



California ISO

EIM Track 2 Overview – Agreements

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Track 2 Overview

This document is to provide entities who are joining the Energy Imbalance Market (EIM) a guide to have an open conversation with the California Independent System Operator (ISO) about the summary of the processes, deliverables, and timing for the various EIM legal agreements. This document will assist in determining all the requirements that must be met in order to execute the appropriate EIM agreements.

1. Energy Imbalance Market

The energy imbalance market is an extension of ISO's real-time market. As the only real-time energy market in the Western U.S., advanced ISO market systems automatically balance supply and demand for electricity every fifteen minutes and dispatching the least-cost resources every five minutes. This service is available to other grids operating in the West as a way to share reserves and integrate renewable resources across a larger geographic region providing more reliably and efficiently.

For entities that have signed an EIM implementation agreement, the purpose of this document is to provide the specific steps and appropriate links to obtain all the applicable agreements to be completed and executed in order to participate in the energy imbalance market. Any references made to the EIM Business Practice Manual (BPM) and ISO tariff refer to the current version of these published documents.

Reference Documents:

- [Business Practice Manual \(BPM\) library](#)
- [CAISO Tariff](#)

The addition of a new balancing area for the EIM will typically involve the agreements listed below. The schedule for completion of these agreements will be developed during the initial project planning phases. It is recommended that the Implementation Agreement be executed 12-18 months prior to initial participation, in order to begin the process for completing and executing the agreements below:

1. EIM Entity Agreement (EIMEA) - Tariff Appendix B.17. Go Live minus 12 months
2. EIM Entity Scheduling Coordinator Agreement (EIMESCA) - Tariff Appendix B.17. Go Live minus 10 months
 - Including a Meter Service Agreement for Scheduling Coordinators (MSASC) Tariff Appendix B.7
3. EIM Participating Resource Agreement (EIMPRA) - Tariff Appendix B.19. Go Live minus 8 months
 - With optional Meter Service Agreement for ISO Metered Entities (MSAISOME) Tariff Appendix B.6
4. EIM Participating Resource Scheduling Coordinator Agreements (EIMPRSCA) - Tariff Appendix B.20. Go Live minus 10 months
 - Including a Meter Service Agreement for Scheduling Coordinators (MSASC) Tariff Appendix B.7

To review the tariff appendices for sample pro-forma samples of the above agreements, please click [HERE](#).

A customized Agreement Checklist will be created and provided to the EIM Entity to plan and track submissions, execution dates for each agreement, interim activities for your records and used for readiness criteria evidence. Meetings will be coordinated and scheduled by the Project Management Office to review your checklist and requirements. The Track 2 meetings will also

be used to true up any discrepancies on the checklist and review and clarify questions between the ISO and the EIM entity.

2. Determination of Scheduling Coordinator (SC) Certification Requirements

Below are a series of questions and answers for a variety of items which will assist in determining what additional requirements may be needed for the specific EIM SC agreements and for the set up in the ISO systems. This information will be covered during Track 2 meeting(s) and assist in gathering information needed.

1. Does the EIM entity have a current ISO Scheduling Coordinator Agreement (SCA) in place?

If a Scheduling Coordinator Agreement (SCA) is already in place for the merchant side of the EIM entity, it will be evaluated what other requirements may be needed to complete the remaining EIM Participating Resource Scheduling Coordinator (EIMPRSCA) agreement requirements. The transmission side (balancing authority or BA) will qualify as an ISO certified SC under the SCA in place and the transmission side will also be evaluated for additional requirements that may be needed to complete the remaining EIM Entity SC (EIMSCA) agreement. Typically, the EIM Entity SC is associated with the BA function.

Please review the provision set forth in tariff Section 29.4 and Section 3 of the EIM BPM for determination of SC certification requirements:

Tariff section 29.4.c.3.b Roles and Responsibilities: “[An EIM Entity SC] may not also be an EIM Participating Resources Scheduling Coordinator or a Scheduling Coordinator for a Participating Generator, Participating Load or Demand Response Provider, unless the EIM Entity Scheduling Coordinator is a transmission provider subject to the standards of conduct set forth in 18 C.F.R § 358.” (as of September 9, 2020. Any publishing updates after this date take precedence.)

