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<b>WEIM Track 6 Overview – Training and Operations Readiness</b>		<b>Date Created:</b>	<b>10/14/2024</b>




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# WEIM Track 6 Overview - Training and Operations Readiness

Document Owner: **Carder, Heidi**


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## REVISION HISTORY


VERSION NO.	DATE	REVISED BY	DESCRIPTION
1.0	7/6/2017	Nancy Strouse	Updated per Joanne Alai's instructions.
1.1	8/02/2018	Craig Williams; Nancy Strouse	Added a section for the Train-the-Trainer session and made minor corrections.
1.2	4/26/2019	Heidi Carder	Updated to align with changes identified through lessons learned and evolution of the EIM training program.
1.3	5/21/2019	Ayman Fattah	Removed references to EIM Portal.
2.0	12/18/2019	Heidi Carder; Rashele Wiltzius; Nancy Strouse	Updated to reflect train-the-trainer training module. Added Train-the-Trainer Orientation and Designated Trainer Identification deliverables. Removed EIM Entity Training Plan (EIM Entity) deliverable. Updated format of in-person training courses. Added acronym expansions; updated copyright update; provided minor formatting, clarifications, and grammatical corrections.
3.0		Rashele Wiltzius	Removed section 3.2 Operations Management Overview Visits. Updated to reflect removal of training at EIM entity location. Removed section 3.4 In-Person training. Updated to reflect EIM train-the-trainer will happen virtually. Updated date of EIM train-the-trainer from T-9 to T-12. Added EIM Entity staff training to deliverable date. Updated timeline image with corrected dates.
3.1	06/28/2021	Rodney Jackson	Corrected grammatical errors for clarification. Updated section 7.2 to include communications deliverables. Added appendices to include EIM CBT Course Map and Objectives, EIM Designated Trainer Roles and Responsibilities, and EIM Track 6 Onboarding Readiness Requirements.
3.2	10/14/2024	Heidi Carder	Updated document to reflect change from "EIM" to "WEIM", and "Energy Imbalance Market" to "Western Energy Imbalance Market" where applicable. Updated train-the-trainer language to better align with the four training sessions that will be provided by the ISO in section 3.2

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			and section 7. Replaced course map with updated version.
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## 1 Purpose

This document is to provide entities joining the Western Energy Imbalance Market (WEIM) with an overview of the training and operational readiness deliverables and timing that are part of WEIM Track 6.

## 2 Track 6 Overview

Track 6 provides a series of training events throughout the WEIM market timeline. The events include computer based training modules for various roles and responsibilities, train-the-trainer courses which include hands-on scenario training with application tools, and optional participation in workshops proposed in other tracks. The CAISO will work in partnership with the WEIM entity project leads and their designated trainers to prepare the designated trainers to facilitate needed WEIM training to entity staff. Finally, training support is provided for Parallel Operations and go-live initiation as needed.

## 3 WEIM Training Plan

The CAISO provides introductory and role-defined training for new WEIM entities through several training interactions.


### 3.1 Computer Based Training (CBT) Courses (T-18 and T-9)

A series of computer-based training courses (CBTs) are made available to WEIM entities through an online link. WEIM entities are provisioned access with a set number of users within the Learning Management System. The assigned number of users will be determined between each WEIM entity and the CAISO training staff. WEIM entities are also provided a CBT course map describing which CBTs are considered Core Curriculum (100 level courses) and which courses are recommended for various job functions (200 and 300 level courses). The CAISO training staff maintains a list of authorized users and provides periodic status reports, but it is the responsibility of each WEIM entity to notify the CAISO of any changes to the authorized user list.

The individuals responsible for delivering, developing, or making decisions about training within the WEIM entity are encouraged to learn as much as possible via the CBTs early in the readiness process. It is also recommended that WEIM entities create and manage a plan to have end users complete the applicable CBTs closer to the actual use of the tools and information, depending on their roles and responsibilities.

### 3.2 Train-the-Trainer Sessions (T-12)

A vital part of preparing for the operations training is preparing the WEIM entity's training staff, other key influential users, and change managers on foundational WEIM concepts and objectives. This training is focused on providing key paradigms for how the WEIM market operates, its key elements, and how the individual operational functions of the WEIM Balancing Authority Area (BAA) fit into it.

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The WEIM entity assigns designated trainers who will be responsible for training their own staff through the onboarding process. These designated trainers should be identified early and must be able to attend a train-the-trainer session, and can commit to facilitating internal training sessions for their staff responsible for carrying out WEIM roles. Designated trainers can be any individuals that the WEIM entity identifies within their organization, but should be available to participate in and facilitate all in-scope scheduled training sessions. The ISO Customer Readiness staff will provide guidance to WEIM entity to determine the appropriate audience for each course.

Identified WEIM staff participating in the train-the-trainer session will receive practice and training materials via the trainer toolkit sufficient to incorporate into their own in-house training programs.

Some aspects of WEIM participation require more detailed study than CBTs can provide. Accordingly, the WEIM train-the-trainer contains the following subjects which are considered a baseline from which WEIM entities can develop their internal programs.


The entity will determine whom from their organization should take which course based on their expected roles within the WEIM construct. The CAISO recommends that members of different departments attend the overview session together to better understand how departments relate within WEIM and what types of internal communication procedures they should consider creating.

- WEIM Overview Training** - This course provides an overview of the main aspects of WEIM, from bid-to-bill. WEIM Entity trainers will be able to take the provided material and scale it as needed for applicable audiences within the organization, including management, support functions, operations, traders, settlements, etc. Successful completion satisfies foundational level 100 course requirements.

**Audience** – This course is intended for anyone in the entity who may be impacted by, or who has a direct impact on, WEIM operations, including operators, marketers/traders, settlements analysts, technical support, management, trainers/change managers, etc.

