

Project Plan

Energy Imbalance Market (EIM) Seattle City Light (SCL) Implementation

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1. Project Definition

Energy Imbalance Market (EIM) Seattle City Light (SCL) Implementation

1.1 Project Summary

On January 27, 2017, Seattle City Light (SCL) entered into an Energy Imbalance Market Implementation Agreement with the California ISO (ISO) to join in the ISO'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 the Implementation Agreement reached with SCL that outlines how the CAISO's existing energy market could be expanded to provide real-time services to SCL. 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 SCL. 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 SCL 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

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 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 SCL.

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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

Objective	Criteria	Measure
Achieve benefits described in the Energy Imbalance Market Analysis performed for Seattle City Light	Benefits are in expected range.	Quarterly benefits reports to be approved by SCL and published by the ISO
Achieve grid reliability benefits by balancing supply and demand closer to when electricity is consumed and by allowing system operators real-time visibility across neighboring grids	Identify fluctuations in supply and demand, and then automatically find the best resource to meet current needs across a larger region. This, in turn, optimizes the interconnected high-voltage system as market systems automatically manage congestion on transmission lines.	Successful integration into the EIM with less than 2.5% local power balance infeasibilities in production (internal transmission constraints are not included).
Preserving autonomy by maintaining operational control over generating resources and retain all obligations as a balancing area.	Comply with all regional and national reliability standards. Obligations to provide reliability compliance, ancillary services, physical scheduling rights and bilateral trades do not change with EIM.	Leverage all existing compliance processes and measures.
Build confidence in how SCL's transmission and generation assets will operate in EIM through Market Simulation.	High quality dispatch, pricing and settlements during Market Simulation and Parallel Operation.	High quality dispatch, pricing and settlements during Market Simulation and Parallel Operation. CIDI tickets are promptly resolved. No critical and few high CIDI tickets by the end of Parallel Operations.
Ensure readiness to enter the ISO EIM on April 1, 2018	Fulfill the agreed upon readiness criteria.	Certifications by Executive Sponsor.

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1.4 Project High Level Scope

The scope of this project will enable SCL to meet all program and regulatory requirements associated with the CAISO EIM. The project will include system integration across all affected SCL business and IT organizations. System integration functions include, but are not limited to:

- Business & technical process definition
- Software vendor selection and implementation
- Software and hardware architectural design and integration
- Hardware and network support requirements
- Associated data capture
- Data retention/warehousing
- Reporting/tools development
- Development of operational policies and procedures
- Organizational change management, and
- Training

This section describes some of the Key Deliverables for each Track. Some of these deliverables relate to Milestone Payments described in Section 2.1.

1.4.1 Track 1: Planning and Project Management Track

The EIM Project Management track will ensure project management and oversight coordination between California ISO and SCL teams. The scope for this track will include planning documents, project schedule, 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.

Deliverable	Description	Owner	Target Date
Project Plan	Document used to guide the EIM project execution and control. This document is the Project Plan.	Joint	November 2017
Project Schedule – original baseline	Listing of the EIM project interrelated milestones, activities, and deliverables with intended start and finish dates.	Joint	November 2017
EIM Entity Assessment	Document summarizing key aspects of SCL’s assets and operations to identify impacts and areas for special consideration	Joint	November 2017
IPC Go-Live Support Plan	Document specifying SCL’s plan, resources, responsibilities and approach for transitioning from Parallel Operations to EIM Production.	SCL	November 2018
Checkpoint Meetings – multiple tracks	Working and status meetings to evaluate and facilitate project implementation progress.	Joint	Weekly

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Deliverable	Description	Owner	Target Date
Project Review 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
Executive Progress Review 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.

