty (20) business days following the CAISO's issuance of the notification of the rejection.

5.5 Other Registration and Certification Processes

There are other registration processes that affect SCs as described in the following sections.

5.5.1 Additional SCID Registration

An SC must submit Bids using an identification code specific to that SC. The Scheduling Coordinator ID (SCID) is four characters in length and is determined by the SC Applicant on the Scheduling Coordinator Application Form and approved by the CAISO during the SC certification process. An SC Applicant is granted one SCID with its application fee. There is no fee to request additional SCIDs, but the SC may be assessed a \$1000 per month GMC charge for each SCID; please refer to CAISO Tariff - Appendix F for more information on rates and terms. Contact your CAISO Representative to request additional SCIDs.

5.5.2 AS Certification

An SC representing a Generator that wishes to participate in the CAISO AS markets must ensure that the Generator obtains appropriate certification from the CAISO of the capability of its Generating Unit to participate in the desired AS markets. Additional information can be obtained at:

[Ancillary Services](#)

5.5.3 NERC Registration

SCs that are submitting interchange Bids or Self-Schedules must register the source and sink with NERC. This can be accomplished at:

<https://www.naesbwry.oati.com>

5.5.4 CRR Registration

SCs that are participating in the CRR Allocation or CRR Auction need to register in order to participate. Details on CRR registration are found in the BPM for Candidate CRR Holder Registration.

[Business Practice Manual Library](#)

5.5.5 Demand Response Provider Registration

SCs that represent Demand Response Providers for Proxy Demand Resources will need to ensure that the Demand Response Provider executes a Proxy Demand Resource Agreement and registers the Proxy Demand Resources via the Demand Response system Maintaining SC Status Obligations & Operations

5.5.6 Convergence Bidding Registration

In order to participate in the convergence bidding process, a participant must register as a Convergence Bidding Entity (CBE). As the CAISO requires the use of a certified Scheduling Coordinator (SC) to be eligible to submit bids in the CAISO day-ahead market, each Convergence Bidding Entity will be required to designate a Scheduling Coordinator that will be authorized to execute convergence bidding transactions on its behalf. The designated SC may be an existing SC or the CBE may become a new SC by going through the SC certification process.

5.5.6.1 Convergence Bidding Registration Process

To complete the registration process, each entity must:

- Submit a convergence bidding registration form
- Submit an affiliate form
- Execute a Convergence Bidding Entity Agreement to become a registered convergence bidding entity (CBE) with the CAISO.

If the convergence bidding entity is not a certified Scheduling Coordinator (SC) itself and is being represented by another SC, then the SC representing the CBE would

- Submit a letter acknowledging representation of a convergence bidding entity.

This is an approximately 60-day process. The registration form, SC letter and affiliate form can be found under Convergence Bidding Registration on the “Convergence Bidding” web page:

[Convergence Bidding](#)

5.5.6.2 SCs Representing Convergence Bidding Entities

Pursuant to Section 4.5.2.2 of the CAISO Tariff, each Scheduling Coordinator that is or represents one or more Convergence Bidding Entities will provide the CAISO with a list of the Convergence Bidding Entities that it represents and the SCIDs that the Scheduling Coordinator will use to submit Virtual Bids for each Convergence Bidding Entity, at least eleven (11) business days prior to the Scheduling Coordinator's initial submission of a virtual bid on behalf of any of those Convergence Bidding Entities. This list must satisfy the requirements of Section 4.14.2.3 of the CAISO Tariff. In the event that the Scheduling Coordinator will represent additional Convergence Bidding Entities or modifies any of the SCIDs that the Scheduling Coordinator will use to submit virtual bids on behalf of any Convergence Bidding Entity, the Scheduling Coordinator will provide the CAISO with an updated list of Convergence Bidding Entities and/or SCIDs at least eleven (11) business days prior to submitting a virtual bid involving a Convergence Bidding Entity and/or SCID not already included in the most recent list provided to the CAISO. The CAISO will incorporate the information provided pursuant to these provisions into the CAISO's official list of the Convergence Bidding Entities that Scheduling Coordinators represent and will incorporate the SCIDs that Scheduling Coordinators use to submit virtual bids on behalf of Convergence Bidding Entities into the Master File within eleven (11) business days after the CAISO determines that the information in each list or updated list provided by a Scheduling Coordinator or Convergence Bidding Entity is accurate and complete.

5.5.7 Energy Imbalance Market (EIM)

CAISO has based the EIM on the Real-Time Market design, which was developed in part to comply with FERC Order No. 764, and consists of a 15-minute market and a 5-minute dispatch. Each of these market runs will produce schedules and locational marginal prices for resources. The EIM will also commit short-start generation units in the 15-minute market. Like CAISO's current Real-Time Market, the EIM will enforce a flexible ramping constraint to commit and position resources to meet future load and supply variability and uncertainty

All CAISO EIM Requirements and processes can be found in the BPM for Energy Imbalance Market. Refer to that specific BPM for further details.

5.5.7.1 EIM Entity

In Order to participate in the Energy Imbalance Market an entity (balancing authority) needs to execute an EIM Implementation Agreement pursuant to Section 29 of the CAISO Tariff. The EIM Entity must qualify as or secure representation by no more than one certified EIM Entity Scheduling Coordinator

5.5.7.2 EIM Participating Resource

A resource located in the balancing authority of an EIM Entity is eligible to become an EIM Participating Resource pursuant to Section 29 of the CAISO Tariff. An EIM Participating Resource Scheduling Coordinator must be either an existing Scheduling Coordinator or must meet or have met the certification requirements in Section 4.5.1 for a Scheduling Coordinator and have an executed EIM Participating Resource Scheduling coordinator agreement along with the Meter Service Agreement for SCs.

