

# Project Plan

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## Energy Imbalance Market (EIM) Entity Implementation

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<Versioning should be as follows:

1. Draft – When a document is still in its developing stages and is not ready for review and sign off.
2. V 0.n – When changes are made before the document is ready for initial review.
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# 1. Project Definition

## Energy Imbalance Market (EIM) Entity Implementation

### 1.1 Project Summary

*<In this section provide a high level description of the proposed project. Edit the example provided.>*

EIM Entity entered into a memorandum of understanding with the California ISO (CAISO) to join in the CAISO’s regional real-time energy imbalance market (EIM). This regional market provides ease of entry for balancing authorities (BAs) and optimizes supply and demand with more precision through five-minute energy dispatch. The CAISO filed a request with Federal Energy Regulatory Commission (FERC) to approve an Implementation Agreement reached with EIM Entity that outlines how the CAISO’s existing energy market could be expanded to provide real-time services to EIM Entity. Exhibit A to the Implementation Agreement requires the Parties to mutually agree to a project management plan. This project plan represents the mutually agreed to project management plan.

The Energy Imbalance Market (EIM) project will comprehensively determine the impacts, requirements, and specifications for all systems, processes, policy, finances, and functions that would support the addition of EIM Entity. Pursuant to the Implementation Agreement, this project plan will outline the methods that will be used to track schedules, status, issues, and risks to achieve the milestones described in Exhibit A and will describe the organizational structures and communication protocols to be established between the CAISO and EIM Entity leading up to the implementation date.

This project plan shall be governed by the terms and conditions under the Implementation Agreement, including Exhibit A. This project plan is not intended to amend, modify, change, or otherwise supersede the terms and conditions of the Implementation Agreement. To the extent there is a conflict between the terms and conditions of this project plan and the Implementation Agreement, the terms and conditions of the Implementation Agreement shall govern and supersede the project plan.

### 1.2 Business Opportunity

*<In business terms, describe the business problem and/or opportunity that initiated the need for this request. Answer the question, “Why is the project being done?” Revise based on your business opportunity.>*

An EIM manages real-time imbalances on the grid economically, reliably, and automatically. Deviations in supply and demand occur in every hour resulting in a mismatch, or imbalance, between available electricity versus what is needed by consumers. BAs have traditionally tried to manage these imbalances by relying on manual dispatches and extra power reserves. An EIM solves these imbalances in real-time with more precision through an automated 5-minute energy dispatch service. EIM’s automation and economic dispatch lower costs for participants and become even more valuable as additional renewable resources connect to the grid.

By extending its existing infrastructure, the CAISO offers EIM services to other BAs at low cost and low risk to new participants. The CAISO approach is also highly scalable, meaning that new entities can be added incrementally when they are ready. Added participation brings benefits to both new customers and existing customers of the CAISO. The EIM provided by the CAISO allows other BAs to leverage the benefits of real-time balancing while also maintaining all of their existing authority. BAs remain responsible for procurement or self-provision of reserves and other ancillary services. The

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EIM does not change North American Electric Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) responsibilities for resource adequacy, reserves, or other BA reliability-based functions for the EIM Entity.

EIM does, however, change how participating BAs deal with imbalances in real time. All BAs start the hour with matched generation and forecasted load. Imbalances occur within the hour because load and generation typically vary slightly from what is forecasted. Resources within the EIM area can voluntarily provide bids to dispatch their facilities to manage these imbalances. The EIM will automatically look across the expanded EIM region and dispatch the most economical bids available to meet these imbalances. The real-time optimization determines the least cost mix of resources and dispatches them to resolve these imbalances while also respecting limits on the transmission system to alleviate overloads or congestion.