- WEIM Resource Management Training** – This course provides a deeper operational dive of marketer actions in WEIM, outage management within the market, and the tools that will be used. A SME from Market Support will be on hand periodically to answer questions and provide context as necessary. WEIM Entity Markets/Operations/Outage Management trainers will be able to take the provided material and scale it as needed for applicable Market/Operations/Outage Management staff, and direct Operations support as necessary. Successful completion satisfies foundational and application levels 100 and 200 course requirements

**Audience** - This course is intended for entity personnel tasked with carrying out WEIM responsibilities related to bidding, outage management, resource coordination and modeling, scheduling, etc.

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- WEIM Operations Training** - This course provides a deeper operational dive of operations and the tools that will be used. A SME from the RTMO will be on hand periodically to answer questions and provide context as necessary. WEIM Entity Operations trainers will be able to take the provided material and scale it as needed for applicable Operations staff, and direct Operations support as necessary. Successful completion satisfies level 100-through-300 course requirements.
- Audience** – This course is intended for entity real-time market operators carrying out WEIM responsibilities and those providing direct support to operators (such as EMS, outage coordinators, etc.). NOT recommended for traders/marketers and settlements personnel.
- WEIM Settlements Training** - This course provides a deeper operational dive of settlements terminology, documentation and concepts. A SME from Settlements will be on hand periodically to answer questions and provide context as necessary. WEIM Entity Settlements trainers will be able to take the provided material and scale it as needed for applicable Settlements staff. Successful completion satisfies level 100 and 200 course requirements.
- Audience** - Settlements analysts and settlements management. Operators and traders/marketers may also participate if they are curious about how actions result in settlements (up to the discretion of the WEIM entity).

### 3.3 Workshop Participation


The CAISO training team may also participate in the following CAISO workshops provided for the WEIM entity in an indirect observational role. As these workshops fall under alternate readiness tracks, WEIM entity will coordinate these optional sessions through the CAISO PM:

- Track 4 Modeling Workshops (T-13)**
- Track 4 Integration and Testing Workshop (T-13)** - Review training plan and inform the development team of the trainings that will be beneficial to the technical team.
- Track 4 Merchant Workshop (T-3, during Market Simulation)** - Review training provided to the WEIM entity merchant team attending the workshop.
- Track 5 Settlements Workshop** - Optional review of settlements concepts for settlements staff.

## 4 WEIM Operational Readiness

### 4.1 Operational Procedures

WEIM entities are responsible for developing their own internal WEIM Operational Procedures. These are required as part of the Readiness Criteria that will be submitted to the Federal Energy

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Regulatory Commission (FERC) before go-live. Some WEIM entities have chosen to provide draft copies of their procedures to CAISO for review prior to finalization.

- CAISO will provide the CAISO WEIM operational procedures months before testing begins so that the WEIM entity can begin developing their own procedures before testing begins (due T-9).
- The WEIM entity is expected to have their operational procedures developed and internally approved before Parallel Operations begins.

## 4.2 WEIM Real-Time Communications

For time-sensitive market related questions, discussions, and system updates, WEIM real-time operators will primarily interact with the RTMO, therefore the WEIM entity must provide a current direct phone number and email distribution list for their WEIM real-time operations desk. A test will be conducted via phone call and Everbridge message to the contact information supplied by the WEIM entity prior to Parallel Operations to ensure that calls and messages from the RTMO can be received and responded to by the WEIM entity’s on-shift WEIM real-time market operator.

## 5 Readiness Criteria

All new WEIM entities must meet certain readiness criteria as determined by FERC in Tariff Section 29.2(b)(7).


### 5.1 Readiness Requirements Evidence and Reporting

The CAISO and the prospective WEIM entity shall each file a market readiness certificate with FERC no later than 30 days prior to the WEIM Entity Implementation Date. The CAISO and WEIM entity senior officers must certify to the following:

- Attest that the processes and systems of the prospective WEIM entity have satisfied or will satisfy the readiness criteria as of the WEIM Entity Implementation Date.
- Identify all known issues requiring resolution prior to the WEIM Entity Implementation Date.
- Identify any exceptions from the established thresholds and that despite such exceptions the criteria were met or will be met.
- The WEIM Entity Implementation Date is conditional on the resolution of the known issues identified in the certificates and any unforeseen issues that undermine the satisfaction of the readiness criteria.

Evidence must be developed and available for all Readiness Criteria to prove it is complete and identify any known issues and/or exceptions. Evidence is stored on the WEIM entity’s secured site and noted in the Readiness Criteria Worksheet. Refer to Appendix C of this document for examples of how to report completion of items #6, 13-14, and 30-31 of the Readiness Criteria Worksheet.



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During Market Simulation, the CAISO must post, at minimum, a monthly update on progress toward the completion of Readiness Criteria, and not less than twice per month during Parallel Operations. These reports will be published on the CAISO website.

The Readiness Criteria will include the following:


- Full Network Model Integration
- Operations Training
- Forecasting Capability
- Balance Schedules
- System Readiness and Integration
- Settlements
- Outage Management System
- Communications between the CAISO and the prospective WEIM Entity
- Market Simulation
- Parallel Operations Plan
- Agreements
- Operating Procedures
- WEIM Available Balancing Capacity
- Flexible Capacity Requirements
- Monitoring

