

Stakeholder Comments on 2014 Budget and GMC meeting June 18, 2013

PG&E comment

The CAISO has indicated that it plans to begin meeting with Stakeholders in the Spring of 2014 on a cost-of-service study that will support its 2015, and beyond, GMC rates and rate structure. During the June 18 Budget & GMC Stakeholder Meeting, the CAISO also stated that:

- Its cost-of-service study will address the costs, both start-up and administrative, associated with the expansion of the energy imbalance market (EIM) to all CAISO market participants;
- Although it views the potential for cost overruns associated with the EIM Implementation Agreement with PacifiCorp to be low, should over-runs occur, the CAISO would first approach PacifiCorp in an effort to collect any costs beyond the \$2.1 million budgeted amount;
- If over-runs could not be collected from PacifiCorp, the ISO would fund the over-run amount through its capital budget recovered from ISO market participants through the GMC's Market Services and System Operations charges.

In order to better ensure that CAISO market participants will receive a net benefit from their EIM-related GMC charges and are aware of cost overruns that they may have to bear, PG&E proposes the following:

- PG&E recommends the CAISO start now to develop and use accounting mechanisms to track all costs related to development and operation of the EIM. This includes the salary and overhead of internal CAISO personnel working on the EIM.
- PG&E also proposes that the CAISO submit a progress report within 30 days after each of the milestone dates identified in the PacifiCorp EIM Implementation Agreement (December 6, 2013; April 8, 2014; July 8, 2014; October 1, 2014) detailing the status of the project, the costs incurred to date (including internal CAISO labor costs) and the estimated remaining costs to completion. These reports should be filed on these four dates regardless of whether the CAISO has been able to achieve the associated milestones as anticipated in the PacifiCorp Implementation Agreement.

ISO response

The EIM provides reliability and economic benefits to both existing market participants and new EIM Entities by utilizing the ISO 15-minute market and real-time dispatch. The ISO EIM model offers the following features:

- a) It leverages the ISO's existing five-minute real-time market and dispatch, along with its pending addition of a real-time 15-minute market, so resources within each EIM Entity BAA can be economically and automatically dispatched in real time.
- b) It enhances reliability through real-time visibility and situational awareness of resources and transmission across the ISO and EIM Entity footprints.
- c) It captures the benefits of geographical diversity of load and resources.
- d) It potentially reduces load following capacity requirements by accessing a wider portfolio of resources to ensure electricity is available where and when it is needed
- e) The additional revenues will lower the ISO administrative costs passed through to ISO market participants.

With respect to start-up costs and administrative charges:

- a) The ISO will honor the costs established in the agreement with PacifiCorp, and
- b) The cost-of-service study will be used to adjust charges to future EIM entrants, as appropriate.

Three categories of costs are associated with implementation of the energy imbalance market (EIM). The following discussion describes the three categories: EIM entity start-up costs, ISO EIM start-up costs and EIM administrative costs.

ISO response

EIM Entity Start-Up Costs

The ISO has presented an initial fee of \$0.03 times the total annual energy usage of the entity joining the EIM. The initial rate was determined by dividing the total projected cost to implement EIM for the entire Western Electricity Coordinating Council (WECC) by the total annual energy usage of WECC, less the ISO energy usage. The start-up fee covers the capital and O&M costs associated with setting up the EIM for the EIM Entity. The ISO will not incur many of these costs unless other entities join the EIM. For example, the majority of costs are associated with software licenses that will only be purchased if needed. Revenue collected from EIM entities will be accounted for in the ISO capital budget process. There will not be any incremental additional EIM entity start-up costs even if no other entities decide to join the EIM. Below are the ISO's estimated costs of configuring its real-time energy market to function as an energy imbalance market available to all balancing authority areas in WECC that may choose to participate (in thousands of dollars):

Licenses	\$10,800
Data storage and hardware upgrades	2,500
Testing	1,500
EMS system improvements	1,000
Production software modifications	1,000
Network configuration, mapping and integration	1,000
Performance tuning, training and readiness and project management	500
Total	\$18,300

Each EIM entity must pay its share of these costs prior to joining the EIM. The costs are allocated to each EIM entity based on their total load, which translates to a PacifiCorp share of \$2.1 million (\$0.03 x 68.7 million MWh of load). PacifiCorp will make milestone payments consistent with the implementation agreement. The implementation agreement was approved as filed by FERC with no requirements for status reports.

ISO EIM Start Up Costs

The ISO will incur one-time start-up costs associated with implementing EIM, much as it does with any other market enhancement. The capital budget is currently being developed and is anticipated to come in under \$2 million for full EIM implementation. A broad category of stakeholders will realize benefits associated with the ISO's implementation of an energy imbalance market. The ISO plans to leverage other efforts already underway, such as the Order 764 compliance and the full network model expansion project, to implement the EIM in the most cost-effective manner. All ISO EIM start-up costs will be accounted for within the existing approved budget separate from the Order 764 and full network model costs.