### 1.3 Business Objectives and Measures

*<Objectives are lower level statements that should be specific and measurable and can include possible recommendations for products and deliverables of the project. The objective should be written at a lower level, so that it can be evaluated at the conclusion of a project to see whether it was achieved or not.>*

Objective	Criteria	Measure

## 1.4 Project High Level Scope

*<The scope of a project describes all the work required to deliver a product, service, or result with the specified features or functions. It is important to identify what is in scope as well as what is not in scope in order to manage it. Scope often relates to the creation or delivery of policies, procedures, processes, and IT systems. Several tracks are proposed to manage the EIM Entity implementation.>*

### 1.4.1 Track 1: Planning and Project Management Track

The EIM Project Management track will ensure project management and oversight coordination between CAISO and EIM Entity teams. The scope for this track will include planning documents, project schedule, budget tracking, status reports, issues, risks, overall readiness checklists, and any other planning and controlling documents, processes, and activities to support a successful implementation of the project. The project will utilize standard System Development Life Cycle (SDLC) artifacts adapted specifically for this implementation. The table below summarizes main deliverables for this track with target deadlines.

*<EIM Implementation Target Dates are based on an 18-month cycle that spans 3 years, October of year 1 through April of Year 3. For the deliverable tables below, Year 1, Year 2, and Year 3 are to be replaced with the corresponding year depending on the go-live year.>*

<b>Deliverable</b>	<b>Description</b>	<b>Owner</b>	<b>Target Date</b>
Project Plan	Document used to guide the EIM project execution and control	Joint	April Year 1
Project Schedule – original baseline	Listing of the EIM project interrelated milestones, activities, and deliverables with intended start and finish dates	Joint	April Year 1
Impact Assessment	Document describing the high-level impacts to people, process, and technology	Joint	January Year 1
Go-Live Support Plan	Document specifying the methodology, documentation, references, and responsibilities for supporting the EIM live system	Independent	January Year 3
Checkpoint Meetings – multiple tracks	Working and status meetings to evaluate and facilitate project implementation progress	Joint	Weekly or bi-weekly
Monthly Project Delivery Leadership Meetings	Monthly meetings with EIM Project Delivery Leadership team; envisioned to be face-to-face and alternating locations	Joint	Monthly
Progress Evaluation, Key Decisions, and Next Steps Meetings	Agenda items to be discussed at project review meetings	Joint	Monthly
Quarterly Executive Meetings	Quarterly meetings with EIM Executive Steering Committee; envisioned to be face-to-face and alternating locations	Joint	Quarterly

### 1.4.2 Track 2: Policy, Legal and Support Track

This track includes policy and stakeholder processes, legal supporting activities, EIM registration, client services setup and support, and external communication. The table below lists a set of main deliverables that will be monitored and managed under this track. A complete list of activities, milestones, and deadlines associated with this track is specified and will be updated in the project schedule.

<b>Deliverable</b>	<b>Description</b>	<b>Owner</b>	<b>Target Date</b>
Completion of EIM Entity Stakeholder Process	Outreach to EIM Entity Stakeholders to discuss EIM Entity Implementation benefits and impacts	EIM Entity	July Year 2 (T-9)
File Open Access Transmission Tariff (OATT)		EIM Entity	August Year 2
EIM Entity and Scheduling Coordinator Agreements Process	Complete and execute all required EIM Agreements (based on EIM Entity's anticipated operations) listed in the EIM Entity EIM Agreements Checklist. Agreements will be executed at different times as specified in the EIM Entity EIM Agreements Checklist but several of the major ones, such as the SC agreements, will have a target of May 2019.	EIM Entity	May Year 2
Other Legal Agreements	To be determined	EIM Entity	May Year 2
Major Maintenance Adders (MMA)	For each Participating Resource, establish a registered value for the cost of long term maintenance (e.g. that is a function of the cumulative hours of run time or cumulative starts). Initial MMA due in November, but can be adjusted for Parallel Ops or Go-Live.	EIM Entity	June Year 2
Default Energy Bids (DEB)	For each Participating Resource or Non-Participating Resource which provides Available Balancing Capacity, establish a registered value for marginal operating costs. This value will be used when Market Power Mitigation is triggered and in some other cases.	EIM Entity	June Year 2
System Access	Submit application access request forms for members of EIM Entity organization	EIM Entity	July Year 2

### 1.4.3 Track 3: EIM Network Model and EMS Changes

The CAISO models transmission and generation assets in several systems. Key are the Network Model in the CAISO EMS and the Master File.

The Energy Management System (EMS) is used to monitor the real-time status of the bulk electric system and to provide the real-time estimated power system solution necessary to determine the initial condition for real-time market applications.