## 5.2 Readiness Criteria Process

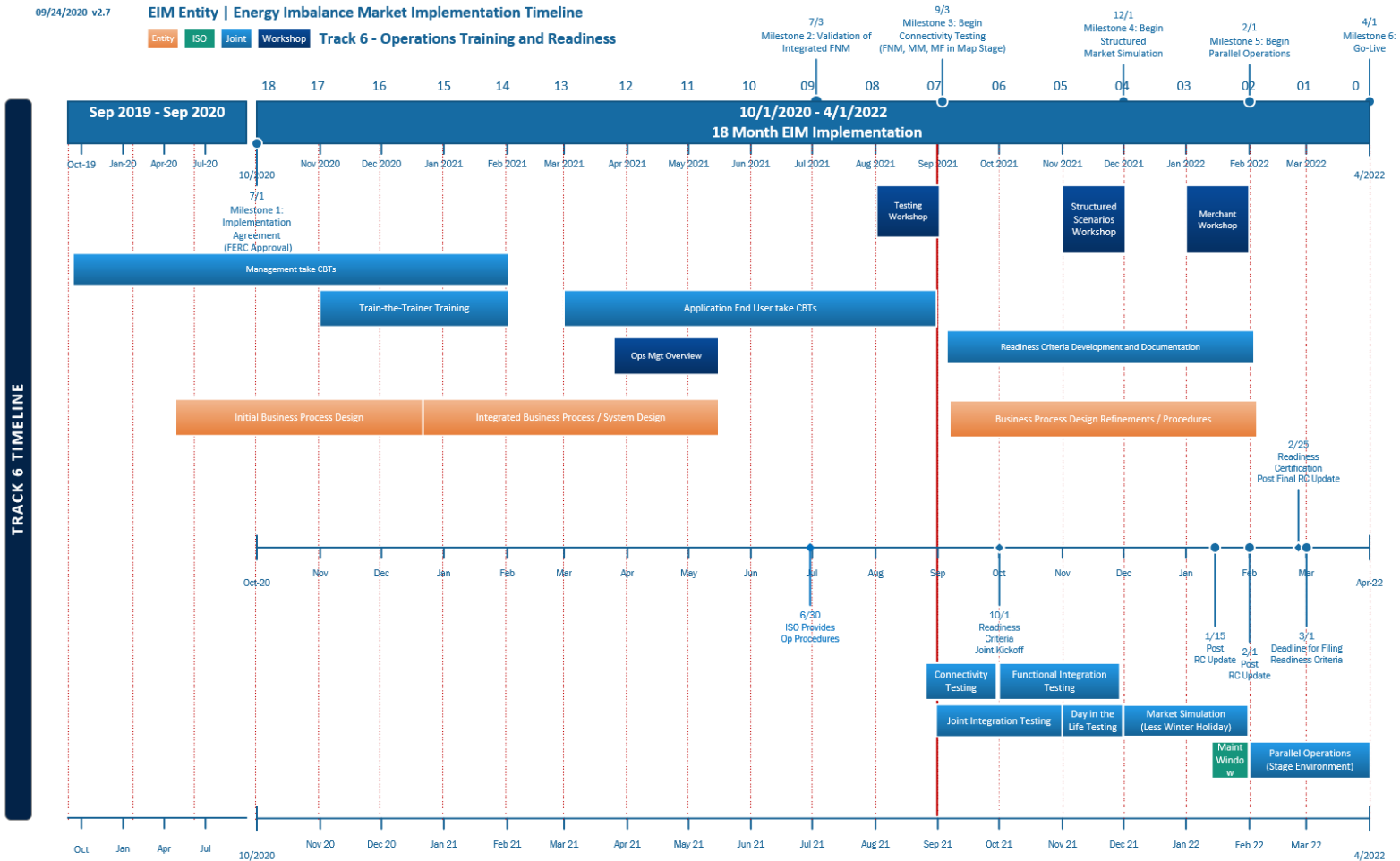
1. The Readiness Criteria Worksheet is used to track status toward readiness. The template can be found on the WEIM entity’s secured site in Kiteworks. The worksheet is used as a tracking tool for both the WEIM entity and the CAISO. It contains a list of each criteria identified in the tariff, measureable elements, thresholds, the WEIM entity and CAISO staff responsible for each criteria, plus the status of each. This worksheet is also used as a template for the required progress updates posted to the [CAISO website](#) during Market Simulation and Parallel Operations.
2. The WEIM entity assigns an overall readiness owner to manage, monitor the readiness criteria, report progress in the weekly status reports, and ensures that all are tracked through to completion.
3. Both the CAISO and the WEIM entity will identify owners for each criteria. The owner is responsible for ensuring the criteria has been met, and that appropriate evidence is captured and stored on the entity’s secured site in the Track 6 > Readiness Criteria folder.

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4. The CAISO PM will review the readiness criteria with the WEIM entity owners, bringing in specific subject matter experts, as needed, to provide clarification and answer questions regarding the criteria and evidence.
5. Regular joint meetings are held with owners to check progress.
6. The CAISO project manager will post status updates to the [CAISO website](#) as required by the Tariff (monthly during Market Simulation and twice monthly during Parallel Operations).

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## 6 Track 6 Sample Timeline



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## 7 Track 6 Key Deliverables


The following are key deliverables required by both the WEIM entity and the CAISO. Dates shown in the “Timing” columns are approximate based on entity readiness schedules. ***WEIM entity should make every attempt to complete these deliverables no later than the timing date.***

### 7.1 Training


Deliverable	Owner	Timing	Description of Deliverable	Format
<b>WEIM Training Plan</b>	CAISO	T-18	The WEIM Training Plan provides a roadmap of the strategic plan for informing and qualifying WEIM entity employees during the WEIM project. The training overview in this document serves as a guide for the WEIM entity to be able to layout their own Training Plan to meet the Track 6 Operations Training and Readiness requirements.	Report
<b>WEIM CBT Training</b>	CAISO	T-18 for Designers  T-9 for End Users	<p>Online training modules designed to provide WEIM entities with an introductory understanding of WEIM concepts and tools. Satisfies level 100 Foundational and level 200 Application category training required in the CAISO Tariff, for Operations as well as Settlements training.</p> <p>Introductory WEIM CBTs are located at: (<a href="https://www.westerneim.com/Pages/Resources.aspx">https://www.westerneim.com/Pages/Resources.aspx</a>) while role specific CBTs require a username and password setup.</p> <p>Refer to <a href="#">Appendix A</a> in this document for a full list of available CBTs and their objectives. Refer to <a href="#">Appendix C</a> for suggestions on how to report completion of this deliverable.</p>	CBT
<b>Training Course Map</b>	CAISO	T-18	<p>Role-specific training recommendations. This is a high level view of the CAISO EIM training and how it relates to specific roles.</p> <p>Refer to <a href="#">Appendix A</a> in this document for a list of recommended CBTs per role.</p>	PDF
<b>Train-the-Trainer Orientation</b>	CAISO	T-16	Webinar to walk WEIM entities through the training events outlined in the Track 6 document. This includes the organization and structure of the	Meeting