Deliverable	Description	Owner	Target Date
Completion of SCL Stakeholder Process	Outreach to SCL Stakeholders to discuss SCL Implementation benefits and impacts.	SCL	July 2018
SCL Agreements	Complete and execute all required EIM Agreements (based on SCL's anticipated operations) listed in the SCL EIM Agreements Checklist. Agreements will be executed at different times as specified in the SCL EIM Agreements Checklist but several of the major ones, such as the SC agreements, will have a target of May 2017.	SCL	May 2018
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).	SCL	June 2018
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.	SCL	June 2018
File OATT Changes	Submit changes to the Open Access Transmission Tariff to FERC for approval.	SCL	August 2018

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1.4.3 Track 3: Modeling of Transmission & Generation Assets

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, CAISO and SCL will integrate the SCL 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 SCL. CAISO will merge all of SCL one-line diagram operational displays to keep the two systems alike. In Production, SCL will follow the ISO's process to ensure incremental updates to the SCL Network Model are synchronized between the SCL and CAISO EMS systems.

SCL will work with CAISO and its EMS vendor to export SCL's Network Model to CAISO. This includes exchange of displays, data points, limits, and possible contingencies. SCL will work with CAISO to integrate this data into CAISO's Full Network Model. SCL and CAISO will establish an intercompany communication protocol to be used for transferring real-time data from SCL to CAISO. SCL will work with its EMS vendor to upgrade baseline displays needed for communicating dispatch instructions to generators, SCL transmission operations, and CAISO. SCL will develop internal tools within the EMS to be used for communicating dispatch instructions to generators, SCL transmission operations, and CAISO.

The Master File specifies many of the properties of SCL's generation and inertia resources for the purposes of scheduling, bidding and settlement. SCL 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, SCL will follow the ISO's process to ensure incremental updates to the SCL RDTs are incorporated in the CAISO Master File.

The major deliverables targeted for this effort include:

Deliverable	Description	Owner	Target date
Initial RDT	SCL creates an initial RDT with the planned Participating Resources for review and discussion with CAISO.	SCL	March 2018
Initial Network Model	SCL deliver network model in standard CIM 15 format which can be imported into a CAISO test environment EMS	Joint	March 2018
RDT / Metering / Network Model Alignment	Workshops to ensure alignment on planned operation of SCL assets in EIM and consistency of modeling in Master File, Network Modeling and Metering.	Joint	April 2018
Network Model Validation	Complete validation in CAISO EMS for all SCL SCADA points	Joint	May 2018
Market Simulation RDT	Update the RDT for all Participating and Non-Participating Resources for participating in Market Simulation.	SCL	July 2018
Merge Network Model	Complete export of SCL network model into the CAISO test network model (QAS Model) to facilitate testing in MAP-Stage.	Joint	August 2018
EMS Model Update	EMS model update process deployment	Joint	August 2018

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Deliverable	Description	Owner	Target date
Production Network Model	Integrated CAISO and SCL EMS system deployed in CAISO Production environment	Joint	November 2018

1.4.4 Track 4: System Integration and Testing

This track will oversee a large set of CAISO and SCL 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 SCL and the CAISO. Template not provided by CAISO.	Joint	January 2018
Test Plan	Document defining the approach to SCL'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.	SCL	March 2018
Technical Interface Specifications	Documents specifying detailed interfaces with CAISO systems required for EIM participation. This deliverable is for the 2017 Fall Release versions.	CAISO	April 2018
Test Plan Updates for UAT	Update to Test Plan defining the approach to SCL'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.	SCL	May 2018
System Access	Submit application access request forms for members of SCL organization and receive certificates for participating in joint Market Simulation testing.	SCL	June 2018
Market Simulation Plan	Document specifying the scope, the timeline, and the methodology for conducting the market simulation exercise. SCL will provide input on scenarios and timing.	Joint	June 2018
Parallel Ops Deployment Plan	Document specifying the processes and responsibilities for implementing the new EIM system and activating it in production mode in SCL's production environment.	Independent	December 2018

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Deliverable	Description	Owner	Target Date
CAISO Production Deployment Plan	Timeline for CAISO Production cutover activities and mapping with SCL activities.	Joint	February 2019

1.4.5 Track 5: Metering and Settlements

The CAISO metering department will support SCL'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, SCL will need to capture 5-minute metering data needed for ISO settlement.
- Support configuration, validation, and implementation processes for SCL metering feeds
- Support market simulation
- Conduct Scheduling Coordinator Metering Entity (SCME) training for SCL

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 SCL to develop their Settlements system. The SCL 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 charges to third party if a third party elects to participate.