As part of this project, the CAISO and EIM Entity will integrate the EIM Entity EMS model into the CAISO EMS model. When these changes are implemented, the CAISO will receive real-time data using an ICCP data link from EIM Entity. The CAISO will merge all of EIM Entity operational displays to keep the two systems alike. In Production, EIM Entity will follow the CAISO's process to ensure incremental updates to the EIM Entity Network Model are synchronized between the EIM Entity and CAISO EMS systems.

EIM Entity will work with the CAISO and the energy management system vendor to export EIM Entity's network model to the CAISO. This includes exchange of displays, data points, limits, and possible contingencies. EIM Entity will work with the CAISO to integrate all of this data into their full network model. EIM Entity and the CAISO will establish an intercompany communication protocol to be used for transferring real-time data from EIM Entity to CAISO. EIM Entity will work with its EMS vendor to upgrade baseline displays needed for communicating dispatch instructions to generators, EIM Entity transmission operations, and the CAISO. EIM Entity will develop internal tools within the EMS to be used for communicating dispatch instructions to generators, EIM Entity transmission operations, and the CAISO.

The Master File specifies many of the properties of EIM Entity's generation and inertia resources for the purposes of scheduling, bidding and settlement. EIM Entity will communicate these properties to CAISO via the Generator and Inertia Resource Data Templates (RDTs). The generator properties specified in the Master File, such as minimum and maximum operating points, startup times and ramp rates, have a significant impact on the way units are dispatched. These parameters should, as much as possible, align with the Network Model. In Production, EIM Entity will follow the CAISO's process to ensure incremental updates to the EIM Entity's RDTs are incorporated in the CAISO Master File.

The major milestones targeted for this effort include:

<b>Deliverable</b>	<b>Description</b>	<b>Owner</b>	<b>Target date</b>
Initial RDT	EIM Entity creates an initial RDT with the planned Participating Resources for review and discussion with the CAISO.	EIM Entity	December Year 1
Initial Network Model	EIM Entity deliver network model in standard CIM format which can be imported into a CAISO test environment EMS	Joint	October Year 1
RDT / Metering / Network Model Alignment	Workshops to ensure alignment on planned operation of EIM Entity assets in EIM and consistency of modeling in Master File, Network Modeling and Metering.	Joint	April Year 2
Network Model Initial Approval	Initial review of the submitted CIM model. Approval is required before full integration begins.	CAISO	January Year 2
Network Model Validation	Complete validation in the CAISO EMS for all EIM Entity SCADA points	Joint	May Year 2
Market Simulation RDT	Update the RDT for all Participating and Non-Participating Resources for participating in Market Simulation.	EIM Entity	July Year 2
Merge Network Model	Complete export of EIM Entity network model into the CAISO test network model	Joint	August Year 2

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Deliverable	Description	Owner	Target date
	(QAS Model) to facilitate testing in MAP-Stage.		
EMS Model Update	EMS model update process deployment	Joint	August Year 2
Production Network Model	Integrated CAISO and EIM Entity EMS system deployed in CAISO Production environment	Joint	November Year 2

#### 1.4.4 Track 4: System Integration and Testing

This track will oversee a large set of CAISO and EIM Entity efforts to implement systems changes in support of the EIM market implementation. This section identifies key undertakings, configured and managed as sub-projects, necessary to the overall EIM implementation.

Deliverable	Description	Owner	Target Date
System Integration Plan	Data flow and other integration diagrams and specifications to define all data exchange between the EIM Entity and the CAISO. Template not provided by the CAISO.	Joint	Q1 Year 2
Test Plan	Document defining the approach to EIM Entity's internal functional and non-functional testing for EIM functionality, roles and responsibilities, defect criteria and management and other testing functions. Template not provided by CAISO.	Joint	March Year 2
Technical Interface Specifications	Documents specifying detailed interfaces with CAISO systems required for EIM participation. This deliverable is for the Fall Release versions.	CAISO	April Year 2
Test Plan Updates for UAT (suggested)	Update to Test Plan defining the approach to EIM Entity's internal User Acceptance Testing Document guiding the conduct and specifying the criteria for end user acceptance of the new EIM system. Template not provided by CAISO.	EIM Entity	May Year 2
Market Simulation Plan	Document specifying the scope, the timeline, and the methodology for conducting the market simulation exercise.	Joint	June Year 2
Parallel Ops Activation Plan	Document specifying the processes and responsibilities for implementing the new EIM system and activating it in production mode in EIM Entity's production environment.	CAISO	December Year 2