Welcome to the *Maintaining SC Status Obligations & Operations* section of the *BPM for Scheduling Coordinator Certification & Termination and Convergence Bidding Entity Registration & Termination and Convergence Bidding Registration & Termination*. In this section you will find the following information:

- The ongoing obligations for an SC
- The termination procedure for SC status
- Details on the operations of an SC

5.6 Ongoing Obligations

CAISO Tariff Section 4.5.1.2.1.1, Obligations to Report a Change in Filed Information

Each SC has an ongoing obligation to inform the CAISO of any changes to any of the information that it has submitted to the CAISO as part of the application process. Such changes must be reported to the CAISO within seven (7) business days of the change unless it is security information. Any changes to security information must be updated within three (3) business days. Changes to Master File data must be submitted at least eleven (11) business days prior to the anticipated effective date that this change is to be reflected in Master File.

[SC Changes](#)

5.6.1 Failure to Inform

CAISO Tariff Section 4.5.1.2.2.1, Failure to Promptly Report a Material Change

If an SC fails to inform the CAISO of a material change in the information that it has supplied to the CAISO and the information in question affects the reliability or safety of the CAISO Controlled Grid or the financial security of the CAISO, then the CAISO may suspend or terminate the SC's rights.

If the CAISO intends to terminate an SC's rights, then it must file a notice of termination with FERC, if required by FERC rules, and such termination is only effective upon acceptance of the notice of termination by FERC, if required by FERC rules, or as otherwise permitted by FERC rules.

5.6.2 Training & Testing

SCs are required to maintain continued proficiency and compliance with the rules and regulations concerning participation in the CAISO Markets. New employees are expected to enroll in the CAISO training classes as soon as practical given their other duties. Refresher training courses may be offered occasionally by the CAISO and all SC personnel involved in the CAISO operations are encouraged to participate in such training when it is offered. In addition, the CAISO may require re-testing of SC systems from time to time as conditions merit. Such

testing is developed with the affected SC and is designed to minimize cost and business interruptions.

For various reasons, SCs may become 'inactive' in the CAISO Markets. If these SCs return to activity at some time in the future, they are expected to develop a refresher training program for their affected employees in concert with CAISO training staff or demonstrate proficiency in CAISO operations through the successful completion of the proficiency tests (see Section 5.3.6). SCs need to allow a minimum of thirty (30) days to accommodate required re-activation activities.

5.6.3 CAISO-Initiated Limitation or Suspension of Convergence Bidding Activity

Under certain specified circumstances, the CAISO may take the following actions to limit or suspend convergence bidding in the CAISO Markets as addressed in the Business Practice Manual for Market Operations.

Limit convergence bidding participation by enforcing stricter position limits for SCIDs at one or more locations.

- Limit or suspend the ability of one or more SCIDs to submit convergence bids at one or more locations if the CAISO determines that virtual bidding activities are detrimentally affecting System Reliability or grid operations or are causing unwarranted divergence in the prices and/or Shadow Prices between the day-Ahead Market and the HASP or the Real-Time Market.
- Limit or suspend the convergence bidding market such that no SCIDs can submit convergence bids at certain locations or at any location.

5.6.4 CAISO-Initiated Termination

An SC's SCA may be terminated by the CAISO upon written notice to the SC for any of the following reasons:

- The SC no longer meets the requirements for eligibility and fails to remedy the default condition(s) within five (5) business days after receiving written notice of the problem from the CAISO.
- The SC fails to pay any sum under the CAISO Tariff and fails to remedy the non-payment within five (5) business days after receiving written notice of the non-payment from the CAISO.

- The SC commits any other default under the CAISO Tariff or any of the CAISO BPMs that is not remedied within thirty (30) days after having received written notice from the CAISO.
- The SC does not schedule or bid in the CAISO's markets for twelve (12) consecutive months and fails to meet the testing and training requirements applicable to new SC Applicants within 120 days of receipt of the CAISO's notice of intent to terminate.

5.6.5 SC Initiated Self-Termination

The SC can terminate its SCA by supplying sixty (60) days written notice to the CAISO of its intention to terminate its services as an SC.

Such notice does not take effect until the SC complies with all applicable termination requirements.

5.6.6 Processes and Consequences of Termination

SCA termination means that an SC loses all rights and status to participate in the CAISO Markets and to transact business with the CAISO. Contact your CAISO Representative to initiate this process.

Following termination of an SCA and within thirty (30) days of being satisfied that no sums remain owed by the SC, the CAISO returns or releases any money or credit support provided by the terminated SC. However, termination of an SC's certification does not in any manner relieve the SC from its commitment and obligations to participate in settlement re-runs beyond the termination of the SCA.

Pending acceptance of the termination by FERC, the CAISO suspends the certificate of an SC and the SC is not eligible to submit Bids or Inter-SC Trades to the CAISO.

