

# Memorandum

**To:** ISO Board of Governors

**From:** Keith Casey, Vice President, Market & Infrastructure Development

**Date:** January 2, 2015

**Re:** **Decision on EIM transition period proposal**

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***This memorandum requires Board action.***

## EXECUTIVE SUMMARY

On November 13, 2014, the ISO requested that FERC grant a 90-day waiver to allow the prices for energy in the energy imbalance market (EIM) entity's balancing authority area to be based on the marginal economic bid instead of the \$1,000/MWh pricing parameter. The ISO requested the waiver because during the initial implementation of the energy imbalance market, the market encountered transitional conditions that restricted the timing and amount of capacity available through the market clearing process. This caused the transmission and system balance constraints to bind more frequently than expected, producing atypically high prices in the fifteen-minute and five-minute markets in the EIM entity's balancing authority area. FERC granted the waiver on December 1, 2014. In doing so, FERC, however, strongly encouraged the ISO to file any tariff revisions that may be necessary sufficiently before the waiver expires, to avoid any subsequent financial impacts to market participants.

Management believes that a transition period is needed beyond the expiration of the tariff waiver. Management proposes to file the transition period design described below with FERC prior to the waiver expiring and to apply it to all new EIM entities including PacifiCorp. Management proposes a twelve month transition period which will price energy at the marginal economic bid instead of the \$1,000/MWh pricing parameter consistent with the currently approved 90-day waiver.

***Moved, that the ISO Board of Governors approves the EIM transition period proposal, as described in the memorandum dated January 2, 2015; and***

***Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.***

## **DISCUSSION AND ANALYSIS**

### ***Background***

On November 13, 2014, the ISO requested that FERC grant a 90-day waiver of the applicability of section 27.4.3.2 and the second sentence of section 27.4.3.4 of the ISO tariff for constraints within the balancing authority areas of PacifiCorp or that affect EIM transfers between balancing authority areas. These tariff provisions establish the price for energy when the ISO's market clearing software must resort to relaxing modeled constraints, such as transmission or system balance constraints, to clear the market. The requested waiver prices energy in the EIM entity's balancing authority area based on the marginal economic bid instead of the \$1,000/MWh pricing parameter that would normally apply in such situations.

The ISO requested the waiver because during the initial implementation of the energy imbalance market, transitional conditions were encountered that restricted the timing and amount of capacity available through the market clearing process. This caused the transmission and system balance constraints to bind more frequently than expected, producing atypically high prices in the fifteen-minute and five-minute markets in the EIM entity's balancing authority area. The ISO determined that system conditions, operations processes, the current level of EIM participating resources, and the new operating environment are complicating the timing of, and restricting the amount of, effective economic bids necessary to relieve the constraints. These anomalies are temporary as they are associated with the initial startup and transition period of EIM operations, and do not reflect actual physical conditions on the system in all cases.

FERC granted the waiver on December 1, 2014, but in doing so strongly encouraged the ISO to file any tariff revisions that might be necessary beyond the term of the waiver sufficiently before the waiver expires to avoid any subsequent financial impacts to market participants. Although progress has been made during the waiver period in resolving known issues, since the 90-day period has not yet concluded, it is not yet known if all issues will be sufficiently addressed, and new issues could still arise. Management thus believes that a transition period is needed beyond the approved tariff waiver. Management proposes to file the transition period design described below with FERC prior to the waiver expiring and to apply it to all new EIM entities and PacifiCorp.

### ***Design elements of transition period***

Management proposes a twelve month transition period for new EIM entities to allow a new EIM entity to gain sufficient operational experience across all seasons. During the stakeholder process, Management originally planned for the transition period to consist of the following two measures:

- The market will price energy in the EIM entity's balancing authority area based on the marginal economic bid instead of the \$1,000/MWh pricing parameter

when modeled constraints must be relaxed, consistent with the December 1, 2014 approved tariff waiver.<sup>1</sup>

- The energy bid cap<sup>2</sup> for EIM participating resources, including imports/exports on EIM external intertie scheduling points economically bidding in the fifteen-minute market, will start at \$250/MWh and gradually increase over the year as follows:

Months 1 – 6	\$250/MWh
Months 7 – 9	\$500/MWh
Months 10 – 12	\$750/MWh
Beyond transition period	\$1000/MWh

Management believes using the marginal economic bid for constraint relaxation will mitigate anomalous pricing that may result from the EIM entity gaining operational experience under the energy imbalance market. This feature will prevent inappropriately high prices that do not reflect actual energy scarcity, but would rather reflect artificial market scarcity, because new EIM entities are still implementing operational and business process improvements to make resources available to the market.

Based upon stakeholder comments, Management will not propose the graduated energy bid caps within the EIM entity balancing authority area in the tariff filing with FERC prior to expiration of the waiver. Management believes that stakeholder concerns regarding potential unintended consequences from different energy bid caps between balancing authority areas in the EIM footprint can be addressed through additional stakeholder discussion in the EIM year 1 enhancements stakeholder initiative.

Management supports greater economic participation within the EIM entity's balancing authority area, including 15-minute imports and exports on EIM external intertie scheduling points (i.e. interties connecting an EIM entity's balancing authority area to a non-EIM balancing authority area). This will provide additional capacity that would allow the market to clear without triggering constraint violations. In addition, Management believes that the graduated bid cap, or other measures, may be needed during the transition period to address situations where an unmitigated bid (e.g., \$1,000/MWh) might be the marginal economic bid. This scenario could undermine the effectiveness of the EIM transition period proposal to use the marginal economic bid to set the price when transmission or supply constraints are binding.