<b>Deliverable</b>	<b>Description</b>	<b>Owner</b>	<b>Target Date</b>
CAISO Production Activation Plan	Timeline for CAISO Production cutover activities and mapping with EIM Entity activities.	Joint	February Year 3

#### 1.4.5 Track 5: Metering and Settlements

The CAISO metering department will support EIM Entity's significant effort to meet standards and implement specific procedures required to comply with the CAISO requirements for EIM participation.

Some of the main tasks included in this project are:

- By joining the CAISO and utilizing its 5-minute model, EIM Entity will need to capture 5-minute metering data needed for CAISO settlement.
- Support configuration, validation, and implementation processes for EIM Entity metering feeds
- Support market simulation
- Conduct Scheduling Coordinator Metering Entity (SCME) training for EIM Entity

Generator and Intertie resource definitions in the Master File are also critical in the submission of Meter data and the calculation of settlement charges. The metering infrastructure should, as much as possible, align with the way resources are defined in the Master File.

The EIM configuration guides and charge codes will provide specifications for the EIM Entity to develop their Settlements system. The EIM Entity will develop an interface to receive and review third party generator settlement data from the CAISO and have appropriate processes and systems in place to pass through appropriate transmission charges to third party if party elects to participate.

<b>Deliverable</b>	<b>Description</b>	<b>Owner</b>	<b>Target date</b>
Metering Kickoff Meeting and Metering Requirements Overview	Review the options for providing metering data and CAISO requirements.	Joint	Q4 Year 1
Physical Meter Assessment / SQMD Plan Development	Initial EIM Entity planned approach for deployment of revenue quality meters and other measuring devices for each generation resource and intertie point. EIM Entity and CAISO workshop to discuss the planned metering and resource properties and create a final set of metering points and infrastructure which will be acceptable in Production.	Joint	Q3 Year 2
Meter Replacement / Configuration Schedule	A project schedule showing the activities for the Entity's Meter replacement project.	EIM Entity	Q3 Year 1
Meter Data Submission	Submit EIM Entity meter data via the testing tool (UI, API).	EIM Entity	Q3 Year 2
EIM Metering Portfolio Testing and Validation	On-site testing and validation at EIM entity's facility consisting of all EIM market resources utilizing related systems, processes, and personnel responsible for the collection, validation and submission of SQMD.	Joint	Q3 Year 2

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<b>Deliverable</b>	<b>Description</b>	<b>Owner</b>	<b>Target date</b>
SQMD Portfolio Approval	The CAISO must approve a Scheduling Coordinator Metered entity's SQMD Plan(s) before the Scheduling Coordinator may submit Bids on its behalf into the CAISO Markets.	Joint	Q3 Year 2
Settlement Configuration Guides	Documents specifying detailed charge codes for EIM participation.	CAISO	April Year 2

#### 1.4.6 Track 6: Operations Training and Readiness

This track is responsible to specify, design, and implement processes that ensure EIM operational readiness. The EIM aspects managed under this track include grid operations personnel, operational training, market monitoring, and market analysis and validation. Major milestones for activities associated with these EIM business aspects include:

<b>Deliverable</b>	<b>Description</b>	<b>Owner</b>	<b>Target date</b>
Training Plan	Document describing the approach to developing and delivering all necessary training to ensure successful execution of the EIM Implementation project and readiness ahead of EIM activation.	Joint	Q2 Year 1
CAISO Market CBTs	CAISO creates and makes available Computer Based Training (CBT) courses for the courses described in the EIM Training Catalog.	CAISO	Q2 Year 1
EIM Settlement 101 and 201 Training	CAISO provides a hands on settlement training.	CAISO	Q3 Year 2
CAISO Operating Procedures	CAISO provides the planned Go-Live Operating Procedure documents to EIM Entity.	Joint	June Year 2
Hands-on End User Training	Begin EIM End User training (Entities, SMEs, and trainers to deliver training with CAISO support).	Joint	November Year 2
EIM Entity's Operating Procedures	Document Entity's Operating Procedures.	EIM Entity	January Year 3
Readiness Criteria	Certification that the Readiness Criteria for EIM Go-Live have been satisfied.	Joint	March Year 3