5.6.7 Notification

CAISO Tariff Section 4.5.4.5, Notification of Termination

CAISO Tariff Section 4.5.4.5.1, Filing of Notice of Termination

Promptly after providing written notice of default to an SC, the CAISO must notify SCs that could be required to represent End-Users or Eligible Customers of the SC that is being terminated. The CAISO also notifies any UDCs that may be involved in the proceedings and posts all applicable information on the CAISO Website.

Termination of an SCA automatically removes an SC's certification.

Any notice of termination must also be filed with FERC, if required by FERC rules. Otherwise, the notice of termination will be effective pursuant to the FERC rules relating to the submittal of the CAISO's Electric Quarterly Report to FERC.

5.6.8 Continuation of Service

CAISO Tariff Section 4.5.6.1, Option for Eligible Customers to Choose a New Scheduling Coordinator

When the CAISO suspends the certification of an SC pending termination, Eligible Customers of the defaulting SC are entitled to select another SC to represent them. The CAISO must post notice of any suspension on the CAISO Website.

5.6.8.1 Interim Service

CAISO Tariff Section 4.5.4.6.2, Interim Service

Until the CAISO is notified by another SC that it now represents an Eligible Customer of the defaulting SC, the Eligible Customer of the defaulting SC receives interim SC service as follows.

The CAISO maintains a list of SCs willing to represent Eligible Customers of a defaulting SC. This list may be differentiated by UDC Service Area. The list is ordered randomly.

Eligible Customers of the defaulting SC must be assigned to all SCs on the list in a non-discriminatory manner and each Eligible Customer must be represented by the assigned SC unless and until it selects another SC.

Unless the CAISO is notified by another SC that it represents an Eligible Customer of a defaulting SC within seven (7) days of the notice of termination being posted, the SC to which that Eligible Customer is assigned may establish a reasonable period for service not to exceed thirty (30) days.

In the event that no SC indicates its willingness to represent Eligible Customers of a defaulting SC, the UDC who has the obligation to serve End-Use Customers of the Eligible Customer must arrange to serve those End-Use Customers that are located within the Service Area of the UDC. However, a UDC is not required to provide or arrange for SC service for wholesale Eligible Customers.

5.7 Operations

CAISO Tariff Section 4.5.4, Operations of a Scheduling Coordinator

CAISO Tariff Section 6.1.1, Full-Time Communications Facility Requirement

CAISO Tariff Section 6.1.4, Information Transfer from CAISO to Scheduling Coordinators

CAISO Tariff Section 6.1.5, Information to be provided by Connected Entities to CAISO

Each SC must operate and maintain a twenty-four hour, seven days per week scheduling center unless it has contracted with a Scheduling Agent for such services. Each SC must provide, or contract for, a communications facility manned twenty-four hours a day, seven days per week that is capable of receiving Dispatch Instructions issued by the CAISO. If it is not possible to communicate with the SC using the primary means of communication, then an alternate means of communication are selected by the CAISO.

Each SC designates a senior member of its staff as a scheduling center manager who is responsible for operational communications with the CAISO and who has sufficient authority to commit and bind the SC.

Each Connected Entity provides the CAISO with the following information:

- A single and an alternative telephone number and a single and an alternative facsimile number by which the CAISO may contact a representative of the Connected Entity twenty-four hours a day in relation to a System Emergency
- The names or titles of the Connected Entity's representatives who may be contacted at such numbers

Each designated representative is a person having appropriate experience, qualifications, authority, responsibility and accountability within the Connected Entity to act as the primary contact for CAISO in the event of a System Emergency. Any changes to this information must be forwarded to CAISO promptly and as far in advance as possible.

Attachment A

SC Applicant Certification Matrix

A. SC Applicant Certification Requirements Matrix

The following table lists the certification requirements that the SC Applicant must complete prior to participating in the CAISO Market. Refer to Section 5.3 for additional information on the certification requirements.

Column Heading Descriptions

Certification Requirement – Lists the certification requirements defined in Section 5.3.

May Be Fulfilled By Scheduling Agent – If the certification requirement can be performed by the Scheduling Agent a “Yes” is listed, otherwise a “No” indicates the SC Applicant must fulfill the certification requirement.

Applies to Business Type – Depending on type of business the SC Applicant plans to perform in the CAISO Market additional SC certifications requirements may apply. Refer to Types of Activities or Representation for additional information.

Estimated Time to Complete – Once the SC Applicant completes a SC certification requirement, this column list the time it normally takes for the CAISO to process and notify the SC Applicant if the certification requirement was completed successfully.

Certification Requirement Prerequisite– Many SC certification requirements can be pursued in parallel with other requirements, this column lists the requirement(s) that needs to be fulfilled prior to pursuing an SC certification requirement.

Exhibit A-1: SC Applicant Certification Requirements Matrix

| Certification Requirement | May Be Fulfilled By Scheduling Agent | Applies to Business Type | Estimated Time to Complete | Requirement Prerequisite |
|---|---|--------------------------|----------------------------------|--|
| Establish Financial Security and meet minimum participation requirements (FERC Order 741) | No | All | 45 days | |
| Establish Network Interface (applicable to ECN Connectivity) | Yes | All | 30 days | |
| User Access Administrator agreement | No | All | 10 B days | |
| Provisioning Application Access | Access must be provisioned by the designated SC Applicant's UAAs, | All | 6 business days | Access requested once effective in the master file |
| Attend Training | Satisfied Prior by Scheduling Agent | All | 2 day workshop offered quarterly | |