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Deliverable	Owner	Timing	Description of Deliverable	Format
			<p>WEIM training program as well as what the WEIM entity can expect of the CAISO training team.</p> <p>The intended audience for this meeting are those within the WEIM entity responsible for coordinating, tracking, delivering and/or facilitating training throughout the WEIM onboarding process, as well as ongoing training after they have successfully gone live.</p>	
<b>Identify Designated Trainer(s)</b>	WEIM Entity	T-15	<p>The WEIM entity will identify one or more designated trainers that are available to attend a train-the-trainer session delivered by the CAISO. Designated trainers can be any individuals that the WEIM entity identifies within their organization who will be available to participate in, deliver and/or facilitate all scheduled training sessions.</p> <p>Refer to <a href="#">Appendix B</a> in this document for designated trainer criteria.</p>	Report
<b>Train-the-Trainer Session: WEIM Overview Training</b>	CAISO	T-12	<p>This course provides the entity’s designated trainers an overview of the main aspects of WEIM, from bid-to-bill. WEIM Entity trainers will be able to take the provided material and scale it as needed for applicable audiences within the organization, including management, support functions, operations, traders, settlements, etc. Designated trainers will be expected to provide a teachback on a portion of the course. Successful completion satisfies foundational level 100 course requirements.</p> <p>Course content is intended for anyone in the entity who may be impacted by, or who has a direct impact on, WEIM operations, including operators, marketers/traders, settlements analysts, technical support, management, trainers/change managers, etc. Designated trainers are identified as those intended to take this information from the train-the-trainer sessions and use it to train their internal staff.</p>	Up-to 14 hour virtual training (over 3 days)

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Deliverable	Owner	Timing	Description of Deliverable	Format
<b>Train-the-Trainer Session: WEIM Resource Management</b>	CAISO	T-12	<p>This course provides the entity’s designated trainers a deeper operational dive of marketer actions in WEIM, outage management within the market, and the tools that will be used. A SME from Market Support will be on hand periodically to answer questions and provide context as necessary. WEIM Entity Markets/Operations/Outage Management trainers will be able to take the provided material and scale it as needed for applicable Market/Operations/Outage Management staff, and direct Operations support as necessary. Designated trainers will be expected to provide a teachback on a portion of the course. Successful completion satisfies foundational and application levels 100 and 200 course requirements</p> <p>Course content is intended for entity personnel tasked with carrying out WEIM responsibilities related to bidding, outage management, resource coordination and modeling, scheduling, etc. Designated trainers are identified as those intended to take this information from the train-the-trainer sessions and use it to train their internal staff.</p>	Up-to 14 hour virtual training (over 3 days)
<b>Train-the-Trainer Session: WEIM Operations Training</b>	CAISO	T-12	<p>This course provides the entity’s designated trainers a deeper operational dive of operations and the tools that will be used. A SME from the RTMO will be on hand periodically to answer questions and provide context as necessary. WEIM Entity Operations trainers will be able to take the provided material and scale it as needed for applicable Operations staff, and direct Operations support as necessary. Designated trainers will be expected to provide a teachback on a portion of the course. Successful completion satisfies level 100-through-300 course requirements.</p> <p>Course content is intended for entity real-time market operators carrying out WEIM responsibilities and those providing direct support</p>	Up-to 18 hour virtual training (over 3-4 days)

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Deliverable	Owner	Timing	Description of Deliverable	Format
			to operators (such as EMS, outage coordinators, etc.). NOT recommended for traders/marketers and settlements personnel. Designated trainers are identified as those intended to take this information from the train-the-trainer sessions and use it to train their internal staff.	
<b>Train-the-Trainer Session: WEIM Settlements Training</b>	CAISO	T-12	<p>This course provides the entity’s designated trainers a deeper operational dive of settlements terminology, documentation and concepts. A SME from Settlements will be on hand periodically to answer questions and provide context as necessary. WEIM Entity Settlements trainers will be able to take the provided material and scale it as needed for applicable Settlements staff. Designated trainers will be expected to provide a teachback on a portion of the course. Successful completion satisfies level 100 and 200 course requirements.</p> <p>Course content is intended for settlements analysts and settlements management. Operators and traders/marketers may also participate if they are curious about how actions result in settlements (up to the discretion of the WEIM entity). Designated trainers are identified as those intended to take this information from the train-the-trainer sessions and use it to train their internal staff.</p>	Up-to 14 hour virtual training (over 3 days)
<b>WEIM Entity Staff Training</b>	WEIM Entity	T-12 to T-2	<p>WEIM entity management and designated trainers will deliver their own training to identified WEIM entity staff based on their internally developed onboarding training plan This should be completed prior to the start of parallel operations.</p> <p>This refers to item #6 of the WEIM Readiness Criteria Worksheet.</p>	Varies per entity

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Deliverable	Owner	Timing	Description of Deliverable	Format
			Refer to <a href="#">Appendix C</a> in this document for suggestions on how to report completion of this deliverable.	
<b>Parallel Operations Support</b>	CAISO	T-2	As needed training support prior to during parallel operations prior to go-live.	Varies per entity
<b>Go-Live Support</b>	CAISO	T	Training support prior to and after go-live dependent upon needs.	Varies per entity


## 7.2 Operations Readiness

Deliverable	Owner	Timing	Description of Deliverable	Format
<b>CAISO Operational Procedures</b>	CAISO	T-9	<p>The CAISO will provide the WEIM entity with the CAISO Operational procedures on the secured site, once the NDA is approved (if applicable).</p> <p>This refers to item #13 of the WEIM Readiness Criteria Worksheet.</p> <p>Refer to <a href="#">Appendix C</a> in this document for suggestions on how to report completion of this deliverable.</p>	Word/PDF
<b>Draft WEIM Entity Operational Procedures</b>	WEIM Entity	T-5	The WEIM entity will provide a first draft of their updated Operational procedures before Market Simulation begins.	Word/PDF
<b>Communications between the CAISO and the Prospective WEIM Entity – Voice</b>	WEIM Entity	T-4	WEIM Entity provides a direct phone number to Customer Readiness for their WEIM real-time market operations desk to be programmed into the RTMO phone system.	Email
<b>Communications between the CAISO and the Prospective WEIM Entity – Email</b>	WEIM Entity	T-4	WEIM Entity provides an email distribution list to Customer Readiness for their WEIM real-time market operations to be used for Everbridge messaging from the RTMO.	Email