Deliverable	Description	Owner	Target date
Metering Questionnaire	A CAISO provided questionnaire about SCL's current metering infrastructure and plans for metering in EIM.	SCL	August 2017
Physical Meter Assessment	SCL planned approach for deployment of revenue quality meters and other measuring devices for each generation resource and intertie point. SCL 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	November 2017
Meter Replacement / Configuration Schedule	A project schedule showing the activities for SCL's Meter replacement project.	SCL	December 2017
Settlement Configuration Guides	Documents specifying detailed charge codes for EIM participation. This deliverable is for the 2017 Fall Release versions.	CAISO	April 2018

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1.4.6 Track 6: Operations Training and Readiness

This track is responsible to specify, design and implementation 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 deliverables associated with these EIM business aspects include:

Deliverable	Description	Owner	Target date
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	November 2017
CAISO Market CBTs	CAISO creates and makes available Computer Based Training (CBT) courses for the courses described in the EIM Training Catalog.	CAISO	January 2018
Touch Point Mapping	Workshop to review Market Timeline and map out the responsibilities and business process touchpoints between SCL and CAISO. Swimlane diagram.	Joint	January 2018
CAISO Operating Procedures	CAISO provides the planned Go-Live Operating Procedure documents to SCL.	Joint	June 2018
Train the Trainer	Hands-on Training Begins for SMEs who will participate in Market Simulation and SCL trainers.	Joint	October 2018
End User Training Begins	Begin EIM End User training for SCL (SCL SMEs and trainers to deliver training with ISO support)	Joint	December 2018
End User Training Complete	Certification that all SCL end users have completed the 100, 200 and 300 level training courses as well as training on CAISO and SCL Operating Procedures and are ready to being Parallel Operations.	SCL	January 2019
SCL Operating Procedures	Document SCL Operating Procedures.	SCL	January 2019
Readiness Criteria	Certification that the Readiness Criteria for EIM Go-Live have been satisfied.	Joint	March 2019

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2. Project Budget and Milestones

2.1 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
Payment Milestone 1 – FERC Approval of EIM Implementation Agreement	December 2017	\$52,000
Payment Milestone 2 – Validation of Integrated Full Network Model	July 2018	\$52,000
Payment Milestone 3 – Begin Connectivity Testing	August 2018	\$52,000
Payment Milestone 4 – Begin Structured Market Simulation	December 2018	\$52,000
Payment Milestone 5 – Begin Parallel Operations	February 1, 2019	\$52,000
Payment Milestone 6 – EIM Go-Live	April 1, 2019	\$50,000
TOTAL BUDGET:		\$310,000

2.2 Project Milestones

This section describes the major Milestones for the project. Some of these Milestones are associated with a Payment listed in Section 2.1.

Project Scope and Milestones	Milestone Date	Completion Criteria
Payment Milestone 1 – This milestone is completed when the EIM Implementation Agreement has been made effective in accordance with Section 1 of the Agreement; and SCL and the CAISO have taken material steps to engage regarding the Implementation Agreement subject and pursuant to Section 3(c). The tasks associated with this Milestone are part of Track 2.	November 2017	Publication of FERC Order.
Detailed Project Management Plan – The Parties will develop a project management plan (this document) 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. The tasks associated with this Milestone are part of Track 1.	December 2017	Approval of Project Plan and Schedule by SCL and CAISO management identified in Appendix B.
SCL Network Model Import – Export of the SCL Full Network Model in CIM 15 format and proof of concept of export/import of EMS data and Network Model into the CAISO ISO test environment. The tasks associated with this Milestone are part of Track 3.	July 2018	Successful export of SCL Network Model and import of that model into the ISO Full Network Model.