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<sup>1</sup> To effectuate this price discovery, it is also necessary to adjust the penalty price for the flexible ramping constraint parameter for the EIM balancing authority area in order to allow the market software to discover the marginal energy bid price that will set the locational marginal price, to avoid otherwise setting the price at the constraint's parameter.

<sup>2</sup> In the EIM balancing authority area the energy bid plus the greenhouse gas bid adder must be lower than or equal to the bid cap. This bidding rule still applies during the EIM transition period.

## STAKEHOLDER PROCESS

The stakeholder process was accelerated to be responsive to FERC's directive that any tariff amendment for a longer transition period be filed prior to the expiration of the 90-day waiver. Nonetheless, Management provided a stakeholder process for this proposal pursuant to the following timeline:

<b>Date</b>	<b>Activity</b>
November 10, 2014	Posted EIM year 1 enhancements issue paper/straw proposal
November 14, 2014	Filed request for tariff waiver with FERC
November 17, 2014	Held EIM year 1 enhancements stakeholder meeting and communicated that Management would propose a permanent transition period
December 1, 2014	FERC Order approving tariff waiver received
December 15, 2014	First informational report required in waiver filed with FERC
December 15, 2014	Posted EIM transition period draft final proposal
December 19, 2014	Held EIM transition period stakeholder conference call
December 31, 2014	Final date for stakeholder written comments on EIM transition period draft final
January 2, 2015	Posted EIM transition period board memo
January 5, 2015	Special Board of Governors general session teleconference for decision
January 9, 2015	If approved by Board of Governors, file EIM transition period tariff language with FERC
February 14, 2015	Expiration of 90-day waiver approved by FERC

## POSITIONS OF THE PARTIES

Stakeholders acknowledge the significant learning curve for new EIM entities when implementing an energy imbalance market to manage its balancing authority area. Stakeholders generally support providing PacifiCorp with additional time beyond the currently approved waiver to resolve identified issues, but disagree as to whether the additional time must be accomplished through an ISO tariff filing. Stakeholders believe

that the current EIM year 1 enhancements stakeholder initiative is an appropriate venue to consider, if appropriate, the long term design of a transition period for other EIM entities. Stakeholders express concern for unintended market inefficiencies that may occur with the graduated energy bid caps. The Department of Market Monitoring shares this concern and believes the graduated energy bid cap proposal would benefit from additional time and consideration. In response to stakeholder comments, Management has removed the graduated energy bid caps from the proposal which we will file with FERC prior to expiration of the tariff waiver. The graduated energy bid cap proposal will be discussed further in the current EIM year 1 enhancements stakeholder initiative.

**Issue 1** – The EIM transition period should not apply to all new EIM entities. A long term design, if appropriate, should be considered in a comprehensive stakeholder initiative.

**Management Response** – In FERC’s order approving the 90-day tariff waiver for PacifiCorp, FERC strongly encouraged the ISO to propose a long term transition period if the waiver duration was insufficient. Management believes a tariff amendment implementing an EIM transition period is responsive to FERC’s directive and is preferable to requesting additional extensions on an ad hoc basis. Management is supportive of discussing potential enhancements or modifications to the EIM transition period in the EIM year 1 enhancements stakeholder initiative. This initiative currently has two phases. Phase 1 items are planned for Board decision in March 2015 and will be implemented in Fall 2015. Phase 2 will begin after six months operational experience of the energy imbalance market. The EIM transition period design may benefit from the observations during this six month period.

**Issue 2** – The twelve month duration is too long. Some stakeholders have suggested the extended transition period should not be fixed at 12 months but should be informed by information about how well the transitional issues are being addressed.

**Management Response** – The twelve month duration allows the EIM entity sufficient operational experience during all seasons. Operational challenges differ between seasons and may require different operational or business process changes that cannot be identified until actual system conditions change. In order to provide additional transparency to market participants, upon expiration of the tariff waiver, Management will continue the reporting requirements ordered by FERC through the entire EIM transition period on a quarterly basis.

**Issue 3** – The graduated bid caps may give rise to unintended market inefficiencies because different pricing rules will apply in different balancing authority areas participating in the energy imbalance market.

**Management Response** – In response to the stakeholder comments, the graduated bid caps will be discussed further in the EIM year 1 enhancements stakeholder initiative. As Management has discussed in that initiative, economic bidding on EIM external

intertie schedule points would increase market liquidity and allow load serving entities additional opportunities to hedge imbalance charges within the EIM entity balancing authority area. During this initiative, Management will decide if economic participation on EIM external intertie scheduling points remains at the discretion of the EIM entity and consider additional measure, such as gradually increasing bid caps, necessary to maintain the effectiveness of using the marginal economic bid to relax constraints within the EIM entity balancing authority area as proposed in the twelve-month EIM transition period.

## **CONCLUSION**

Management requests Board approval of the EIM transition period proposal. The proposed EIM transition period will mitigate unwarranted price volatility as new EIM entities gain sufficient operational experience under the new market based paradigm for all seasons of the year. This transition period proposal will apply to all new EIM entities and will apply to PacifiCorp based on its November 1, 2014 deployment date. Management will review additional measures, such as the graduated energy bid caps, in the EIM year 1 enhancements stakeholder initiative.