

Business Practice Manual for Scheduling Coordinator Certification & Termination

Version 23

Last Revised: August 9, 2010

BPM for Scheduling Coordinator Certification & Termination

Approval History

Approval Date:	8/17/07
Effective Date:	8/20/07
BPM Owner:	Don Fuller
BPM Owner's Title:	Director, Customer Services & Industry Affairs

Revision History

	Version	Date	Description	
	<u>3</u>	<u>08-09-2010</u>	Update for Proxy Demand Resource PRR #168	Formatted: Font: Bold
Γ	2	03-20-2009	Clean up for MRTU go live 4/1/09	
	1	08-20-2007	Effective Version to implement FERC ruling of 8/17/07	

TABLE OF CONTENTS

1.	Intro	ductior	۱	5
	1.1	Purpos	se of California ISO Business Practice Manuals	5
	1.2	Purpos	se of this Business Practice Manual	6
	1.3	Refere	nces	7
2.	Entit	ies that	t Require SC Representation	8
3.	Туре	s of Ac	tivities or Representation	11
4.	Sche	duling	Agent Designation	15
5.	SC C	ertifica	tion Process	16
	5.1	Applica	ation Timeline	16
		5.1.1	Application Sunset Provision	17
	5.2	Submit	t Scheduling Coordinator Application Form	18
	5.3	Certific	cation Requirements	19
		5.3.1	Establish Financial Security with CAISO	19
		5.3.2	Establish Network Interface	20
		5.3.3	Point of Contact	21
		5.3.4	Request Application Access	21
		5.3.5	Attend Training	23
		5.3.6	Complete Market Proficiency Test	
		5.3.7	Test Fed-Wire	23
		5.3.8	Complete Real-Time and Contact Drills	24
		5.3.9	Submit SC Emergency Plan	24
		5.3.10	Register Intertie Resource IDs	24
		5.3.11	Establish CAISO Automated Dispatch System (ADS) Access	25
		5.3.12	Establish SLIC System Access	26
		5.3.13	Establish Access to Settlement Quality Meter Data System	26
		5.3.14	Submit Acknowledgement Forms	27
		5.3.15	Execute Agreements	27
	5.4	Rejecti	ion	28
	5.5	Other I	Registration and Certification Processes	28
		5.5.1	Additional SCID Registration	28
		5.5.2	AS Certification	28
		5.5.3	NERC Registration	28

5.7.1CAISO Initiated305.7.2SC Initiated315.7.3Processes and Consequences of Termination315.7.4Notification315.7.5Continuation of Service325.8Operations33		5.7		Training & Testing	
5.7.2SC Initiated		0.7			
5.7.4 Notification .31 5.7.5 Continuation of Service .32 5.8 Operations .33					
5.7.5 Continuation of Service 32 5.8 Operations 33			5.7.3	Processes and Consequences of Termination	31
5.8 Operations			5.7.4	Notification	31
			5.7.5	Continuation of Service	32
A. SC Applicant Certification Requirements Matrix1		5.8	Opera	ations	
	Α.	SC /	Applica	ant Certification Requirements Matrix	1

1. Introduction

Welcome to the CAISO *BPM for Scheduling Coordinator Certification & 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 ISO 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. Exhibit 1-1 lists CAISO BPMs.

Title		
BPM for Market Operations		
BPM for Market Instruments		
BPM for Settlements & Billing		
BPM for Scheduling Coordinator Certification & Termination		
BPM for Congestion Revenue Rights		
BPM for Candidate CRR Holder Registration		
BPM for Managing Full Network Model		
BPM for Rules of Conduct Administration		
BPM for Outage Management		
BPM for Metering		
BPM for Reliability Requirements		
BPM for Credit Management		
BPM for Compliance Monitoring		
BPM for Definitions & Acronyms		
BPM for BPM Change Management		
BPM for Transmission Planning Process		

Exhibit 1-1: CAISO BPMs

Version 32

1.2 Purpose of this Business Practice Manual

The *BPM for Scheduling Coordinator Certification & 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. Agreements that must be filed during the process of becoming a certified SC are cited and referenced.

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 status.
- General information of use to an SC.