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Project Scope and Milestones	Milestone Date	Completion Criteria
Payment Milestone 2 – This milestone is completed upon modeling SCL into the ISO Full Network Model in the EMS in a non-production test environment using the ISO’s network and resource modeling process and the complete validation of all SCADA points from SCL; completion of testing of the new Full Network Model; and validation of the Outage and State Estimator applications with the SCL Network Model included. The tasks associated with this Milestone are part of Track 3.	July 2018	Validation of Network Model with no issues and promotion of Network Model to non-production test environment.
System Implementation Program Improvements – SCL completion of system requirements and software design, the execution of necessary software vendor contracts; the provision by the CAISO of technical interface specifications, configuration guides and other related materials; completion of implementation of EIM software and interfaces by SCL. The tasks associated with this Milestone are primarily part of SCL’s internal project activities and Track 4 and Track 6.	August 2018	SCL Software and Interfaces are ready for Day-In-The-Life (DITL)
Complete Construction, Testing and Training in Preparation for Market Simulation – This task includes IT infrastructure upgrades, security testing, training simulators, and functional testing. The tasks associated with this Milestone are primarily part of SCL’s internal project activities and Track 4 and Track 6.	August 2018	SCL and CAISO systems ready for Structure Market Simulation.
Payment Milestone 3 – CAISO makes available the Market Simulation (“MAP Stage”) environment for connectivity testing prior to the start of Market Simulation; SCL Network Model and EMS functionality incorporated into CAISO Full Network Model and EMS in the Market Simulation Environment; Market Simulation for the 2017 Fall Release is stable such that SCL testing can begin. The tasks associated with this Milestone are part of Track 4.	August 2018	Successful SCL Connectivity Testing in MAP Stage
Begin Connectivity Testing – Interface testing with minimum data requirements and functional integration testing. ISO will make the test environment available for SCL connectivity testing prior to the delivery date assuming SCL has provided all requisite data and non-production system availability does not conflict with ISO production systems.	August 2018	SCL access to CAISO MAP-Stage environment with all relevant EIM system interfaces for connectivity.
Complete Construction, Testing and Training – Ready to Begin Market Simulation – Completion of the IT infrastructure upgrades, security testing, training, simulators, and functional testing. SCL and CAISO are ready to begin EIM market simulation which allows SCL 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 simulated market results. Includes	November 2018	SCL and CAISO have independently completed EIM system design, development and testing and are ready to participate in joint testing.

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Project Scope and Milestones	Milestone Date	Completion Criteria
the creation and approval of a Market Simulation plan. The tasks associated with this Milestone are part of Track 4.		
Begin 'Day in the Life' Scenario Testing – Testing focuses on ensuring all basic EIM functions can be performed under normal conditions and SCL and CAISO software applications are performing correctly under normal conditions. Transactions use a single recurring Operating Day. DIL is executed during normal business hours but requires continuous data feeds from SCL to keep the Market solving normally 24x7. The tasks associated with this Milestone are part of Track 4.	October 2018	SCL access to CAISO MAP-Stage environment with all relevant EIM system interfaces for the purpose of DIL
Payment Milestone 4 – Begin Structured Market Simulation – Testing focuses on specific scenarios to ensure SCL and CAISO software applications are performing correctly and simulated settlements are correct under specific conditions (e.g. manual dispatches, mitigation, contingency events). Scenarios will be specified in the Market Simulation Plan. Transactions use a single recurring Operating Day. Structure Simulation is executed during normal business hours but requires continuous data feeds from SCL to keep the Market solving normally 24x7. The tasks associated with this Milestone are part of Track 4.	December 2018	SCL access to CAISO MAP-Stage environment with all relevant EIM system interfaces
Payment Milestone 5 – Activate Parallel Operations to practice EIM activities with production grade systems, integration, market processes and operating procedures. Confirm compliance with the EIM readiness criteria set forth in the CAISO tariff. Parallel Operations is 24x7 and uses actual Production data (e.g. load forecast, VER forecast).	February 1, 2019	Successful Start of Parallel Operations in the CAISO Stage Environment
Readiness Criteria Achieved – Completion of all resource registration, new and updated operating procedures, new and updated business practices, execution of all service agreements, completion of the policy and tariff stakeholder processes, applicable board approvals, the filing and acceptance of tariff changes with FERC, and the development of new and updated Business Practice Manuals.	March 2019	. Readiness Criteria Achieved.
Payment Milestone 6 – Complete upon the first financially binding production energy imbalance market trade date. The SCL and the ISO may elect to perform a non-binding parallel production prior to the first binding production trade date.	April 1, 2019	Completion of first financially binding Operating Date.