| Certification Requirement | May Be Fulfilled By Scheduling Agent | Applies to Business Type | Estimated Time to Complete | Requirement Prerequisite |
|--|---|--|--|--|
| | Certification | | | |
| Complete Market Proficiency Test | Satisfied Prior by Scheduling Agent Certification | All | Last day of 2 day workshop offered quarterly | Attendance |
| Electronic Funds Transfer Test | No | All | 10 Business days | Bank account in the U.S. |
| Submit SC Emergency Plan (only for SC applicants representing physical bids) | No | All, except Inter-SC Trades and convergence bidding | 3 business days | |
| Complete Real Time and Contact Drills (only for SC applicants representing physical bids) | Yes | All, except Inter-SC Trades and convergence bidding | 10 Business days | Established 24 x 7 desk |
| Register Interchange ID | No | Non-dynamic Energy Imports into the CAISO Balancing Authority Area Imports of dynamic Energy and AS into the CAISO Balancing Authority Area | 10 Business days | Submitted once effective in the master file |
| Establish CAISO Automated Dispatch System (ADS) Access | Yes | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability CAISO Balancing Authority Area Load with AS Capability Non-dynamic Energy Imports into the CAISO Balancing Authority Area (as applicable) Imports of dynamic Energy and AS into the CAISO Balancing | 10 Business days | Access requested once effective in the master file |

| Certification Requirement | May Be Fulfilled By Scheduling Agent | Applies to Business Type | Estimated Time to Complete | Requirement Prerequisite |
|--|--------------------------------------|--|----------------------------|--|
| | | Authority Area Proxy Demand Resources with AS capability | | |
| Establish WebOMS | Yes | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability Proxy Demand Resources with AS capability Resources EIM Participating Resources | 6 business days | Access requested once effective in the master file |
| | | | | |
| Establish Access to Settlement Quality Meter Data System | Yes | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Load with AS Capability CAISO Balancing Authority Area Generation with AS Capability CAISO Balancing Authority Area Load Non-CAISO Grid- Connected CAISO Balancing Authority Area Load CAISO Grid- Connected Proxy Demand Resources with AS capability | 6 business days | Access requested once effective in the master file |
| Submit Network Connectivity Security Agreement | No | All | 3 business days | ECN requested |

| Certification Requirement | May Be Fulfilled By Scheduling Agent | Applies to Business Type | Estimated Time to Complete | Requirement Prerequisite |
|---|---|---|--|--|
| (only if ECN being requested) | | | | |
| Submit Acknowledgement Forms (SC Selection letter and SC Acceptance letter) | No | CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability EIM participants | Need forms 10 business days before commencement date | Submitted once effective in the master file |

Attachment B

Scheduling Coordinator Application Form

B. Scheduling Coordinator Application Form

This application is for certification of the applicant as a Scheduling Coordinator (“SC”) by the California Independent System Operator Corporation (“CAISO”) in accordance with the CAISO Tariff. The information provided for this application will be treated as confidential information.

| | | | |
|---|--|---|------------------|
| Section I: Administrative Requirements | | | |
| Applicant's Legal Name <i>Note: This name must be used on all documentation submitted to the CAISO. Use of an inconsistent name may result in the document being returned to you for correction thus delaying the certification process.</i> | | | |
| Scheduling Coordinator ID (SCID) <i>Provide three options for your SCID. The SCID has to start with a letter and must be a total of four digits.(i.e. MCM1) The SCID is a unique identifier used throughout the CAISO Market systems. The SC Applicant is granted one SCID with its application.</i> | | | |
| First Choice: | | Second Choice: | Third Choice: |
| Street Address | | | |
| City, State, Zip Code | | City: | State: Zip Code: |
| State of Incorporation or Partnership (if applicable) | | | |
| Proposed Commencement Date for Service | | | |
| Entity Type <i>(Municipal utility, power marketer, investor owned utility, federal or state entity or other)</i> | | | |
| Does your company plan to use the services of a Scheduling Agent <i>(refer to Section 4 of this BPM for more information)</i> | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| Section II: Scheduling Coordinator Customer Information | | | |
| Tariff Section 4.5.1.1.6.2 | | | |
| A Scheduling Coordinator Applicant must certify that it is duly authorized to represent the Generators and Loads that are its Scheduling Coordinator Customers and must further certify that: | | | |
| (a) represented Generators have entered into Participating Generator Agreements or Qualifying Facility Participating Generator Agreements as provided in Appendices B.2 and B.3, respectively with the CAISO; | | | |
| (b) represented UDCs have entered into UDC Operating Agreements as provided in Appendix B.8 with the CAISO; | | | |
| (c) represented CAISO Metered Entities have entered into Meter Service Agreements for CAISO Metered Entities as provided in Appendix B.6 with the CAISO; | | | |
| (d) none of the Wholesale Customers it will represent are ineligible for wholesale transmission service pursuant to the provisions of the FPA Section 212(h); and | | | |
| (e) each End-Use Customer it will represent is eligible for service as a Direct Access End User pursuant to an established program approved by the California Public Utilities Commission or a Local Regulatory Authority. | | | |
| A Scheduling Coordinator Applicant that seeks to serve as Scheduling Coordinator for one or more Convergence Bidding Entities must certify that it is duly authorized to represent those Convergence Bidding Entities and to submit | | | |

and settle Virtual Bids on their behalf.

Further information included in Attachment C as applicable to indicated selection in this Section II...