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Deliverable	Owner	Timing	Description of Deliverable	Format
<b>Communications between the CAISO and the Prospective WEIM Entity – Demonstration</b>	CAISO	T-4	<p>Customer Readiness coordinates both voice and Everbridge messaging tests between RTMO and WEIM Entity real-time market operations desk based on contact information supplied as part of Track 2.</p> <p>This refers to item #30 and 31 of the WEIM Readiness Criteria Worksheet. Refer to <a href="#">Appendix C</a> suggestions on how to report completion of this deliverable.</p>	Call, Everbridge and Email
<b>Final WEIM Entity Operational Procedures</b>	WEIM Entity	T-2	<p>The WEIM entity will provide final updated Operational procedures before Parallel Operations begins.</p> <p>This refers to item #14 of the WEIM Readiness Criteria Worksheet. Refer to <a href="#">Appendix C</a> in this document for suggestions on how to report completion of this deliverable.</p>	Word/PDF

### 7.3 Readiness Certification

Deliverable	Owner	Timing	Description of Deliverable	Format
<b>CAISO Readiness Certification Worksheet</b>	CAISO	T-8	Worksheet designed to document readiness criteria owners and track progress as the criteria evidence is being developed.	Excel
<b>Readiness Kickoff</b>	Joint	T-8	<p>Introductory meeting between the CAISO and the WEIM entity readiness criteria owners.</p> <p>Refer to <a href="#">Appendix C</a> in this document for suggestions on how to report completion of Track 6 deliverable requirements #6, 13-14, and 30-31.</p>	Meeting

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Deliverable	Owner	Timing	Description of Deliverable	Format
<b>Readiness Certification Progress Posted Online (three posts minimum)</b>	CAISO	Not less than monthly during MS;  Not less than twice per month during Parallel Operations	Readiness Criteria progress tracking sheet will be published to the <a href="http://caiso.com">caiso.com</a> website. This includes the criteria, description, threshold, status and any notes needed to make the status clear.	Excel
<b>CAISO Readiness Certification Letter to FERC</b>	CAISO	T-1	The CAISO must provide a certification letter to FERC once all readiness criteria have been met.	Word
<b>WEIM Entity Readiness Certification Letter to FERC</b>	WEIM Entity	No later than 30 days prior to WEIM Implementation date	The WEIM entity must provide a certification letter to FERC once all readiness criteria have been met.	Word

## 8 Things to Consider


End users are most effective if trained as close to Parallel Operations as possible. End users are determined by the WEIM entity based on organizational departments and roles participating in WEIM activities.

Subject Matter Experts (SMEs) and/or WEIM Entity Trainers are most effective if trained early in the onboarding process. SMEs for the following should be identified:

- Metering
- Settlement
- Market/Traders
- Reliability/Grid Operations
- Outage
- Resource Management
- Application Access

Identified SMEs become WEIM experts and are embedded into the core project/implementation, participating in Training, Functional Testing, Market Simulation, and Parallel Operations.

SMEs team up with internal trainers to customize the training for their organization (bid to bill) based on CAISO provided training materials and knowledge gained during testing. WEIM designated trainers are encouraged to conduct enhanced, system specific hands-on scenarios

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for their identified end users (Operations, Settlements, Traders, etc.) during the second half of Day in the Life Testing, once the systems become more stable.

## 9 Appendix

### 9.1 Appendix A: Course Map and Objectives

#### 1.1. Computer Based Training Courses (CBTs)

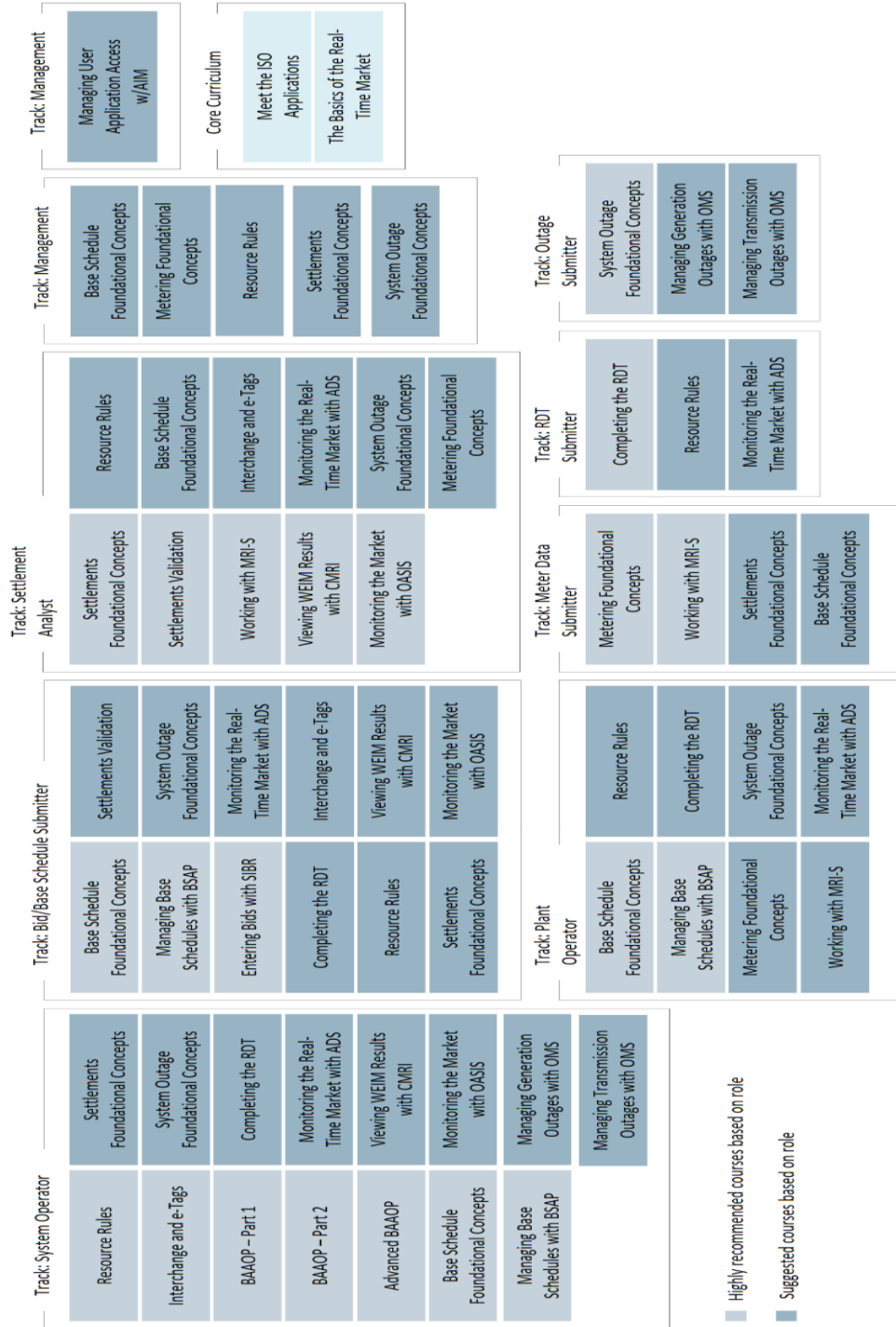
**1.1.1. WEIM CBT User Roles. Users should be added to one or more of the following roles, based on their job functions.**