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
- CAISO Information Security Services: CAISO Information Security Requirements for the Energy Communication Network (ECN)
- CAISO Corporate Policy Information Security: Scheduling Coordinators Connectivity Security Requirements

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 or a MSS Operator

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

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. Since 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 BPM for Scheduling Coordinator Certification & Termination

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 Load-Proxy Demand Resources for a DRP, an SC must
 have an executed Meter Service Agreement for SCs (MSA SC) with the CAISO.
- 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

Formatted: Bulleted + Level: 1 + Aligned at: 0.25" + Indent at: 0.5"

Formatted: Bulleted + Level: 1 + Aligned at: 0.75" + Indent at: 1"

Formatted: Indent: Left: 1"

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.

In the event that an entity with a contractual relationship to 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 CAISOME) 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 CAISOME (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 CAISOME with the CAISO, except that the applicable terms of the MSA CAISOME 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 CAISOME, 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.

BPM for Scheduling Coordinator Certification & Termination

Business Type	Executed Agreement (agreement examples listed on the CAISO Website)	Additional Certification Requirements [Not described in detail in this BPM. Refer to the CAISO Website for more information.]
Inter SC Trades	Scheduling Coordinator Agreement (SCA)	
CAISO Balancing Authority Area Generation without AS Capability	 Scheduling Coordinator Agreement (SCA) Participant Generation Agreement (PGA) or Qualifying Facility (QF) PGA 	 PIR Certification (as applicable)
	Meter Service Agreement for Scheduling Coordinators (MSA SC) (as applicable)	
	Meter Service Agreement for CAISO Metered Entities (MSA CAISOME)	
	Reliability Must Run (RMR) Contract (as applicable)	
CAISO Balancing Authority Area Generation with AS Capability	Scheduling Coordinator Agreement (SCA)	PIR Certification (as applicable)
	Participant Generation Agreement (PGA) or Qualifying Facility (QF) PGA	AS Certification
	Meter Service Agreement for Scheduling Coordinators (MSA SC) (as applicable)	
	Meter Service Agreement for CAISO Metered Entities (MSA CAISOME)	
	Reliability Must Run (RMR) Contract (as applicable)	
CAISO Balancing Authority Area Load Non-CAISO Grid-Connected	Scheduling Coordinator Agreement (SCA)	
	Meter Service Agreement for Scheduling Coordinators (MSA SC)	
	Utility Distribution Company (UDC) Operating Agreement (as applicable)	
	Metered Subsystem (MSS) Agreement (as applicable)	
CAISO Balancing Authority Area Load CAISO Grid-Connected	Scheduling Coordinator Agreement (SCA)	+
	Metered Service Agreement for CAISO Metered Entities (MSA CAISOME)	

Exhibit 3 -1: Entity Contract Obligation by Business Type

Version 32

BPM for Scheduling Coordinator Certification & Termination

Business Type	Executed Agreement (agreement examples listed on the CAISO Website)	Additional Certification Requirements [Not described in detail in this BPM. Refer to the CAISO Website for more information.]	
	Meter Service Agreement for Scheduling Coordinators (MSA SC) (as applicable)		
	Metered Subsystem (MSS) Agreement (as applicable)		
	Utility Distribution Company (UDC) Operating Agreement (as applicable)		
CAISO Balancing Authority Area Load with AS Capability	Scheduling Coordinator Agreement (SCA)	AS Certification	-
	 Participating Load Agreement (PLA) 		
	Meter Service Agreement for CAISO Metered Entities (MSA CAISOME)		
Non-dynamic Energy Imports into the CAISO Balancing Authority Area	Scheduling Coordinator Agreement (SCA)		-
Imports of dynamic Energy and AS into the CAISO Balancing Authority Area	Scheduling Coordinator Agreement (SCA)	Dynamic Scheduling Capability Certification	
	Dynamic Scheduling Agreement for SCs	AS Certification (as applicable)	
	ICAOA/DSHCAOA/other equivalent agreement		
Proxy Demand Resources	Scheduling Coordinator Agreement (SCA)	Demand Response Provider registration	Formatted: List Paragraph
	Meter Service Agreement for Scheduling Coordinators (MSA SC)	<u>AS certification (as</u> <u>applicable)</u>	
	Proxy Demand Resource <u>Agreement (PDRA)</u>		

Version 32

Page 14

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 SQMDS 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 C.