**Select the common
business types ****

Scheduling Coordinator for Financial Markets

- ☐ Inter-SC Trades ☐ Convergence Bidding (*complete Section V of appendix C*)

Scheduling Coordinator for Physical Markets

- ☐ CAISO Balancing Authority Area Generating Units without AS capability (*complete Section I of appendix C*)
- ☐ CAISO Balancing Authority Area Generating Units with AS (*complete Section I of appendix C*)
- ☐ CAISO Balancing Authority Area Load not directly connected to the CAISO Controlled Grid (*complete Section II of appendix C*)
- ☐ CAISO Balancing Authority Area Load directly connected to the CAISO Controlled Grid (*complete Section II of appendix C*)
- ☐ CAISO Balancing Authority Area Load with AS Capability (*complete Section II of appendix C*)
- ☐ Non-dynamic Energy imports into the CAISO Balancing Authority Area (*complete Section III of appendix C*)
- ☐ Imports of dynamic Energy and Ancillary Services (AS) into the CAISO Balancing Authority Area (*complete Section III of appendix C*)
- ☐ Proxy Demand Resources Area (*complete Section IV of appendix C*)

Scheduling Coordinator for Energy Imbalance Markets (EIM)

- ☐ EIM Entity (balancing authority)
- ☐ EIM Participating Resource

Important Note: An EIM participating resource scheduling coordinator cannot be an EIM entity scheduling coordinator unless it is a transmission provider or a governmental entity that agrees to comply with the Commission's standards of conduct in 18 C.F.R. § 358. See ISO tariff section 29.4(c).

***Additional Information to be added to application as applicable for the selected business types above.*

SC Certification process contact information:

| Authorized Primary Customer Services Contact <i>(works with CAISO during/after the Scheduling Coordinator certification process)</i> | | | |
|--|-------|--------|-----------|
| Name | | | |
| Title | | | |
| Email Address | | | |
| Desk Phone Number | | | |
| Mobile Phone Number (optional) | | | |
| Fax Number | | | |
| Street Address <i>If different than the one listed under Section I- Administrative Requirements.</i> | | | |
| City, State, Zip Code | City: | State: | Zip Code: |
| Authorized Alternate Customer Services Contact <i>(alternate person that can provide backup responsibilities if the CAISO is unable to contact the primary contact)</i> | | | |
| Name | | | |
| Title | | | |
| Email Address | | | |
| Desk Phone Number | | | |
| Mobile Phone Number (optional) | | | |
| Fax Number | | | |
| Street Address <i>If different than the one listed under Section I- Administrative Requirements.</i> | | | |
| City, State, Zip Code | City: | State: | Zip Code: |

Section VII: Signatory Page

The undersigned hereby represents and confirms that all information submitted herein is true and accurate to the best of his/her knowledge.

The undersigned hereby acknowledges that it is the responsibility of the undersigned to provide the CAISO with all confidential and/or proprietary information that is reasonably needed to determine the SC Applicant's eligibility to become an SC.

The undersigned further hereby acknowledges that: (i) it is the responsibility of the undersigned to inform the CAISO of any change to any of the information submitted in this Scheduling Coordinator Application Form immediately upon learning of any such change; (ii) that this responsibility will continue to apply even after the SC Applicant becomes a certified SC; (iii) CAISO reserves the right to reevaluate the applicant in light of the new information; and that (iv) an SC Applicant's failure to promptly notify the CAISO of a change in information may result in termination of the SC Certification Process or revocation of SC Applicant.

Signatory Block

| | |
|--------------------------------------|-------|
| Company Name: | |
| Authorized Representative Signature: | DATE: |
| Authorized Representative Name: | |
| Authorized Representative Title: | |

Email a signed PDF copy of the SC application to SCRequests@caiso.com and send the \$5,000.00 application fee via wire to:

Bank ABA#: [121000248](#)
 Account #: [4122041783](#)
 Bank Name: WELLS FARGO BANK
 Account Name: CONCENTRATION

Otherwise, send a hardcopy of the applicable applicant forms with the Signatory Page and \$5000.00 applicant fee to:

CAISO Customer Service and Stakeholder Affairs
 ATTN: Scheduling Coordinator Application Processing Office
 250 Outcropping Way
 Folsom, CA 95630

Attachment C

Additional Information

Based on the indicated business type in Section II as a Scheduling Coordinator applicant we are certified to represent our customers as indicated below:

Section I: Additional Information for:

- **CAISO Balancing Authority Area Generating Units without Ancillary Services (AS) capability &**
- **CAISO Balancing Authority Area Generating Units with AS capability**

| # | Question | Answer |
|----|---|--|
| 1 | Are the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets Participating Generator(s)? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | Are the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets certified for the provision of any Ancillary Services? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | Are the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets dispatchable in Real-Time? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 4 | Are any of the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets Participating Intermittent Resources? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5 | Are any of the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets Reliability Must-Run Units? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6 | Do the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets have Resource Adequacy (RA) obligations? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 7 | Do any of the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets qualify as Regulatory Must-Take Generation or Regulatory Must-Run Generation as defined in the CAISO Tariff? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 8 | Does the Generator have a Participating Generator Agreement (PGA) and Meter Service Agreement for CAISO Metered Entities executed with the CAISO? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 9 | Does the Generating Unit(s) have a CAISO Resource ID? If yes, please list: | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 10 | Does the Generating Unit have CAISO-certified revenue metering and is its Meter Data polled by the CAISO's Revenue Meter Data Acquisition and Processing System (RMDAPS)? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 11 | Do you plan to become the SC for the Generating Unit(s) on the day you become certified to perform in the CAISO Market? If no, anticipated date: | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 12 | Does your organization represent or intend to represent a Generator with Station Power Load? | <input type="checkbox"/> Yes <input type="checkbox"/> No |