EIM Administrative Charges

The ISO will include an EIM administrative rate in its tariff filing of the market design. These rates will be in effect for October through December 2014. The current ISO Grid Management Charge (GMC) annual revenue requirement and cost of service study was filed and approved by FERC to be effective from January 1, 2012 through December 31, 2014. The ISO will commence a stakeholder process to update the cost of service study and annual revenue requirement, which will be filed with FERC in 2014 to become effective in 2015 for both the ISO's balancing authority area and the EIM.

ISO response

The ISO derived an EIM administrative charge by evaluating the components of its existing GMC and determining what aspects of the services provided are attributable to EIM functions. The 19 cents represents the amount all users of these real-time services pay – it is not a new charge but rather a way to evaluate the actual costs of running the elements of the ISO market that the ISO will be offering as EIM functions. Because the rate is driven by the volume for the entire market, including California, that gets the services that the EIM participants will be purchasing, the volume of participation by PacifiCorp does not affect the overall rate. The \$96 million figure was derived from data filed with FERC as part of the ISO 2012 GMC restructuring – it is the cost of all real time services provided by the ISO, and the 500TWh is the allocated portion of real-time volumes. As noted above, the ISO will be updating the studies for its rate case in 2014.

The explanation below walks through how the ISO derived the EIM-specific rate for the services that are a subset of the full market services provided by the ISO. Currently, the ISO's overall administrative charge is made up of three components or services: Market Services, System Operations and CRR Services. Market services charge encompasses all activities in issuing bids to schedules in both the Day Ahead Market and Real Time Market. The system operations charge encompass all activities in dispatching energy on the grid and balancing area activities such as transmission planning. The third component, CRR services encompasses activities surrounding Congestion Revenue Rights. The ISO has used activity based accounting to identify and capture costs based on significant activities, and then allocated those activities to the appropriate service bucket. The cost of service study supporting the current GMC structure was filed and approved with FERC to be effective 2012.

Conceptually EIM is made up of two components (1) the real-time market portion of the Market Services and (2) the real-time dispatch portion of System Operations. CRR Services are not applicable to the EIM. To determine an EIM rate the cost of service study was expanded to break down Market Service and System Operations into their components and then combine real-time market and real-time dispatch to derive an EIM administrative rate. After performing this analysis for EIM the allocations came out as follows:

Market Services was made up of 63% real-time market and 37% day ahead market
System Operations was made up of 48% real-time dispatch and 52% balancing area services
CRR Services is not applicable

The total estimated EIM cost of \$96M was divided by the allocated volume of 500 TWh yielded a rate of \$0.19 per MWh. Using the 2012 rates and allocation from the 2012 cost of service study result in the following:

<u>Market Services Rate</u>	<u>9 cents per MWh</u>
Day-ahead market	3 cents per MWh
Real-time market	6 cents per MWh
 <u>Systems Operations Rate</u>	 <u>27 cents per MWh</u>
Real-time dispatch	13 cents per MWh
Balancing area services	14 cents per MWh

ISO response

Combining the real-time components for EIM

Real-time market	6 cents per MWh
<u>Real-time dispatch</u>	<u>13 cents per MWh</u>
Total EIM	19 cents per MWh

The volume the rate is applied to is the gross imbalance energy of both load and generation. There is a minimum volume set at 5% of the gross generation and 5% of the gross load. This EIM administrative cost covers staff and portions of ISO systems used to support EIM functionality. EIM revenue will be applied to the ISO GMC components which reduce the costs that need to be recovered from ISO market participants.

The ISO will commence a stakeholder process to update the EIM cost of service study and annual revenue requirement, which will be filed with FERC in 2014 to become effective in 2015. The process will be supported by a cost of service study using the ISO's activity based costing methodology. The cost of service study will break down Market Service and System Operations into their components, and then combine real-time market and real-time dispatch, to derive the EIM administrative rate.

Frequently Asked Questions

- *What happens if only PacifiCorp joins the EIM?* There will be no further incremental costs, they will pay their ongoing costs, and the overall benefits are expected to more than cover these costs.
- *What are the ISO O&M costs associated with EIM start-up?* The ISO plans to manage this project within current budget.
- *What other projects will be deferred as a result of EIM implementation?* The ISO anticipates the impact on other projects to be minimal, particularly given the need to comply with Order 764 and the recently announced full network model expansion project and the likelihood other project delays in any event.
- *Who paid for the EIM benefits study?* The study was a joint effort with the ISO paying the costs of the outside consultant.