## 2. Project Budget and Milestones

### 2.1 Estimates for CAISO Implementation

*<The budget information is provided in the Implementation Agreement. It is included here as a reference.>*

### 2.2 Milestone Payments

The table below specifies the Milestone Payments and the anticipated dates of those payments. A full description of the Milestone criteria is provided in [Section 2.2](#).

Payment Milestone	Anticipated Date	Payment Amount
<b>Payment Milestone 1</b> – FERC Approval of EIM Implementation Agreement	April Year 1	\$
<b>Payment Milestone 2</b> – Validation of Integrated Full Network Model	July Year 2	\$
<b>Payment Milestone 3</b> – Begin Joint Integration Testing	September Year 2	\$
<b>Payment Milestone 4</b> – Begin Structured Market Simulation	December Year 2	\$
<b>Payment Milestone 5</b> – Begin Parallel Operations	February Year 3	\$
<b>Payment Milestone 6</b> – EIM Go-Live	April 1, Year 3	\$
<b>TOTAL BUDGET:</b>		\$

### 2.3 Project Milestones

*<The project milestones are provided in the Implementation Agreement. They are included here as a reference.>*

Project Scope and Milestones	Project Delivery Dates	Completion Criteria
<b>Detailed Project Management Plan</b> – The Parties will develop and initiate a final project management plan that describes specific project tasks each Party must perform, delivery dates, project team members, meeting requirements, and a process for approving changes to support completion of the Project.	April Year 1	Approval of Project Plan and Schedule by EIM Entity and CAISO management identified on the cover page.
<b>Milestone 1</b> – This milestone is completed when: the Agreement has been made effective in accordance with Section 1 of the Agreement.	April Year 1	Publication of FERC order.
<b>Full Network Model Expansion</b> – Full Network Model expansion for EIM Entity and EMS/SCADA, including, proof of concept of export/import of EMS data; complete model into the CAISO test environment; complete validation for all SCADA points from EIM Entity; testing of the new market model; and validation of the Outage and State Estimator applications.	November Year 1	Successful export of EIM Entity network model and import of that model into the CAISO Full Network Model.

Project Scope and Milestones	Project Delivery Dates	Completion Criteria
<b>Milestone 2</b> – This milestone is completed upon modeling EIM Entity into the CAISO Full Network Model through the EMS which will be deployed into a non-production test environment using the CAISO's network and resource modeling process.	July Year 2	Validation of Network Model with no issues and promotion of Network Model to non-production test environment.
<b>System Implementation Program Improvements</b> – System requirements and software design, the execution of necessary software vendor contracts, technical interface specifications and configuration guides, and other related activities.	August Year 2	EIM Entity Software and Interfaces are ready to connect to a non-production test system.
<b>Milestone 3</b> – CAISO to promote market network model including EIM Entity area to non-production system, and allow EIM Entity to connect and exchange data in advance of Market Simulation. This triggers the start of joint integration testing and functional testing by EIM Entity and the CAISO.	September Year 2	CAISO network model, market model and master file are available in test environment to enable EIM entity integration testing.
<b>Construction, Testing and Training in Preparation for Market Simulation</b> – This task includes IT infrastructure upgrades, security testing, training simulators, and functional testing.	September Year 2	EIM Entity and the CAISO systems ready for Structure Market Simulation.
<b>Milestone 4</b> – The EIM market simulation will allow EIM Entity and the CAISO to conduct specific market scenarios in a test environment prior to the production deployment to ensure that all system interfaces are functioning as expected and to produce <b>simulated</b> market results. To complete this milestone, the commencement of EIM simulation will signal that the EIM Entity and the CAISO have independently completed EIM system design, development and testing.	December Year 2	EIM Entity access to the CAISO MAP-Stage environment with all relevant EIM system interfaces for the purpose of Market simulation.
<b>Activate Parallel Operations</b> – The CAISO will activate a parallel operation environment to practice production grade systems integration as well as market processes and operating procedures in anticipation of the impending EIM Entity activation as an EIM Entity and to confirm compliance with the EIM readiness criteria set forth in the CAISO tariff.	January Year 3	
<b>Milestone 5</b> – Start of parallel operations	February Year 3	Successful Start of Parallel Operations in the CAISO Stage Environment
<b>System Deployment and Go Live</b> – Implementing the Project and going live will include resource registration, operating procedures and updates, execution of service agreements, completion of the EIM Entity tariff process, applicable board approvals, the filing and acceptance of service agreements and tariff changes with FERC, and completion and filing of a readiness criteria certification in accordance with the CAISO tariff.	March Year 3	Readiness Criteria Achieved.
<b>Milestone 6</b> – This milestone is complete upon the first production EIM Entity energy imbalance market trade date.	April 1, Year 3	Completion of first financially binding Operating Date.