Section II: Additional Information for:

- CAISO Balancing Authority Area Load not directly connected to the CAISO Controlled Grid
- CAISO Balancing Authority Area Load directly connected to the CAISO Controlled Grid
- CAISO Balancing Authority Area Load with AS capability

| # | Question | Answer |
|-----|--|---|
| 1 | Does your organization intend to represent Load Serving Entities (which includes a Utility Distribution Company, MSS Operator, Energy Service Provider, or governmental entity (which include Federal Power Marketing Authority, state agencies, community choice aggregator (CCA), and municipal utilities) in the CAISO Markets? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | Does your organization intend to represent Participating Load in the CAISO Markets? If yes, please answer the following two questions. | <input type="checkbox"/> Yes <input type="checkbox"/> No. |
| 2.1 | If "yes" to 2, does your organization participate or intend to participate in other demand response programs? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2.2 | If "yes" to 2, will the Participating Load that your organization intends to represent in the CAISO Markets be dispatchable in real-time? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | Does your organization represent or intend to represent a Generator with Station Power Load? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 4 | Does your organization represent or intend to represent any entity with Load directly connected to the CAISO Controlled Grid? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. | Is the load serving entity a wholesale customer of the transmission owner? | <input type="checkbox"/> Yes <input type="checkbox"/> No |

Section III: Additional Information: Imports of dynamic Energy and AS into the CAISO Balancing Authority Area

| # | Question | Answer |
|-------|--|--|
| 1 | Does your organization represent or intend to represent any System Resources for purposes of scheduling imports of Power into the CAISO Balancing Authority Area? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | If "yes" to question 1, are any of the System Resources your organization represents or intends to represent in the CAISO Markets dispatchable in Real-Time (i.e. Dynamic System Resources)? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2.1 | If "yes" to question 2, have the Host Balancing Authority Area and any intermediary Balancing Authority Areas through which the telemetry signals for the Dynamic Schedules for the System Resources your organization represents or intends to represent must be transmitted executed an agreement with the CAISO to facilitate the dynamic scheduling? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2.2 | If "yes" to question 2, are the System Resources your organization represents or intends to represent Dynamic Resource-Specific System Resource(s)? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2.2.1 | If "yes" to question 2.2, have the organizations that own or operate the System Resources your organization represents or intends to represent and the CAISO installed direct telemetry and revenue metering for provision of data regarding the resources directly to the CAISO? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | Are any of the System Resources your organization represents or intends to represent Non-Dynamic Resource-Specific System Resources? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 4 | Are the System Resources your organization represents or intends to represent solely Non-Dynamic System Resources? | <input type="checkbox"/> Yes <input type="checkbox"/> No |

Section IV: Additional Information for: Demand Response Providers and Proxy Demand Resources

| # | Question | Answer |
|-----|--|--|
| 1 | Does your organization represent or intend to represent any Demand Response Providers with Proxy Demand Resources? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | If "yes" to question 1, are the Demand Response Providers and Proxy Demand Resources registered with the CAISO? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2.1 | If "yes" to question 2, please list: | |

Section V: Additional Information for: Convergence Bidding

| # | Question | Answer |
|---|--|--|
| 1 | Does your organization represent or intend to represent any convergence bidding entity | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | If "yes" to question 1, are the convergence bidding entities registered with the California ISO? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | If "yes" to question 2, please list by full legal name: | |

VI: Additional Information for: EIM

| # | Question | Answer |
|---|---|--|
| 1 | Does your organization represent or intend to represent any EIM entity? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | If "yes" to question 1, is the EIM entity registered with the California ISO? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | If "yes" to question 2, please list by full legal name: | |
| 4 | Does your organization represent or intend to represent any EIM Participating Resource? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5 | If "yes" to question 4, is the EIM Participating Resource registered with the California ISO? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6 | If "yes" to question 5, please list by full legal name and resource ID: | |

Attachment D

Letter of Agency

D. Letter Representing Agency Relationship between Scheduling Coordinator Applicant and Scheduling Agent

(Please complete this letter template on SC company letterhead)

[SC Applicant Name] ("Applicant") has applied to become a Scheduling Coordinator in accordance with the terms of the CAISO Tariff and hereby requests that the California Independent System Operator Corporation ("CAISO") consider its application to include a Scheduling Agent in satisfaction of certain Scheduling Coordinator requirements. Accordingly, Applicant hereby represents and warrants the following with respect to its request that the CAISO certify Applicant to be a Scheduling Coordinator:

1. Applicant has a legal relationship between itself and another Scheduling Coordinator, [Scheduling Coordinator Name] (the "Agent").
2. In accordance with the terms of this relationship, Applicant has authorized Agent to serve as a Scheduling Agent for the following Generation resources and/or Demand resources for which Applicant is the Scheduling Coordinator:

[Describe resources]

3. In accordance with the terms of this relationship, Applicant has authorized Agent to perform the following functions as a Scheduling Agent on behalf of Applicant as the Scheduling Coordinator:

[Describe functions]

4. In reliance on the foregoing, CAISO is entitled to issue and respond to instructions to/by Scheduling Agent with regard to the foregoing resources and functions in the same manner as if such instructions were issued to/by Applicant.
5. Applicant will give 60-day written notice to the CAISO identifying the change in its relationship with Agent. Once the Applicant is certified to perform in the CAISO Market and Applicant decides not use an Agent, Applicant understands it may be necessary to satisfy requirements that were fulfilled by Agent during the Scheduling Coordinator certification process.