5. SC Certification Process

Welcome to the SC Certification Process section of the *BPM for Scheduling Coordinator Certification & 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

Version <u>3</u>2

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 in which 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.

BPM for Scheduling Coordinator Certification & Termination

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 an electronic copy of the application form to scapplication@caiso.com; and
- 2) Send a hardcopy of the application form, including the \$5000.00 non-refundable application fee to:

CAISO External Affairs ATTN: Scheduling Coordinator Application Processing Office 151 Blue Ravine Road Folsom, CA 95630

Please make check or money order (no other forms of payment are accepted) payable to: The California Independent System Operator Corporation

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

If there are any questions regarding the application or certification process, please contact the CAISO at <u>scapplication@caiso.com</u>.

Field Code Changed

Version <u>3</u>2

Page 18

5.3 Certification Requirements

Once an SC Applicant's application is accepted, a CAISO Representative contacts the SC Applicant to begin the certification process. This section outlines the certification requirements that an 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

Pursuant to the CAISO Tariff, the CAISO requires reasonable credit review procedures to be conducted in accordance with standard commercial practices for the purpose of determining the ability of SC Applicants to meet their financial obligations.

Once the Scheduling Coordinator Application Form is accepted, the SC Applicant must begin establishing Financial Security. An SC Applicant can estimate its initial Financial Security requirement by completing the spreadsheet template found on the CAISO Website at http://www.caiso.com/docs/09003a6080/36/8b/09003a6080368bec.xls.

An SC Applicant can satisfy its initial Financial Security requirement by applying for unsecured credit or posting an approved form of Financial Security. The CAISO's Credit Policy & Procedures Guide 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.

The CAISO recommends that an SC Applicant understand 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 compete this process is approximately ten (10) Business Days. Additional information can be obtained at:

> Credit Policy & Procedures Guide and Financial Security Forms

Version 32

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 Connected Entity Service Guide Version and CAISO Information Security Requirements for the 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

Version <u>3</u>2

Last Revised: March 20, 2009August 9, 2010

5.3.3 Point of Contact

At a minimum, a primary and secondary point of contact 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 point of contact is not available. The establishment of points of contact must be made by an individual at the external entity that has an appropriate level of authority to designate points of contact. For SCs, points of contact must be identified in the initial SC certification process established with CAISO's Customer Services department. All other companies will need to identify their points of contact using the "CAISO Access Point of Contact Establishment and Change Form." Any business changes that impact the scope, areas of responsibility, or individuals assigned as points of contact must be communicated to CAISO by one of the points of contact or another authorized company representative.

5.3.35.3.4 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 SC Applicant must submit an Application Access Request Form (AARF). This must be submitted by the designated point of contact. The AARF captures the applications to which a person(s) designated by the SC Applicant needs access. Once the form is received, the CAISO determines how many digital certificates are required. The CAISO creates the digital certificate and issues the certificate to the person(s) listed on the AARF. Each person or system has an individually assigned login account provided through the digital certificate. The digital certificates are emailed to the designated person along with installation instructions. User IDs and passwords required to access CAISO Market applications are communicated separately to the SC Applicant once the certification requirements are fulfilled. Access to CAISO Market applications will occur after the SCID for the SC Applicant is added to 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 fifteen (15) Business Days following the CAISO's receipt of the AARF to provide for CAISO issuance of the necessary digital certificates and passwords.