- **Bid/Base Schedule Submitter:** Submit bids and base schedules in support of the real-time market for WEIM.
- **Management:** Staffs and conducts resource planning for WEIM. They may not be performing the day-to-day responsibilities of WEIM.
- **Meter Data Submitter:** Send meter data to the ISO for settlements purposes. This group is not responsible for meter installation and maintenance.
- **Other:** Provides access to every CBT.
- **Outage Submitter:** Submit changes in availability and communicating important information related to equipment.
- **Plant Operator:** Responsible for both short and long term power plant operations.
- **RDT Submitter:** Capture resource characteristics to provide to the ISO through the Resource Data Template.
- **Settlements Analyst:** Analyze the financial outcome of the ISO markets.
- **System Operator:** Conduct real-time operations and monitors the reliability of the bulk electric system. This includes outage management and support staff.
- **User Access Administrator:** Provide access to ISO Systems.



1.1.2. Computer Based Training Course Map

Western Energy Imbalance Market Computer Based Training Course Map



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### 1.1.3. Computer-Based Training Course Summaries/Objectives

#### Foundational Courses

[Getting Ready to Participate in WEIM](#) is an introduction to the ISO and to the WEIM for new participants.

**Getting ready for training:** Learn what the ISO is, its relation to WEIM and your training path.

**The basics:** Gain a better understanding of how WEIM works and the benefits of WEIM.

**Digging deeper:** Learn the concepts behind WEIM and roles and responsibilities related to WEIM.

[Leading the WEIM transition](#) was developed for the management audience.

**Getting started:** Learn about the agreements and process steps to join WEIM.

**Change for the better:** Gain a better understanding of how joining WEIM impacts your business.

**Your next steps:** Learn about what comes next in the WEIM submission process.

[The Basics of the Real-Time Market](#) explains the ISO market to new WEIM participants.

**Real-time concepts:** learn about the inputs required and outputs produced in WEIM.

**Timeline and processes:** Gain a better understanding of how market inputs and outputs fit in the WEIM timeline processes, including the flexible ramping product.

[Base Schedules foundational concepts](#) explains a base schedule and why it is important to manage energy needs.


**Base schedule basics:** Learn about a base schedule and why it is important to manage energy needs.

**Roles and responsibilities:** Discover the people and tasks associated with creating and managing base schedules.

**Resource sufficiency evaluations:** learn about the tests that are run to ensure that BAs have adequate bids and base schedules to meet their needs.

[WEIM Resource Rules](#) provides information on single stage and multi-stage generators and their impact on base schedules and bids.

**Defining resource types:** Learn the difference between a single stage generator and a multi-stage generator and the impact of non-operable regions within their operating capabilities.

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**FOR scenarios:** Learn how to prevent a dispatch in a forbidden operating region (FOR) in a variety of situations.

**Completing the RDT:** Learn how the Resource Data Template relates to single stage and multi-stage generators (MSGs).

**MSG resource decisions:** Help WEIM participants make good business decisions with their MSG resources.

[System Outages: Foundational Concepts](#) provides basic information about outage concepts, including timelines and process rules.

**System outage basics:** Learn about the basics of outages.

**Process rules:** See more about outage timelines and modifying or canceling outages.

**Outage scenarios:** Practice what you know with real life outage scenarios.

[Interchange and e-Tags](#) explores how interchange is handled in WEIM, and special requirements for e-Tags for WEIM participants.

**Interchange and e-Tag basics:** Learn about interchange and how e-Tags are used.

**ETSRs:** Learn about Energy Transfer System Resources (ETSRs) and how ETSR limits are calculated.

**WEIM interchange requirements:** Learn about the requirements for e-Tags and special terms used in WEIM.

[Metering Foundational Concepts](#) provides key information related to the metering process.

**Metering basics:** Learn about the basics of metering and how it impacts settlements.

**Physical metering:** See more about resource metering and how your portfolio impacts data submission.

**Meter data submission and timelines:** See how settlement quality data is created, and how important the timeline is to your business.


[Settlements Foundational Concepts](#) introduces learners to the key concepts of settlements and settlement validation.

**Settlement basics:** Learn about the settlements process, what goes into a settlement statement and deadlines related to settlements.