The CAISO Tariff shall apply to this letter of agency. By signing below, Applicant [Signatory Name] certifies that he/she is authorized to legally bind Applicant with regard to the subject matter of this letter.

Executed, this [date] day of [month], [year].

[Signatory Name]

[Signatory Title]

cc: Scheduling Agent

Attachment E

Resource Control Agreement Information Examples

Example 1: Resource controlled by an entity that is not affiliated with the Scheduling Coordinator registered to the resource's SCID

Let resource Labrador1 be owned and controlled by Labrador LLC, an affiliate of Dog LLC. Labrador LLC is not registered as a CAISO Scheduling Coordinator. Dog LLC is registered as a CAISO Scheduling Coordinator, but Dog LLC is not the Scheduling Coordinator registered to Labrador1's SCID. Instead, Labrador LLC has an agreement with Fish LLC whereby Fish LLC will serve as Labrador1's Scheduling Coordinator. The resource Labrador1 will use the SCID of FIS1, an SCID registered to the Scheduling Coordinator Fish LLC. Even though Fish LLC is the Scheduling Coordinator, Labrador LLC and Fish LLC have an agreement whereby Labrador LLC will give Fish LLC instructions on how to bid the resource Labrador1 into the CAISO markets.

Dog LLC and Fish LLC must submit Resource Control Agreement Information forms. Dog LLC is a registered Scheduling Coordinator affiliated with an entity (Labrador LLC) that has a Resource Control Agreement with a different entity (Fish LLC). On both Dog LLC and Fish LLC's forms, the 'Controlling Entity' is Labrador LLC the dates the Agreement is effective between the two entities. For the DCPA, Labrador1 will be included in the supplier portfolio of Dog LLC and its affiliates. Labrador1 will not be included in the supplier portfolio of Fish LLC.

Submitted by Fish LLC

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|------------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador 1 | Labrador LLC | FIS1 | Fish LLC – FIS1 | Labrador LLC | mm/dd/yy | mm/dd/yy |
| | | | | | | |

Submitted by Dog LLC

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|------------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador 1 | Labrador LLC | FIS1 | Fish LLC – FIS1 | Labrador LLC | mm/dd/yy | mm/dd/yy |
| | | | | | | |

Example 2: Resource control transferred. Resource uses an SCID assigned to the new controlling entity (or Affiliate of new controlling entity)

Labrador1 is still owned by Labrador LLC, an affiliate of Dog LLC, and Dog LLC is a registered CAISO SC. Let Trout LLC be an affiliate of Fish LLC. Fish LLC is still a registered CAISO SC, but Trout LLC is not. Let Labrador LLC enter into an agreement with Trout LLC from Jan 1 through Dec 31 whereby Labrador LLC receives a fixed payment from Trout LLC to run Labrador1, but Trout LLC controls the bidding and scheduling of Labrador1, and Trout LLC receives Labrador1 market revenues. Let Trout LLC hire its Affiliate Fish LLC to be the Scheduling Coordinator, so that Labrador1 will use the SCID of FIS1.

As registered CAISO Scheduling Coordinators affiliated with entities involved in a Resource Control Agreement, both Dog LLC and Fish LLC need to submit Resource Control Agreement Information forms. On the forms, they will each list Trout LLC as the Controlling Entity and Labrador LLC as the RCA Counterparty Entity. The Start Date and End Date are Jan 1 and Dec 31 respectively.

Submitted by Fish LLC

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|------------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador 1 | Labrador LLC | FIS1 | Labrador LLC | Trout LLC | 01/01/12 | 12/31/12 |
| | | | | | | |

Submitted by Dog LLC

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|------------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador 1 | Labrador LLC | FIS1 | Labrador LLC | Trout LLC | 01/01/12 | 12/31/12 |
| | | | | | | |

Example 3a: Resource control transferred. Resource uses an SCID assigned to the non-controlling entity (or Affiliate of the non-controlling entity)

Assume the same situation as Example 2, except that in the agreement between Labrador LLC and Trout LLC, it is specified that Dog LLC will serve as the Scheduling Coordinator for the duration of the agreement. Labrador1 will use the SCID of DOG1, an SCID registered to Dog LLC.

When filling out the Resource Control Agreement Information form for this example, the important information for Fish LLC and Dog LLC to include is that Trout LLC is the Controlling Entity, either Dog LLC or Labrador LLC is the RCA Counterparty Entity, and the Start and End Dates accurately reflect the agreement. Technically, each of the Scheduling Coordinator's forms could have 2 lines: one with Labrador LLC as the RCA Counterparty Entity and Trout LLC as the Controlling_Entity (to reflect the control transfer from Labrador LLC to Trout LLC), and another line with Dog LLC as the RCA Counterparty Entity and Trout LLC as the Controlling_Entity (to reflect the fact that Trout LLC controls the Labrador1 resource even though Dog LLC is the Scheduling Coordinator).