### 3. Project Approach

*<The EIM implementation project will use largely a sequential project management approach using the CAISO standard project management processes and templates. Some parts of the implementation may use an iterative approach, in particular for software development, to facilitate early testing of the core functionality and allow for incremental refinement of the quality of the solution.>*

#### 3.1 Decision Making and Escalation

The CAISO and EIM Entity agree upon a collaborative approach to project delivery and will endeavor to make decisions based on consensus between the parties. As a general approach, both parties will ensure that project scope, schedule, and budget are being managed transparently and will avoid surprises by providing comprehensive updates and proactively managing issues and risks.

When a decision is required, it will be defined by specific requirements for outcome (what), date (when), and ownership (who). Both parties will work toward an agreement of these requirements utilizing the EIM principles. Decisions will be made within the project delivery team responsible for the scope, unless coordination is required with other teams. Decisions across teams and across parties will be overseen by the Leadership team.

If a dispute arises between the parties, either party may provide written notice to the other party, including a detailed description of the subject matter of the dispute (the "Dispute Notice"). The parties shall make a good faith effort to resolve the dispute by prompt negotiations between each party's designated representative (each a "Manager"). If the Managers are not able to resolve the dispute within thirty (30) days after the date of the Dispute Notice, they shall refer the matter to the designated senior officers of each party (the "Executives"), who shall have authority to settle the dispute. Notwithstanding the foregoing, this Section 3.1 is not intended to amend, modify, or otherwise supersede the parties' rights to dispute resolution under Section 11 of the Implementation Agreement.

#### 3.2 Project Teams

##### 3.2.1 Joint EIM Executive Steering Committee

The joint executive steering committee will meet quarterly and on an as-needed basis. Travel for face-to-face meetings will be determined on an as-needed basis. It will review key milestones and ensure that the Implementation Agreement is upheld.

CAISO - * indicates primary attendees	

<b>EIM Entity - * indicates primary attendees</b>	

### 3.2.2 EIM Project Delivery – Leadership Team

The project delivery leadership team will meet monthly and on an as-needed basis. Travel for face-to-face meetings will be determined on an as needed basis. It will review key reports and issues presented by the Project Managers and Technical Leads and provide guidance and facilitate resolution. It will also facilitate communications across departments during the execution of the project.

<b>CAISO - * indicates primary attendees</b>	

<b>EIM Entity - * indicates primary attendees</b>	

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<b>EIM Entity - * indicates primary attendees</b>	

### 3.2.3 EIM Project Strategy and Outreach – Leadership Team

The strategy and outreach leadership team will meet at least twice monthly, possibly leveraging policy and tariff stakeholder meetings. Travel for face-to-face meetings will be determined on an as needed basis. It will review key strategic items and will align outreach and other communication efforts.

<b>CAISO</b>	
<b>EIM Entity</b>	

### 3.3 Project Schedule Management

The CAISO and EIM Entity will create and maintain independent project schedules using Microsoft Project or other mutually agreed upon project management tool. The project schedules will contain the detailed tasks that each party will perform to implement all areas of scope to meet the high level milestones. A project baseline will be established. However, it is expected that both parties will evolve their schedules through continued elaboration of detailed tasks. Both parties will update and exchange their project schedules weekly and will jointly review scheduled tasks and dependencies on a monthly basis.