**Validating settlements:** Learn about some of the tools and terms you'll need to know to help you validate settlements.

**Resolving common issues:** Learn about the importance of using timely and accurate data in settlements.

[Settlements Validation](#) Introduces learners to common settlement charge codes in preparation for validating settlement statements.

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**Validation basics and timeline:** Learn about the settlements validation process and the charges and payments related to key points on the market timeline.

**The basics of charge codes:** Learn about the market conditions that trigger charge codes by seeing a simple scenario in action.

**The charge codes in action:** Learn about additional market conditions and their related charge codes by working through more advanced scenarios.

### Application Courses

[Meet the WEIM Applications](#) provides a "big picture" view of the applications used to participate in WEIM. You'll learn what applications are used in your role, their purpose, and how they work with other applications.

**A day in the life of WEIM:** Learn about the applications used in WEIM.

**A closer look:** Learn more about the applications used in your role.

**Deeper dive scenarios:** Check your knowledge on the applications used in your role.

[Completing the RDT](#) helps new WEIM participants understand how to fill out the ISO's resource data template in order to populate the master file with resource information.

**Make the connection:** Learn how the RDT fits into the overall workflow of WEIM.

**See it in action:** See how to complete the RDT to provide reliable static data to market applications.

**You try it:** Review completed RTDs to identify common errors in data entry, single stage generator data, and the use of template colors.

**Show what you know:** Take a quiz to identify and describe key RDT concepts and tasks.

[Managing Base Schedules with BSAP](#) is for WEIM participants who will submit base schedules through the Base Schedule Aggregation Portal (BSAP) application.


**Make the connection:** Learn how BSAP fits into the overall workflow of the WEIM and other applications.

**See it in action:** Learn how BSAP uses the information to provide good data. See how to submit and balance a base schedule.

**You try it:** Practice entering, submitting and balancing base schedules in BSAP.

**Show what you know:** Take a quiz to identify and describe key BSAP concepts and tasks.

[Entering Bids in SIBR](#) provides an overview of the SIBR application that scheduling coordinators use to enter bids.

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**Make the connection:** Learn how SIBR fits into the overall workflow of WEIM.

**See it in action:** Learn how to navigate in the SIBR interface. Learn how to enter bids in SIBR, including daily and hourly bid components.

**You try it:** Practice key tasks in SIBR. Enter daily and hourly bid components, and interpret data and bid statuses from the bid summary.

**Show what you know:** Test your knowledge of key SIBR concepts. Complete tasks in SIBR based on real-world scenarios.

[BAAOP Basics Part 1](#) is for system operators of the WEIM entity, who will be using the Balancing Authority Area Operations Portal (BAAOP) to manage the real-time market.

**Make the connection:** Learn how BAAOP fits into the overall workflow of WEIM and other applications.

**See it in action:** Learn how BAAOP used the information to balance the market. See how to correct the market when it is infeasible.

**You try it:** Practice a real-world scenario in BAAOP.

[BAAOP Basics Part 2](#) is for system operators of the WEIM entity, who will be using the Balancing Authority Area Operations Portal (BAAOP) to manage the real-time market.

**Back to basics:** Refresh your memory on the key takeaways from BAAOP basics, part 1.

**See it in action:** Learn more about how BAAOP is used to balance the market. See how to correct the market when it is unbalanced.

**You try it:** Practice using a real-world scenario in BAAOP.

**Show what you know:** Take a quiz to identify and describe key BAAOP concepts and tasks.

[Advanced BAAOP](#) provides information and practice on managing the real-time market. It also identifies methods of troubleshooting market-related issues.

**Troubleshooting in BAAOP:** Refresh your memory on the key takeaways from the BAAOP basics courses, and identify methods of troubleshooting market-related issues.

**See it in action:** See how BAAOP is used to troubleshoot real-time market issues with some advanced processes and critical thinking.


**You try it:** Practice using BAAOP to troubleshoot real-time market issues.

**Show what you know:** Take a quiz and complete simulations to identify and describe key BAAOP troubleshooting concepts.

[Managing Generation Outages with OMS](#) provides an overview of the Outage Management System.

**Make the connection:** Learn how OMS fits into the overall workflow of WEIM and other applications.



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**See it in action:** Learn how to navigate the OMS dashboard, and see how to complete various tasks in OMS, like submitting and modifying outages.

**You try it:** Given real-world scenarios, practice completing common tasks in OMS.

**Show what you know:** Test your knowledge of key OMS concepts and your ability to complete key tasks in OMS.

[Managing Transmission Outages with OMS](#) provides an overview of the Outage Management System (OMS) and how it is used to manage transmission outages (OMS) and how it is used to manage generation outages.

**Make the connection:** Learn how OMS fits into the overall workflow of WEIM and other applications.

**See it in action:** Learn how to navigate the OMS dashboard, and see how to complete various tasks in OMS, like submitting and modifying outages.

**You try it:** Given real-world scenarios, practice completing common tasks in OMS.

[Monitoring the RTM with ADS](#) provides information on the ADS application.

**Make the connection:** Learn how ADS fits into the overall workflow of WEIM.

**See it in action:** See how ADS is used to view and send market instruction information.

**You try it:** Practice using ADS to identify the key fields used, acknowledge alarms, and query instructions.

**Show what you know:** Take a quiz to identify and describe key ADS concepts and tasks.

[Viewing Your WEIM Data with CMRI](#) provides an overview of the CMRI reporting interface that contains proprietary market information resulting from the real-time market process.

**Make the connection:** Learn how CMRI fits into the overall workflow.

**See it in action:** Learn how to perform common tasks within CMRI to view data and run reports.


**You try it:** Practice using CMRI to locate data.

**Show what you know:** Answer questions and complete scenarios to demonstrate how to locate required information.

[Monitoring the Market with OASIS](#) shows you how to use OASIS to monitor market results. Explore how OASIS fits into the larger picture of WEIM participation and other applications.

**See it in action:** Learn about the types of reports and data you can find in OASIS and how to find specific information when you need it.