Submitted by Fish LLC

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|------------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador 1 | Labrador LLC | DOG1 | Labrador LLC | Trout LLC | 01/01/12 | 12/31/12 |
| Labrador 1 | Labrador LLC | DOG1 | Dog LLC | Trout LLC | 01/01/12 | 12/31/12 |

Submitted by Dog LLC

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|------------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador 1 | Labrador LLC | DOG1 | Labrador LLC | Trout LLC | 01/01/12 | 12/31/12 |
| Labrador 1 | Labrador LLC | DOG1 | Dog LLC | Trout LLC | 01/01/12 | 12/31/12 |

Example 3b: Resource control transferred. Resource uses an SCID assigned to the non-controlling entity (or Affiliate of the non-controlling entity) for only part of the transfer period

Assume the same situation as Example 2. In the original agreement between Trout LLC and Labrador LLC, a Scheduling Coordinator is not specified. As in Example 2, assume Trout LLC uses its affiliate Fish LLC as the Scheduling Coordinator from Jan 1 through Jun 30. So, from Jan 1 through Jun 30 Labrador's SCID is FIS1. Sometime in May Trout LLC enters into an agreement with Dog LLC to make Dog LLC the Scheduling Coordinator of Labrador effective July 1 through Sep 30. So, from July 1 through Sep 30, Labrador would use the SCID of DOG1

In this case, the Scheduling Coordinators Dog LLC and Fish LLC would each have to submit two Resource Control Agreement Information forms. The first form submitted by each prior to Jan 1 would be identical to Example 2: They would each list Trout LLC as the Controlling Entity, Labrador LLC as the RCA Counterparty Entity, and the Start and End Dates as Jan 1 and Dec 31, respectively. Prior to July 1, both Dog LLC and Fish LLC would have to submit another Resource Control Agreement Information form to reflect the Labrador resource being controlled by one entity (Trout LLC), while using an SCID registered in the CAISO under a Scheduling Coordinator that is not an Affiliate (Dog LLC). Therefore, both Dog LLC and Fish LLC would submit forms with Trout LLC as the Controlling Entity, Dog LLC as the RCA Counterparty Entity, and July 1 and Sep 30 as the Start and End Dates.

Submitted by Fish LLC at least 11 business days prior to Jan 1

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|------------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador 1 | Labrador LLC | FIS1 | Labrador LLC | Trout LLC | 01/01/12 | 12/31/12 |
| | | | | | | |

Submitted by Dog LLC at least 11 business days to Jan 1

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|------------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador 1 | Labrador LLC | FIS1 | Labrador LLC | Trout LLC | 01/01/12 | 12/31/12 |
| | | | | | | |

Submitted by Fish LLC at least 11 business days prior to Jul 1

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|-----------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador1 | Labrador LLC | DOG1 | Dog LLC | Trout LLC | 07/01/12 | 09/30/12 |
| | | | | | | |

Submitted by Dog LLC at least 11 business days to Jul 1

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|--------|-----------|-----------------|--|-----------------------------|-------------------|-----------------|
| | | | | | | |

| | | | | | | |
|-----------|--------------|------|---------|-----------|----------|----------|
| Labrador1 | Labrador LLC | DOG1 | Dog LLC | Trout LLC | 07/01/12 | 09/30/12 |
| | | | | | | |

Example 3c: Resource owned by one entity, controlled by an unaffiliated entity, and using a third unaffiliated entity as the Scheduling Coordinator

Assume the same agreements have occurred as in Example 3b. Sometime in September, Trout LLC enters into an agreement with Bird LLC to be the Scheduling Coordinator for Labrador1 from Oct 1 through Nov 30. Bird LLC is a registered CAISO SC and it is not an Affiliate of any of the other LLCs. From Oct 1 through Nov 30 Labrador1 will use the SCID of BIR1, an SCID registered to Bird LLC.

Prior to Oct 1, only Fish LLC and Bird LLC have to submit a Resource Control Agreement Information form reflecting the RCA between Trout LLC and Bird LLC. Even though Dog LLC is an Affiliate of the resource owner, this Resource Control Agreement does not involve Dog LLC. Bird LLC must submit an RCA Information form as a Scheduling Coordinator for a resource that is controlled by an entity that is not its Affiliate. Fish LLC must submit an RCA Information form as an SC that is an Affiliate of an entity that controls a resource that uses an SCID registered to an unaffiliated Scheduling Coordinator. Therefore, both Bird LLC and Fish LLC submit RCA Information forms with Trout LLC as the Controlling Entity, Bird LLC as the RCA Counterparty Entity, and Start and End Dates of Oct 1 and Nov 30.

Submitted by Bird LLC at least 11 business days prior to Oct 1

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|-----------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador1 | Labrador LLC | BIR1 | Bird LLC | Trout LLC | 10/01/12 | 11/30/12 |
| | | | | | | |

Submitted by Fish LLC at least 11 business days to Oct 1

| Res ID | Res Owner | Scheduling SCID | Counterparty to Resource Control Agreement | Resource Controlling Entity | Start date of RCA | End date of RCA |
|-----------|--------------|-----------------|--|-----------------------------|-------------------|-----------------|
| Labrador1 | Labrador LLC | BIR1 | Bird LLC | Trout LLC | 10/01/12 | 11/30/12 |
| | | | | | | |