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

Formatted: Font: 13 pt, Bold, No underline, Font color: Auto

Formatted: Font: 11 pt, Not Bold, No underline, Font color: Auto

Formatted: No underline, Font color: Auto, Not Highlight

Formatted: Font: 11 pt, Not Bold, No underline, Font color: Auto

Version 32

Last Revised: March 20, 2009August 9, 2010

BPM for Scheduling Coordinator Certification & Termination

CAISO Market Applications	Business Type
SIBR (Scheduling Infrastructure Business Rules)	All
SaMC (Settlements and Market Clearing) aka BAPI (Business Associate Portal Interface)	All
Note: BAPI is the reporting interface that delivers SaMC output (invoices and settlements).	
CMRI (CAISO Market Results Interface)	All
CRR (Congestion Revenue Rights)	Refer to the BPM for CRR Registration
DS (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
SLIC (Scheduling and Logging system for the CAISO of California)	CAISO Balancing Authority Area Generation without AS Capability
	CAISO Balancing Authority Area Generation with AS Capability
	Proxy Demand Resources
SDS (Settlement Dispute System)	All
SQMDS (Settlement Quality Meter Data System) (previously called OMAR)	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
RMR (discussion board)	CAISO Balancing Authority Area Generation without AS Capability (as

Version 32

Last Revised: March 20, 2009August 9, 2010

BPM for Scheduling Coordinator Certification & Termination

	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

The estimated time to for an SC Applicant to receive digital certificates is approximately fifteen (15) Business Days. Form can be obtained at:

Application Access Request Form

5.3.45.3.5 Attend Training

The SC Applicant is required to complete training, which consists of:

- Detailed Settlements
- CAISO SC Certification Workshop

The CAISO continues to evaluate and determine the required training curriculum. Entities that are considering application should access the training schedule so that they can obtain necessary training before they intend to operate. The CAISO Representative will provide information on registration and training logistics.

5.3.55.3.6 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 SC Applicant notifies the CAISO when ready to perform the test. The CAISO Representative will ensure the appropriate information is available.

5.3.65.3.7 Test Fed-Wire

This requirement ensures that an SC Applicant can submit payments to/and receive payment from CAISO. The SC Applicant is required to test its Fed-Wire. Fed-Wire is a computerized

high-speed communication system linking the banks within the Federal Reserve System. The network enables transfers to be conducted at high speed for inter-bank dealings and customer transfers. The SC Applicant notifies the CAISO when ready to perform the test. The CAISO Representative will ensure the appropriate information is available.

The estimated time to set up Fed-Wire transfers is approximately ten (10) Business Days.

5.3.75.3.8 Complete Real-Time and Contact Drills

All SC Applicants, except applicants becoming certified only for Inter-SC Trades, 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.

5.3.85.3.9 Submit SC Emergency Plan

The SC Applicant is required to provide an up-to-date emergency procedure to the CAISO. 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.

5.3.95.3.10 Register Intertie Resource IDs

Note: This requirement applies only to SC Applicants representing Non-Dynamic System Resources for Energy imports into the CAISO Balancing Authority Area and imports of Dynamic Schedules of Energy and AS into the CAISO Balancing Authority Area from Dynamic System Resources.

SC Applicants are required to submit an Intertie resource data template (RDT) which sets forth the Intertie Resource IDs of the SC Applicant. The Intertie RDT allows SC Applicants to determine their Intertie Resource IDs based on the CAISO naming convention. The SC will

BPM for Scheduling Coordinator Certification & Termination

select the appropriate Intertie Resource IDs when creating Bids and Self-Schedules. The CAISO Representative will provide the Intertie RDT to the SC Applicant.

5.3.105.3.11 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, or 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.

The estimated time to complete this process is approximately ten (10) Business Days. Additional information can be obtained at:

ADS Guidelines

Version 32

BPM for Scheduling Coordinator Certification & Termination

5.3.115.3.12 Establish SLIC System 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 Scheduling and Logging system for the CAISO of California (SLIC).

The estimated time to acquire access is approximately ten (10) Business Days.

5.3.11.15.3.12.1 Attend SLIC 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 SLIC, SC Applicants representing Generators, <u>Participating Load and/or Demand Response Resources</u> are encouraged to attend SLIC training. This training is held at the SC Applicant's facility, so SLIC access must be installed prior to the training.

The estimated time training is approximately six hours. Additional information can be obtained at:

SLIC Information

5.3.125.3.13 Establish Access to Settlement Quality Meter Data System

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 Settlement Quality Meter Data System (SQMDS) is a system allowing for the submittal and viewing of Settlement Quality Meter Data. SQMDS is utilized by:

- Scheduling Coordinators of SC Metered Entities for submittal of Settlement Quality Meter Data 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

Formatted: Font: 11 pt, Not Bold, No underline, Font color: Auto

Formatted: Font: 11 pt, Not Bold, No underline, Font color: Auto

BPM for Scheduling Coordinator Certification & Termination

SQMDS 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 SQMDS system by requesting a secured digital certificate.