**You try it:** Practice using various tabs in OASIS to find reports and data you need.

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**Show what you know:** Test your knowledge of key OASIS concepts. Complete tasks in OASIS based on real-world scenarios.

[Managing User Application Access with AIM](#) teaches User Access Administrators how to use AIM to manage access to WEIM applications.

**Make the connection:** Learn how AIM fits into the larger picture of other WEIM applications.

**See it in action:** Learn how to perform common tasks within AIM, including creating and managing users, renewing certificates, and managing access control list (ACL) groups.

**You try it:** Practice using AIM to create users, manage user access, and renew certificates.

**Show what you know:** Answer questions and complete scenarios to demonstrate how to locate required information.


[Working in MRI-S](#) provides information on working with meter data and settlements files.

**Make the connection:** Learn how MRI-S fits into the overall workflow of WEIM and other applications.

**See it in action:** Learn how to use the Batch Status and Meter Data tabs to work with meter data, and how to use the Statements tab to work with settlements files.

**You try it:** Given real-world scenario, practice completing common tasks in the Batch Status, Meter Data and Statements tabs.

**Show what you know:** Test your knowledge of key MRI-S concepts and your ability to complete key tasks in MRI-S.

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## 9.2 Appendix B: WEIM Designated Trainer Roles and Responsibilities

### Prerequisite Knowledge / Skills

- Complete CBTs prior to Train-the-Trainer (T3) attendance.
- Possess general knowledge and/or expertise of roles(s) WEIM entity assigns individual to train.
- Comfortable with learning new information quickly and communicating changes to WEIM entity staff.

### Train-the-Trainer Course Participation

- Attend at least one multi-day Train-the-Trainer (T3) Workshop session.
- Actively participate in teach back activities during the train-the-trainer workshop.


***Note: While WEIM Entity contractors are welcome participate in the Train-the-Trainer Workshop, we highly advise that at least one designated trainer should be a direct employee of the entity to ensure training continuity beyond the WEIM implementation period.***

### Level 100, 200 and 300 Instructor-Led Training Facilitation

- Schedule and facilitate WEIM training sessions with WEIM Entity staff (as needed and determined by the WEIM Entity).

### Active Collaboration

- Respond to inquiries from the Customer Readiness team as needed.
- Assist with incorporating ISO provided training materials into WEIM entity training processes.
- Participate in regularly scheduled check-ins and follow ups via phone/webinar.


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### 9.3 Appendix C: WEIM Track 6 Onboarding Readiness Requirements

#### **WEIM Onboarding Requirement #6: Operations Training (Levels 100, 200 and 300)**

- Customer Readiness to provide tracking template in the Trainer Toolkit.
- “100 series”: an introduction to WEIM training provided through foundational CBTs.
- “200 series”: the specific hourly and daily tasks and duties for normal operation training provided through applications based computer-based training courses.
- “300 series”– the assessment of market results and response to contingencies and abnormal situations training provided through hands-on scenario-based training courses.

Example of evidential email text: *“Please consider this email confirmation that [Organization] has completed WEIM Track 6 Onboarding Requirement #6 Prospective WEIM Entity operators and personnel who will have responsibility for WEIM operations, transactions and settlements, will complete CAISO training modules. [Organization’s] designated trainer(s) attended the WEIM Train-the-Trainer session delivered by the ISO, and used this information as a foundation for providing this Level 100, 200 and 300 series training, in conjunction with assigned CBTs, to our identified staff. We have tracked completion but acknowledge that this evidence is for our own auditable records, though we may choose to upload them to the Track 6 evidence folder in the CAISO secured site.”*

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**WEIM Onboarding Requirement #13 & #14: Operating Procedures**

- Prospective WEIM Entities are to be given access to applicable Operating Procedures from Customer Readiness. If an NDA is required to view confidential materials, Customer Readiness will help facilitate the process. **NOTE: As of 2020, and NDA is no longer required since all identified Operating Procedures are now public and a list shared with entity greater than 4 months in advance.**

Example of evidential email text: *“Please consider this email confirmation that [Organization] has completed WEIM Track 6 Onboarding Requirement #13 the prospective WEIM Entity signs CAISO non-disclosure agreement and receives appropriate CAISO “public” and “restricted” operating procedures. ISO shared a list of applicable ISO Operating Procedures found on the www.caiso.com site which we were able to download for WEIM onboarding purposes.”*

- Prospective WEIM Entities are to create their own internal WEIM procedures and train their identified end-users on them. An email to Customer Readiness at the completion of this stating that they were given access to Procedures, developed their own internal WEIM procedures (draft and “final”) and trained their employees mid-market sim, prior to parallel ops. It is recognized that the Prospective WEIM Entity may make changes to these procedures as they learn more through parallel ops.

Example of evidential email text: *“Please consider this email confirmation that [Organization] has completed WEIM Track 6 Onboarding Requirement #14 the prospective WEIM Entity operating procedures are defined, updated, and tested for the WEIM Entity Scheduling Coordinator. We have created our own WEIM Operating Procedure(s) and implemented them, including sharing them with applicable [Organization] personnel prior to parallel operations. It/They has/have been uploaded to the Track 6 Evidence folder in the CAISO secured site. We acknowledge that this/these procedure(s) may be updated during parallel operations as needed.”*

**WEIM Onboarding Requirement #30 & #31: Communications between the CAISO and the prospective WEIM entity** Customer Readiness coordinates both voice and Everbridge messaging tests between RTMO and WEIM Entity WEIM Operations Desk based on contact information supplied as part of Track 2.

- Once this is completed, Prospective WEIM Entity sends an email to Customer Readiness confirming these communication tests have been completed.

Example of evidential email text: *“Please consider this email confirmation that [Organization] has completed WEIM Track 6 Onboarding Requirement #30 Implemented process and procedures used for voice and/or electronic messaging, and #31 Staff are trained on communication procedures and tools. Phone calls using the documented WEIM Operations desk and Everbridge messaging using the documented WEIM Operations desk email address have been tested with the RTMO and deemed successful.”*