Section 3 from the EIM BPM:

EIM Entity Scheduling Coordinator: The EIM Entity Scheduling Coordinator is the entity through which the EIM Entity participates in the Real-Time Market. In order to prevent the inappropriate sharing of information regarding transmission and generation, an EIM Entity Scheduling Coordinator cannot be a scheduling coordinator for a supply resource unless it is a transmission provider subject to the Commission’s standards of conduct set forth in 18 C.F.R. § 358. (As of August 12, 2021. Any publishing updates after this date take precedence.)

EIM Participating Resource Scheduling Coordinator: The EIM Participating Resource Scheduling Coordinator is the entity through which the EIM Participating Resource participates in the Real-Time Market. To prevent the inappropriate sharing of information regarding transmission and generation, an EIM Participating Resource Scheduling Coordinator cannot be an EIM Entity Scheduling Coordinator unless it is a transmission provider subject to the Commission’s standards of conduct set forth in 18 C.F.R. § 358. (As of August 12, 2021. Any publishing updates after this date take precedence.)

The requirements for both EIM Entity SC and EIM PR SC will be based on discussions between the ISO legal counsel and EIM entity legal counsel. If the applying EIM company does not have an SCA in place then both EIM Entity SC and EIM PR SC will have to me all

the SC certification requirements and not leverage any requirements that have been met as having an existing SC agreement. A list of requirements for both EIM Entity SC and EIM PR SC will be customized based on criteria and agreement status at time of application.

If there is an ISO SCA in place, then no application fees required. If no existing ISO SCA is in place, then each EIM SC will have to pay for its own application fee.

2. Does the EIM Entity meet the SCA exception?

If No: the EIM Entity SC (transmission side) must complete all SC certification process requirements which can take a minimum of 120 days. Please refer to the [Scheduling Coordinator Certification and Termination BPM](#) for requirements.

If Yes: then the EIM Entity SC will have a modified list of requirements during the certification process. The EIM Entity SC will also need to address the following questions:

- a. Will the EIM Entity SC have its own 24 x 7 desk separate from the merchant side? If so, the Real Time Communication test will be performed.
- b. Will the EIM Entity SC have its own bank account separate from the merchant side? If so, a banking test will be performed.

3. Agreements and Requirements

This section provides detailed information and requirements in order to have an EIM agreement issued for execution. Requirements are determined during the application process provided in Determination of Scheduling Coordinator (SC) Certification Requirements.

3.1 EIM Entity Agreement (EIMEA)

Submit the [Information Request Sheet for EIM Entity Agreement](#)

Submit to: RegulatoryContracts@caiso.com

Target Completion – Go live minus 12 month

3.2 EIM Entity Scheduling Coordinator (EIM Entity SC)

The below requirements are for the Transmission Side (BA) of the EIM Entity and should be sent to SCRequests@caiso.com.

Target Completion – Go live minus 10 months

3.2.1 EIM Entity SC will work the ISO to determine the SCID naming options

In addition to the SCID there will be various other IDs that need to be set up for the EIM Entity SC and the EIM PR SC. The ISO will work with the EIM Entity to have these IDs set up in the MAP Stage environment for testing and market simulation, Stage for parallel operations and ready for production (Go Live).

3.2.2 Submit the EIM Entity SC application with the EIM Entity (BA) box checked per example below

[Scheduling Coordinator Application Form](#)

- designated SCID on page 1 of the application
- Appendix B of the BPM has the application

	<p>Scheduling Coordinator for Energy Imbalance Markets (EIM)</p> <p><input checked="" type="checkbox"/> EIM Entity (balancing authority)</p> <p><input type="checkbox"/> EIM Participating Resource</p> <p>Important Note: An EIM participating resource scheduling coordinator cannot be an EIM entity scheduling coordinator unless it is a transmission provider subject to the Commission's standards of conduct in 18 C.F.R. § 358. See ISO tariff section 29.4(c).</p>
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3.2.3 Submit the Information Request Sheet for EIMESCA

[EIM Entity SC Agreement Information Request Sheet](#)

- Fill out legal company name
- Name at the bottom is who will sign the agreement. Must be an officer of the company with signatory authority

3.3 Scheduling Coordinators

After all the above requirements have been met by the EIM Entity SC, agreements are issued for execution. The following additional requirements are based on the answers to questions in Section 3.2. *Please note: the following requirements need to be met no later than 30 days prior to parallel operations.*

3.3.1 Submit the updated Affiliate Form

[Affiliate / RCA Disclosure Form](#)

3.3.2 Submit the Electronic Funds Transfer (EFT) form

Please review the ISO EFT procedure. It will outline how to fill out the EFT form as well as types of banking and testing requirements. This form is required even when using the same banking information that may already be set up with the ISO.