The estimated time to complete this task is approximately ten (10) Business Days. Additional information can be obtained at:

SQMDS Information

5.3.135.3.14 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.

Form letter templates can be obtained at:

Form Letter Templates

5.3.145.3.15 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 at:

Pro forma Agreements

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 \$500 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 Certification Testing Information Refer to the G-213 Management of Ancillary Services Certification Testing heading

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:

http://www.tsin.com/

Version 32

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.

5.5.5 <u>Demand Response Provider Registration</u>

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

Welcome to the *Maintaining SC Status Obligations & Operations* section of the *BPM for Scheduling Coordinator Certification & 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.

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.

5.7 Termination

CAISO Tariff Section 4.5.4.4, Termination of a Scheduling Coordinator Agreement

5.7.1 CAISO Initiated

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.

Version <u>3</u>2

Formatted: No page break before

Formatted: Font: 11 pt, Not Bold, No underline, Font color: Auto, Highlight

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.

5.7.2 SC Initiated

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.

5.7.3 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.

5.7.4 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.

5.7.5 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.

5.7.5.1 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 nondiscriminatory 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 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 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.

5.8 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.

BPM for Scheduling Coordinator Application & Responsibilities

Attachment A

SC APPLICANT CERTIFICATION MATRIX

A. SC Applicant Certification Requirements Matrix

The following table lists the certification requirements that an 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.

Certification Requirement	May Be Fulfilled By Scheduling Agent	Applies to Business Type	Estimated Time to Complete	Certification Requirement Prerequisite
Establish Financial Security	No	All	30 days	
Establish Network Interface	Yes	All	30 days	
Request Application Access	Form must be sent to CAISO by SC Applicant, not the Scheduling Agent	All	15 Business Days	
Attend Training	Satisfied by Prior Scheduling Agent Certification	All	base on curriculum offered	
Complete Market Proficiency Test	Satisfied by Prior Scheduling Agent Certification	All	TBD	Attend Training
Test Fed-Wire	No	All	10 Business Days	

Exhibit A-1: SC Applicant Certification Requirements Matrix

Version 32

BPM for Scheduling Coordinator Certification & Termination

Certification Requirement	May Be Fulfilled By Scheduling Agent	Applies to Business Type	Estimated Time to Complete	Certification Requirement Prerequisite
Complete Real Time and Contact Drills	Yes	All, except Inter-SC Trades	10 Business Days	
Submit SC Emergency Plan	No	All	3 Business Days	
Register Interchange ID	TBD	Non-dynamic Energy Imports into the CAISO Balancing Authority Area Imports of dynamic Energy and AS into the CAISO Balancing Authority Area	TBD	
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 Authority Area <u>Proxy Demand Resources with AS</u> <u>capability</u>	10 Business Days	
Establish SLIC System Access	Yes	CAISO Balancing Authority Area Generation without AS Capability CAISO Balancing Authority Area Generation with AS Capability Proxy Demand	10 Business Days	

Version 32

BPM for Scheduling Coordinator Certification & Termination

Certification Requirement	May Be Fulfilled By Scheduling Agent	Applies to Business Type	Estimated Time to Complete	Certification Requirement Prerequisite
		Resources with AS capability Resources		
		CAISO Balancing Authority Area Generation without AS Capability		
Attend SLIC Training	Satisfied by Prior Scheduling Agent Certification	CAISO Balancing Authority Area Generation with AS Capability	1 Day	Establish SLIC System Access
		Proxy Demand Resources with AS capability		
		CAISO Balancing Authority Area Generation without AS Capability		
		CAISO Balancing Authority Area Load with AS Capability		
Establish Access to Settlement Quality Meter	Yes	CAISO Balancing Authority Area Generation with AS Capability	10 Business	
Data System		CAISO Balancing Authority Area Load Non-CAISO Grid- Connected	Days	
		CAISO Balancing Authority Area Load CAISO Grid- Connected		
		Proxy Demand Resources with AS capability		
Submit Network Connectivity Security Agreement	No	All	3 Business Days	
Submit Acknowledgement Forms	No	CAISO Balancing Authority Area Generation without AS Capability	Need forms 10 Business Days before commencement	
		CAISO Balancing Authority Area Generation with AS	date	