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Any changes in scheduled tasks that will impact the other party or will jeopardize high level milestones will be tracked as issues and will be subject to change management and decision making protocols.

### 3.4 Review and Approval of Technical Specifications

The CAISO maintains the technical specifications required to exchange EIM data between systems. The technical specifications are delivered as XSD and WSDL file formats and associated release notes. Integration workshops will be held with the CAISO and EIM Entity Project Delivery staff to discuss the technical specifications. Refer to the data flow diagram (provided separate from this document) for more information.

The key interface touchpoints between EIM Entity and CAISO are listed in the “Day in the Life Energy Imbalance Market Version 1.0” document. Technical specifications associated with these interfaces are located at <http://www.caiso.com/participate/Pages/ApplicationAccess/Default.aspx>.

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### 3.5 Change Management

Change requests may be initiated by the CAISO and/or EIM Entity teams or by external stakeholders, legally or contractually, mandated, or optional. Only formally documented requested changes will be processed and only approved changes will be implemented. A change can be requested by the project team and/or project stakeholders or could be a natural outcome of an unforeseen project event. The change could be to project scope, schedule, cost, or quality.

The Project Managers from CAISO and/or EIM Entity will complete a Change Request form. The form is attached in Appendix of this Project Plan document.

The Change Request Form will include rationale for the change and a description of impact on the project scope, schedule, cost, or quality, and a risk analysis of impact to the EIM project of not executing the change.

All Change Requests will be decided upon in a collaborative manner by the CAISO and EIM Entity teams.

If a Change Request is approved, it will be signed by the CAISO and EIM Entity Project Managers and implemented. The signed Change Request document will be maintained as verification for approval to implement the requested change. Notwithstanding the foregoing, this project plan is not intended to amend, modify or otherwise supersede the requirements under Section 3(c) of the Implementation Agreement with respect to changes to Exhibit A or the Implementation Date (as defined in the Implementation Agreement).

## 4. Project Risk and Issue Management

### 4.1 Risk Management Process

Project risk will be assessed regularly during the project, and when any major shifts occur to schedule, budget and/or resources. An initial risk assessment will be conducted during project planning. The CAISO and EIM Entity project teams and selected stakeholders will assess risk at the beginning of each major phase in the project lifecycle and update the risk register and the risk response action plan. Every risk will be evaluated for possible impact, appropriate mitigation strategy, and contingency plans. Mitigation strategies will be adopted, where appropriate.

### 4.2 Risk Management Responsibilities

The Project Managers for CAISO and EIM Entity have the overall responsibility for the risk management plan and the risk response plan. Owners will be assigned to each risk so that in the event of a risk becoming a reality, it will be immediately addressed. If necessary, for selected risks, additional responsibilities will be assigned for support functions in addition to the lead responsibility.

### 4.3 Risk Communication

The CAISO and EIM Entity will identify, assess, and track project risks using the risk register template shown below. Project risks will be jointly reviewed at the monthly status meeting.

Risk ID	Author	Date registered	Description	Risk Owner	Probability	Impact	Countermeasures	Status
					how likely it is that this risk will occur. <b>Low</b> (<30%), <b>Medium</b> (31-70%) <b>High</b> (>70%)		Actions to be taken to prevent, reduce, or transfer the risk. This may include production of contingency plans	
					assessment of the impact that the occurrence of this risk would have on the project. <b>Low</b> <b>Medium</b> <b>High</b>		<b>Active:</b> risk has been triggered ( has occurred) and is being actively managed <b>Closed:</b> a risk that was opened erroneously and is not valid <b>Resolved:</b> a risk that occurred and has been completely addressed <b>Future:</b> an identified risk that has not yet been triggered (has not occurred) and is actively being managed	

The risk register will be maintained by both CAISO and EIM Entity in the shared secured site at: **OPEN**

## 4.4 Project Issues Management

Issues are immediate problems that need to be solved through new tasks added to the project’s plan, an extended schedule and/or an increase to the budget. After these are set and implemented, issues will be tracked and resolutions will be attempted until the issue is removed from the project.

The CAISO and EIM Entity will identify, assess, and track project issues using the issue register template shown below. Project risks will be jointly reviewed at the monthly status meeting.