[ISO EFT Procedure](#)

[ISO Payment Selection EFT Form](#)

3.3.3 Submit an Emergency Plan

The Emergency plan will be required if the merchant and transmission side have different 24/7 real time desk phone numbers. If the number is the same for merchant and transmission as well as already established with the ISO, this is not required.

[Emergency Plan](#)

3.3.4 Perform Real Time and contract Drill Test

If it is determined that a real time and contract drill test is required, a test will be performed of the phone number. The real time test is a series of 5 calls from the ISO real time desk to the 24 hour number provided in the submitted Emergency Plan at any time or any day over a 7-10 period.

3.3.5 Meter Service Agreement for SCs Information Request Sheet (MSASC)

[Meter Service Agreement for SC Info Request sheet](#)

After all the above requirements have been met by the EIM Entity SC, agreements are issued for execution.

3.4 EIM Participating Resource Scheduling Coordinator (EIMPRSC)

This is also known as the merchant side of an EIM entity. If an EIM entity has already been certified with the ISO prior to applying to participate in EIM, several of the SC certification requirements for the ISO SCA may not be required. All of the following submittals should be sent to SCRequests@caiso.com

Target Completion – Go live minus 10 months

3.4.1 Request an additional SCID (Optional)

Optional - A separate SCID for the EIM participating resource SC is not required, but it is recommended to have a dedicated SCID, due to the EIM Entity SC will have visibility to the resource data templates for all resources associated with the specified SCID. The additional SCID procedure outlines the steps needed

Additional SCID Procedure.

<http://www.caiso.com/Documents/ExistingSchedulingCoordinatorRequestsAdditionalSCID-Procedure.pdf>

Additional SCID:

<http://www.caiso.com/Documents/ExistingSchedulingCoordinatorRequestsAdditionalSCID-LetterTemplate.doc>

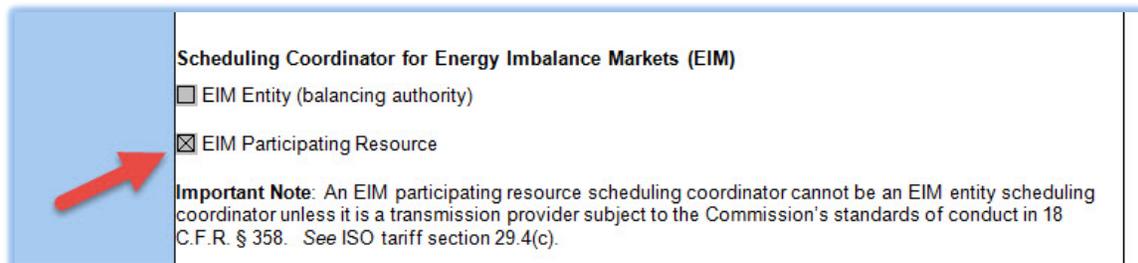
3.4.2 Submit Application

An application will need to be submitted for the EIM PR SC with the EIM Participating Resource box checked per example below.

[Scheduling Coordinator Application Form](#)

- designated SCID on page 1 of the application
- Appendix B of the BPM has the application

[Scheduling Coordinator Application Form](#)



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 subject to the Commission's standards of conduct in 18 C.F.R. § 358. See ISO tariff section 29.4(c).

3.4.3 Submit the Information Request Sheet for EIMPRSCA
[EIMPRSCA Information Request Sheet](#)

- Fill out legal company name
- Name at the bottom is who will sign the agreement. Must be an officer of the company with signatory authority

3.4.4 Submit Meter Service Agreement for Scheduling Coordinators - only if no current MSASC in place.

[Meter Service Agreement for SCs Information Request Sheet](#)

Fill out the word doc for submission and return.