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3. Project Approach

3.1 Decision Making and Escalation

The CAISO and SCL 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 towards 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.

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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	
Steve Berberich	CEO
Petar Ristanovic	EIM Executive Sponsor, VP Technology
Mark Rothleder	VP, Market Quality and Renewable Integration
Eric Schmitt	VP, Operations

SCL - * indicates primary attendees	
Larry Weis	General Manager and CEO
Michael Jones	Officer and Executive Sponsor
Mike Haynes	Generation Operations and Engineering Officer

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

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Leads and provide guidance and facilitate resolution. It will also facilitate communications across departments during the execution of the project.

CAISO - * indicates primary attendees	
Petar Ristanovic	EIM Executive Sponsor, VP Technology
Khaled Abdul-Rahman	Executive Director, Power Systems and Smart Grid Technology Development
Nancy Traweek	Executive Director, System Operations
John Anders	Sr. Counsel
Janet Morris	Director, Project Management Office
TBD	Project Manager

SCL - * indicates primary attendees	
Michael Jones	Officer and Executive Sponsor
Mike Haynes	Generation Operations and Engineering Officer
Wayne Morter	Power Management Director
Pawel Krupa	System Operations Director
Raman Vishwanathan	Risk Oversight Director
Robert Cromwell	Regional Affairs and Contracts Director
Steve Lightfoot	Power Systems Automation Manager
Michael Watkins	System Operations Chief Dispatcher Generation and Transmission
Charles Freeman	EIM Implementation Business Manager
Robert Mahoney	Project Manager

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.

CAISO - * indicates primary attendees	
Don Fuller	Director, Strategic Alliances
John Anders	Sr. Counsel

SCL - * indicates primary attendees	
Robert Cromwell	Regional Affairs and Contracts Director
Charles Freeman	EIM Implementation Business Manager

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3.3 Project Schedule Management

The CAISO and SCL 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 as specified in Section 1.4.1; 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.

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 CAISO and SCL 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 SCL 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>.

3.5 Change Management

Change requests may be initiated by the CAISO and/or SCL 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 SCL 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 SCL teams.

If a Change Request is approved, it will be signed by the CAISO and SCL 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).

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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 SCL project teams and selected stakeholders will assess risk at the beginning of each major phase in the project life-cycle 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 SCL 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 SCL will identify, assess and track project risks using the risk register template shown below. Project risks will be jointly reviewed at the monthly EIM Project Delivery Leadership Team status meeting.

Risk ID	Author	Date registered	Description	Risk Owner	Probability	Impact	Countermeasures	Status
					how likely it is that this risk will occur. Low (<30%), Medium (31-70%) High (>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. Low Medium High		Active: risk has been triggered (has occurred) and is being actively managed Closed: a risk that was opened erroneously and is not valid Resolved: a risk that occurred and has been completely addressed Future: 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 SCL in the shared secured site.

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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 SCL will identify, assess and track project issues using the issue register template shown below. Project issues will be jointly reviewed at the monthly EIM Project Delivery Leadership Team 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 SCL in the shared secured site.

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5. Communication Management Plan

5.1.1 Communications Protocol

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 containing messages that have not been previously agreed upon by both Parties; provided that nothing herein shall prevent, limit, or delay either Party from making any disclosure required by applicable law or regulation or as may otherwise may be 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.

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6. Appendix A

6.1 Change Management Form

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

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7. Appendix B

7.1 Approval Signatures

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

Responsible Manager:

Name	Signature	Date
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Sponsoring Officer:

Name	Signature	Date
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