Issue ID	Description	Assigned to	Action Date	Priority	Discussion/Resolution	Status

Specifies the order in which the issues should be addressed  
**Low**  
**Medium**  
**High**

**Active:** an open issue that is being actively managed  
**Closed:** an issue that was wrongly opened and is not valid.  
**Resolved:** an issue that occurred and has been completely addressed.

The issue register will be maintained by both CAISO and EIM Entity in the shared secured site.

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## 5. Communication Management Plan

### 5.1 Communications Protocol

As described in Section 10 of the Implementation Agreement, Parties shall provide reasonable and timely communication with the other Party. Parties shall provide advance notice and coordinate with the other Party ahead of a planned press release or distribution of material containing information that has not been previously agreed upon by both Parties. Additionally, nothing in these messages shall prevent, limit, or delay either Party from all disclosure required by applicable law or regulation or as otherwise permitted by the Implementation Agreement.

There will be reasonable notice of any executive level meetings and stakeholder meetings that involve a discussion of the EIM partnership in advance of scheduling the meetings. In the event either Party engages in material unplanned communications about the Project that otherwise should have been subject to the communication protocol, such Party shall provide notice to the other Party as promptly as possible of the nature and content of such communication. Both Parties can conduct media interviews, have routine discussions, and provide standard presentations on the EIM topic without prior notice as long as the content of the discussions does not differ from previously coordinated messages.

Notwithstanding the foregoing, this Section 5.1.1 is not intended to amend, modify or otherwise supersede the communication requirements under Section 10 of the Implementation Agreement.

Pursuant to Section 10 of the Implementation Agreement, the Parties shall provide reasonable advance notice and coordinate with the other Party ahead of planned press releases or distribution of material outside of CAISO or EIM Entity if that material contains information that has not been agreed upon by both Parties; provided, however, that nothing herein shall prevent, limit, or delay either Party from (i) providing briefings to executive management or governing boards, (ii) making any disclosure required by applicable law or regulation, or (iii) making any disclosure otherwise permitted by the Implementation Agreement. Each Party will provide reasonable advance notice to the other Party of any publicly noticed executive level meetings and stakeholder meetings that involve a discussion of the EIM partnership. If either Party makes material unplanned communications about the Project that otherwise should have been subject to this communication protocol, such Party shall provide notice to the other Party as promptly as possible of the nature and content of such communication. Both Parties may conduct media interviews, have routine discussions and provide standard presentations on the EIM topic without prior notice as long as the content of the discussions does not differ materially from previously coordinated messages.

Notwithstanding the foregoing, this Section 5.1.1 is not intended to amend, modify or otherwise supersede the communication requirements under Section 10 of the Implementation Agreement.

## 6. Appendix A

### 6.1 Change Management Form

Project Change Request		EIM Project	
<b>Change Title:</b>			
<b>Change Type:</b>			
<b>Originator's Name:</b>			
<b>Originator's Position:</b>			
<b>Date Request Initiated:</b>			
<b>Critical Due Date:</b>		<b>Status (Open/Closed):</b>	
<b>Change Details:</b> <i>&lt;Describe the specific change in project scope, schedule or resources. Identify the drivers behind the change.&gt;</i>			
<b>Project Impact:</b> <i>&lt;What is the change impact to the project scope, schedule, or resources? Include details on the impact to project if the change is approved.&gt;</i>			
<b>Risk Analysis:</b> <i>&lt;If change is not executed, what is the risk to project?&gt;</i>			
<b>Required Action:</b> <i>&lt;Identify next steps to complete the requested change.&gt;</i>			
<b>Change to Scheduled Completion Date:</b>			
<b>Required Signatures: Required in all circumstances, even if there is no impact to the budget and/or schedule.</b>			
<b>CAISO Project Manager approval</b>		<b>EIM Entity Project Manager approval</b>	
	<b>Date:</b>		<b>Date:</b>



## 7. Appendix B

### 7.1 Approval Signatures

This EIM Entity Implementation Project Plan has been reviewed and approved by the following:

<b>Responsible Manager:</b>		
Name	Signature	Date
<b>Sponsoring Officer:</b>		
Name	Signature	Date