After all the above requirements have been met by the EIM PR SC, agreements are issued for execution. Please note: the following requirements need to be met no later than 30 days prior to parallel operations.

3.5 EIM Participating Resource Agreement (EIMPRA)

The participating resource needs to communicate and apply to be a resource with the EIM entity. The EIM entity will set the requirements for the participating resource outside of what happens with the ISO agreements. The below outlines what is required for participating resources after the EIM entity agrees that the resources meets the EIM entity requirements.

All of the following submittals should be sent to: SCRequests@caiso.com

Target Completion – Go live minus 10 months

3.5.1 EIM Entity Notification for Participating Resource(s)

The EIM entity notifies the ISO that the resource(s) have met the entities requirements and requests confirmation from the ISO that the resource(s) have also met ISO requirements. Below is a sample of the wording that can be used:

This is official notification to the EIM Market Operator that the [EIM ENTITY LEGAL NAME] EIM Entity has verified that the resources listed below meet all [EIM ENTITY LEGAL NAME] EIM Entity requirements to participate in the Energy Imbalance Market. Please confirm that these resources have met all requirements of the EIM Market Operator to become participants at which time the [EIM Entity LEGAL NAME] will officially certify them as [EIM ENTITY LEGAL NAME] EIM Participating Resources.

Resource Name	Resource ID
Resource_Name_1	ResID_Unit_1

add more rows as applicable

3.5.2 Submit EIM Participating Resource Agreement Information Request sheet (EIMPRA)

The participating resource will work with the EIM entity to submit documentation.

[EIM Participating Resource Agreement Information Request Sheet](#)

- Fill out legal company name
- Name at the bottom is who will sign the agreement. Must be an officer of the company with signatory authority from the merchant side.

3.5.3 Submit the Schedule 1

The Schedule 1 will list all participating resources being registered with the EIM entity. Instructions for how to fill out the Schedule 1 are on the instructions tab of the form as well as a sample to illustrate a completed form. The schedule 1 characteristics and resource ID need to match the GRDT submitted by the EIM PR SC for the resource(s).

[EIM Participating Resource Agreement - Schedule 1](#)



Note: After all the requirements have been met by the resource for the EIM entity and the ISO, agreements are issued.

3.5.4 Submit the SC Acceptance Letter

The new SC acceptance letter assigns a specific SC to EIM Participating resources. This shows the agreement between the resource and the SC to schedule on the resource's behalf.

[New SC Acceptance Letter](#)

3.5.5 Submit the Resource Owner SC Selection letter

The Resource Owner Selection letter assigns a specific SC to EIM Participating resources. This shows the agreement between the resource and the SC to schedule on the resource's behalf and must match the New SC acceptance letter submitted

[Resource Owner SC Selection Letter](#)

Send questions to: SCRequests@caiso.com.

3.5.6 Submit the generator resource data template (GRDT).

The GRDT is submitted at the same time as the New SC Acceptance letter. This form tells the ISO information about the generating resource and how to set up the resource in ISO systems.

[GRDT](#)