Version 32

Page A-3

BPM for Scheduling Coordinator Certification & Termination

Certification Requirement	May Be Fulfilled By Scheduling Agent	Applies to Business Type	Estimated Time to Complete	Certification Requirement Prerequisite
		Capability		

BPM for Scheduling Coordinator Certification & Termination

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: Admin	istrative Requirements				
Applicant 's Legal Na Note: This name must submitted to the CAIS may result in the docu					
Scheduling Coordinator ID (SCID) Provide three options for your SCID. The SCID has to start with a letter and must be four digits. The SCID is a unique identifier used throughout the CAISO Market systems. The SC Applicant is granted one SCID with its application.		First Choice:	Sec	ond Choice:	Third Choice:
Street Address					
City, State, Zip Code		City:		State:	Zip Code:
State of Incorporatio	n or Partnership (if applicable)				
Proposed Commence	ement Date for Service				
Entity Type (Municipal utility, power marketer, investor owned utility, federal or state entity or other)					
	plan to use the services of a efer to Section 4 of this BPM for	Yes No			
Section II: Sched	luling Coordinator Custom	er Information			
Select the common business types	Inter-SC Trades CAISO Balancing Authority Area is Section IV of this application)	a Generating Units withou	t AS	capability (complete a	additional information
	CAISO Balancing Authority Area Section IV of this application)	a Generating Units with AS capability (complete additional information is			
	CAISO Balancing Authority Area additional information is Section V		ted	to the CAISO Controlle	ed Grid <i>(complete</i>
	a Load directly connected to the CAISO Controlled Grid (complete of this application)				
	CAISO Balancing Authority Area Load with AS Capability (complete additional information is Section this application)				mation is Section V of
Non-dynamic Energy imports into the CAISO Balancing Authority Area (complete additional informat Section VI of this application)				dditional information in	
	Imports of dynamic Energy and (complete additional information in			e CAISO Balancing A	uthority Area
	Proxy Demand Resources (com	plete additional information	on in	Section VII of this app	<u>olication)</u>

Version 32

Section III: Contact Information

Authorized Primary Customer Services Contact (works	with CAISO during/after	the SC certification pr	ocess)
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State: Zip	Code:
Authorized Alternate Customer Services Contact (alter unable to contact the primary contact)	nate person that can pro	vide backup responsib	ilities if the CAISO is
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:
Authorized Primary Invoicing Contact (person responsi	ble for ensuring Fed Wire	e payment is setup cor	rectly)
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:

Version 32

BPM for Scheduling Coordinator Certification & Termination

Authorized Alternate Invoicing Contact (alternate perso contact the primary contact)	on that can provide backu	ıp responsibilities if the C	AISO is unable to
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:
Authorized Primary Financial Security Contact (primar, meet)	y person that works with	CAISO to ensure Financ	ial Security are being
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:
Authorized Alternate Financial Security Contact (prima meet)	ary person that works with	n CAISO to ensure Finan	cial Security are being
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:

Version 32

BPM for Scheduling Coordinator Certification & Termination

Authorized Primary Settlements Contact (prima	ry person that works with CAISC) to resolve Settlements i	issues)
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:
Alternate Settlement Contact (alternate person primary contact)	that can provide backup respon	sibilities if the CAISO is u	unable to contact the
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:
Primary Dispute Contact (primary person that w	vorks with CAISO to resolve Sett	lements dispute issues)	
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:

Version 32

Alternate Dispute Contact (alternate person that primary contact)	t can provide backup responsibi	lities if the CAISO is una	ble to contact the
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:
Primary Information Security Contact (submits	application access requests & a	approves digital certificate	e renewals)
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:
Alternate Information Security Contact (submi	ts application access requests &	approves digital certifica	te renewals)
Name			
Title			
Email Address			
Desk Phone Number			
Mobile Phone Number (optional)			
Fax Number			
Street Address If different than the one listed under Section I- Administrative Requirements.			
City, State, Zip Code	City:	State:	Zip Code:

Version 32

Authorized Primary Network Interface Contact (ensures network interfaces to CAISO Market systems is setup and functionin properly)				
Name				
Title				
Email Address				
Desk Phone Number				
Mobile Phone Number (optional)				
Fax Number				
Street Address If different than the one listed under Section I- Administrative Requirements.				
City, State, Zip Code	City:	State:	Zip Code:	
Alternate Authorized Network Interface Conta unable to contact the primary contact)	ct (alternate person that can	provide backup responsil	bilities if the CAISO is	
Name				
Title				
Email Address				
Desk Phone Number				
Mobile Phone Number (optional)				
Fax Number				
Street Address If different than the one listed under Section I- Administrative Requirements.				
City, State, Zip Code	City:	State:	Zip Code:	

Version 32

Section IV: 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)?	🗌 Yes 🗌 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?	🗌 Yes 🗌 No
3	Are the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets dispatchable in Real-Time?	🗌 Yes 🗌 No
4	Are any of the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets Participating Intermittent Resources?	🗌 Yes 🗌 No
5	Are any of the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets Reliability Must-Run Units?	🗌 Yes 🗌 No
6	Do the Generating Unit(s) your organization represents or intends to represent in the CAISO Markets have Resource Adequacy (RA) obligations?	🗌 Yes 🗌 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?	🗌 Yes 🗌 No
8	Does the Generator have a Participating Generator Agreement (PGA) and Meter Service Agreement for CAISO Metered Entities executed with the CAISO?	🗌 Yes 🗌 No
9	Does the Generating Unit(s) have a CAISO Resource ID? If yes, please list:	🗌 Yes 🗌 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)?	🗌 Yes 🗌 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:	🗌 Yes 🗌 No
12	Does your organization represent or intend to represent a Generator with Station Power Load?	🗌 Yes 🗌 No

Version 32

Section V: 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 ٠

#	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?	🗌 Yes 🗌 No
2	Does your organization intend to represent Participating Load in the CAISO Markets? If yes, please answer the following two questions.	Yes No.
2.1	If "yes" to 2, does your organization participate or intend to participate in other demand response programs?	🗌 Yes 🗌 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?	🗌 Yes 🗌 No
3	Does your organization represent or intend to represent a Generator with Station Power Load?	Yes No
4	Does your organization represent or intend to represent any entity with Load directly connected to the CAISO Controlled Grid?	🗌 Yes 🗌 No

Section VI: 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?	🗌 Yes 🗌 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)?	Yes 🗌 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?	Yes 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)?	🗌 Yes 🗌 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?	Yes 🗌 No
3	Are any of the System Resources your organization represents or intends to represent Non- Dynamic Resource-Specific System Resources?	🗌 Yes 🗌 No
4	Are the System Resources your organization represents or intends to represent solely Non- Dynamic System Resources?	🗌 Yes 🗌 No

Section VII: 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 <u>Proxy Demand rResources?</u>	🗌 Yes 🗌 No

Version 32

Last Revised: March 20, 2009August 9, 2010

BPM for Scheduling Coordinator Certification & Termination

I	2	If "yes" to question 1, are the <u>Demand Response Providers and Proxy D</u> emand Resources registered with the CAISO?	🗌 Yes 🗌 No
	2.1	If "yes" to question 2, please list:	

Version 32

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:			
Authorized Representative Name:			
Authorized Representative Title:			
Notarization			
State of}			
SS			
County of}			
[SEAL]			
Sworn and subscribed			
before me this day of			
,20			
Notary's Signature:			

Send a hardcopy of the applicable applicant forms with the Signatory Page letter and \$5000.00 applicant fee to:

CAISO External Affairs ATTN: Scheduling Coordinator Application Processing Office 151 Blue Ravine Road Folsom, CA 95630

Version 32

BPM for Scheduling Coordinator Certification & Termination

Attachment C

LETTER OF AGENCY

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

[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 herby 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 maybe 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

Version 32