4. Agreement Deliverables and Timing

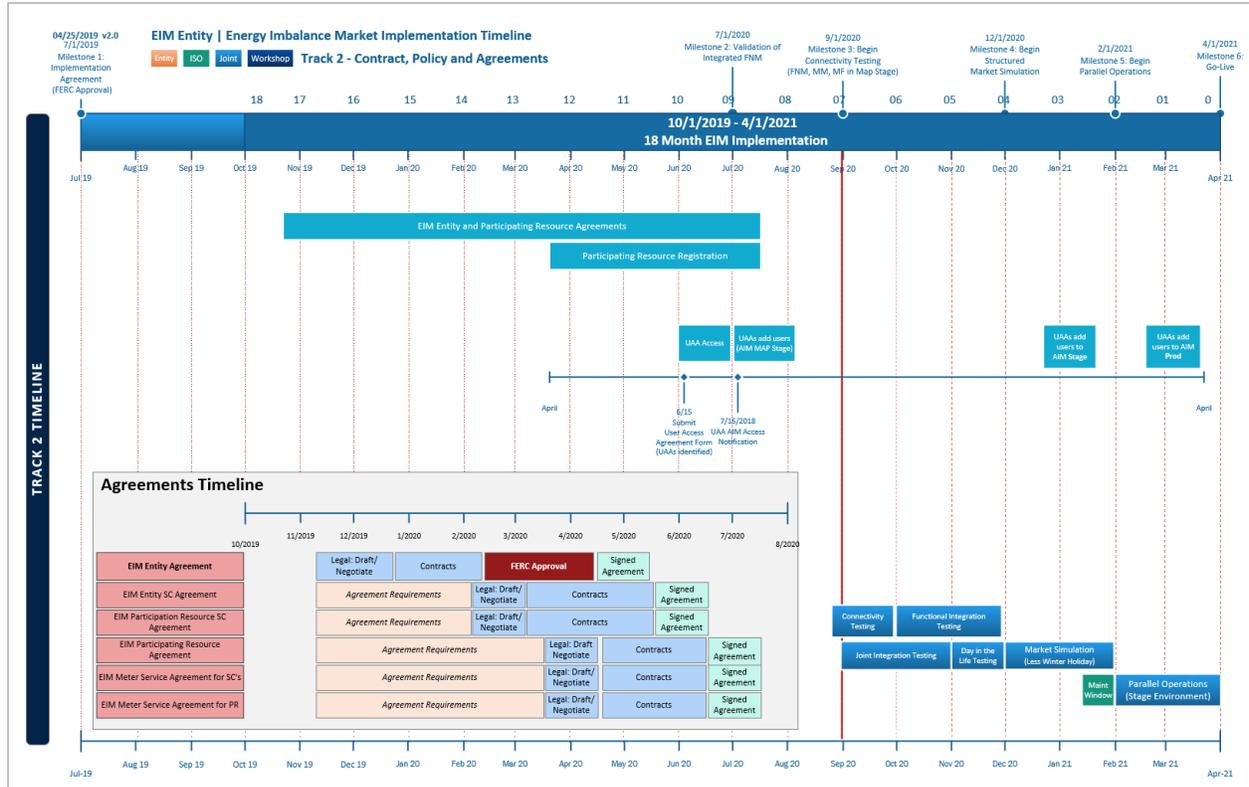
The ISO will develop a checklist to assist new EIM entities with the agreements required for EIM implementations. The Agreements Checklist will be stored and updated on the ISO/Entity SharePoint secured site. If you need access to the secure site, please email the ISO project manager informing them of the access request.

The checklist is broken out into color coordinated sections to help outline what is needed for the transmission side, merchant side, and resource owner side; as well as note what tasks ISO will perform throughout the process.

EIM Entity
Transmission Side
Merchant Side
Resource Owner
ISO

During the Track 2 meetings, the EIM entity will provide information, questions, as well as true up any questions between Track 2 document submissions and the Track 2 checklist updates. On the checklist, the ISO will also outline dates to keep the EIM entity on track for their implementation date.

5. Sample EIM Timeline



6. Things to Consider

1. Begin reviewing the different roles for each side of the entity, the transmission side, and merchant side.
2. Begin determining how the roles are to be met.
3. Review the pro forma agreements in advance.
 - EIM Entity Agreement: <http://www.caiso.com/Documents/AppendixB17-EIMEntityAgreement-asof-Sep9-2020.pdf>
 - EIM Entity SC Agreement: http://www.caiso.com/Documents/AppendixB18_EIMEntitySchedulingCoordinatorAgreement_Asof_Jul01_2014.pdf
 - EIM PR Agreement: <http://www.caiso.com/Documents/AppendixB19-EIMParticipatingResourceAgreement-asof-Sep9-2020.pdf>
 - EIM PRSC Agreement: http://www.caiso.com/Documents/AppendixB20_EIMParticipatingResource_SchedulingCoordinatorAgreement_Asof_Jul01_2014.pdf
4. Have your team start viewing the EIM CBTs.
 - <https://www.westerneim.com/Pages/Resources.aspx>

7. Sample Track 2 Checklist

Please note: Dates are made up for this sample. Dates are defined during the Track 2 calls and will be updated with more specific dates as it gets closer to document submission to keep the EIM entity on track for implementation. See Next Page.

Avangrid - EIM Implementation | Track 2 - Agreements Checklist

Legend | Task Owner: **EIM Entity** **Transmission Side** **Merchant Side** **Resource Owner** **ISO**
 Target Deployment Date: April 5, 2023 **Connectivity Testing Starts: 09/01/2022**



Send all items to: SCRequests@caiso.com

Task Name	Responsible	Timeline	Target Date	Completion Date	Status	Comments	Links
Financial Minimum Participation Validation (FERC Order 741)	EIM Entity		Q1 2022		Not Started	Contact Christina Billing 916-351-2204 cbilling@caiso.com	
Risk Policies and procedures submitted and approved	EIM Entity		Q1 2022		Not Started	Contact Christina Billing 916-351-2204 cbilling@caiso.com	
Officer Certification Form submitted and approved	EIM Entity		Q1 2022		Not Started	Contact Christina Billing 916-351-2204 cbilling@caiso.com	Office Certification Form
Energy Communications Network (ECN) Requested or Waived	EIM Entity		2/1/2022		Not Started	Email to waive or fill out form to establish an ECN	Connectivity Requirements
Network Connectivity Security Requirements and Agreement	Transmission Side		2/1/2022		Not Started		Link to Form
Submit EIM Entity SC Agreement Info Request Form	Transmission Side		11/1/2021		Not Started		Link to Info Request Form
W-9 Form	Transmission Side		2/1/2022		Not Started		SC Certification Workshop
Energy Communications Network (ECN) Requested or Waived	EIM Entity		12/15/2021		Not Started	Email to waive or fill out form to establish an ECN	Connectivity Requirements
Network Connectivity Security Requirements and Agreement	EIM Entity		12/15/2021		Not Started		Link to Form
Submit EIM Participating Resource SC Agreement Info Request Form	Merchant Side		11/1/2021		Not Started		PR SC Agreement Info Request Form
W-9 Form	Merchant Side		2/1/2022		Not Started		
SC Training Registration submitted	Merchant Side		Q1 2022	Optional	Not Started		SC Certification Workshop Registration Form
SC Training completed and Market Proficiency Test (optional)	Merchant Side		Q1 2022	Optional	Not Started		
Submit Affiliate Form	Merchant Side		11/1/2021		Not Started		Link to Affiliate Form
5 EIM Participating Resource Registration - Initial set up		T-8 M	8/1/22				
EIM Entity notification email of approved PR (initial submission for first FNM build) -For Map Stage	EIM Entity		7/30/2022		Not Started	The FNM will trigger these dates. After we have the FNM, then we can put dates in here.	
EIM PR Agreement Info Request form, with schedule 1 (Initial submission for first FNM build) - MAP Stage	Resource Owner		7/30/2022		Not Started		Link to Info Request Form
Schedule 1	Resource Owner		7/30/2022		Not Started		Link to Schedule 1
Develop/Execute EIM PR Agreement	ISO		8/1/2022		Not Started		
Deliverable: EIM Participating Resource Agreement Executed	ISO	T-8 M	8/15/2022		Not Started		
RDT submittal (initial submission for first FNM build)	Resource Owner		4/1/2022		Not Started	Just Participating Resources	
EIM PR SC Acceptance Letter (with RDT) - EIM Participating Resource SC (initial submission for first FNM build)	Merchant Side		4/1/2022		Not Started		Link to Template
EIM PR SC Selection Letter - EIM Resource owner (initial submission for first FNM build)	Resource Owner		4/1/2022		Not Started		Link to Template
ISO Notification Email of Accepted /Approved PR	ISO		4/1/2022		Not Started	Production	
MF updated for testing, BAA ID updated in Map Stage / Testing, DITL, Market Simulation	ISO				Not Started	BAA ID cannot be updated until the Full network model has been provided to the ISO - should be prior to market sim	
Updates for Market SIM and/or Parallel Ops EIM Participation Resource Schedule 1 Revisions		target dates	Parallel Ops Stage	Production			
EIM Entity Notification Email of Approved PR (updates)	EIM Entity		12/1/2022 - Stage 2/1/2023 - Production		Not Started		