



# Memorandum

**To:** ISO Board of Governors

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

**Date:** October 28, 2015

**Re:** **Decision on EIM year 1 enhancements phase 2**

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*This memorandum requires Board action.*

## EXECUTIVE SUMMARY

This memorandum presents Management's proposed tariff changes resulting from phase 2 of the energy imbalance market (EIM) year 1 enhancements policy initiative. This initiative addressed several issues including design changes to comply with a FERC order, topics the ISO committed to address during the original EIM design stakeholder process, and other design elements identified through the process of integrating PacifiCorp and NV Energy into the EIM.

This initiative is structured in two phases. Phase 1 addressed design changes to be implemented in the Fall 2015 software release in support of NV Energy joining the EIM. These changes were approved by the Board in March and approved by FERC on October 26, 2015. Phase 2 addresses items that would benefit from having six months of operational experience under the EIM to inform their resolution and items that were deferred from phase 1 to allow additional stakeholder discussion.

Having completed phase 2 of the stakeholder initiative, Management proposes to:

- Modify the allocation of congestion cost credits resulting from transfers of electricity between EIM entities,
- Modify the market power mitigation process to always include EIM transfer limits,
- Specify how EIM entities include imports and exports in their base schedules, and
- Allow the ISO to provide outage information on behalf of an EIM entity to the regional reliability coordinator.

These proposed design changes build upon the current EIM design and will support additional balancing authorities joining the EIM in the future.

***Moved, that the ISO Board of Governors approves phase 2 of the energy imbalance market year 1 enhancements proposal, as described in the memorandum dated October 28, 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**

Phase 2 of the EIM year 1 enhancements initiative initially included various topics that Management determined were not necessary at this time but would continue to be reviewed. Stakeholders agreed that Management should monitor several items to determine if they should be addressed in a future policy initiative, including an EIM-wide transmission rate, flow entitlements for forward schedules, and compensation for third parties making transmission capacity available for EIM. In addition, Management will address other items in separate currently planned stakeholder initiatives, including long-term greenhouse gas design changes and economic bidding rules on EIM external interties. The specific issues addressed in the phase 2 proposal for which Management is seeking Board approval are discussed below.

### ***Allocation of congestion credits from EIM transfers***

In the case that (1) an EIM transfer limit for electricity transfers over an intertie is less than the intertie's transmission limit and (2) the intertie also connects with a non-EIM balancing area, Management proposes to allocate all of the congestion cost credits resulting from the EIM transfer limit to the EIM entity that provides the transmission to the intertie used for the transfer. Currently these congestion credits are divided pro-rata between each of the EIM entities on either side of the transfer path.

The ISO market enforces intertie transmission limits on interchange schedules. Similarly, the real-time market enforces "EIM transfer limits," which represent the amount of transmission an EIM entity has made available for electricity transfers into and out of the EIM entity.

Transmission limits in the ISO market result in congestion credits and costs that are distributed and collected, respectively, through an uplift account. Congestion credits occur because a congested transmission path results in a lower energy price paid to supply on the upstream side of the limit than the energy price paid by downstream load, resulting in excess money to be distributed. The ISO market models these transmission paths through intertie transmission limits, EIM transfer limits, and balancing area internal transmission limits.

An EIM design principle is that congestion costs and credits attributable to a balancing area's internal transmission limits are allocated to the balancing area in which the internal transmission constraint is located. Similarly under the ISO's market settlement, congestion credits resulting from transmission limits on interties connecting an EIM balancing area to a non-EIM balancing area are allocated to the EIM balancing area to which the intertie is connected.

The current design shares congestion credits attributable to EIM transfer limits equally between the two EIM balancing areas on either side of the transfer limit. This is because the transmission to which the EIM transfer limit applies is effectively shared by both balancing areas. Management proposes to continue this congestion credit sharing in the case that the EIM transfer limit is the same as the corresponding intertie transmission limit because only EIM transfers can go across the intertie.

In the case that (1) an EIM transfer limit over an intertie is less than the intertie's transmission limit and (2) the intertie also connects with a non-EIM balancing area, Management proposes to continue to allocate the congestion credits resulting from the intertie transmission limit to the EIM balancing area that controls the intertie. However, Management proposes to allocate all of the congestion cost credits resulting from the EIM transfer limit to the EIM entity that provides the transmission used to connect the EIM balancing area to the intertie rather than maintain the current practice of sharing these congestion cost credits with both balancing areas.

Management proposes this change because in the above-described situation, EIM transfers compete in the market with non-EIM imports and exports for the same intertie capacity. Congestion credits arising from the intertie transmission limit due to the EIM transfer limit are indistinguishable from those arising from other imports or exports and should be allocated on the same basis to the balancing area controlling the intertie. Furthermore, the transmission represented by the EIM transfer limit is not reciprocally shared by the two EIM balancing areas on either side in the same way it is shared when the EIM transfers do not compete with other non-EIM imports and exports. Consequently, the congestion credits attributed to the EIM transfer limits should be allocated the same as congestion credits and costs due to internal transmission limits, which is to the EIM entity making the transmission available to the intertie.

### ***Market power mitigation***

During the initial EIM enhancements initiated just prior to PacifiCorp implementation, the ISO committed to explore additional triggers for the inclusion of EIM transfer constraints in the ISO's market power mitigation process. However, based on the stakeholder process, Management proposes that the EIM transfer limits into an EIM balancing authority area be treated the same as any other internal constraint with regard to market power mitigation. As a result, the power balancing constraint for each EIM balancing authority will be tested for competitiveness whenever the constraint is binding. This will ensure consistent treatment of all constraints in the EIM footprint. It will also obviate the need for a specific structural competitiveness assessment by the Department of Market

Monitoring and authorization from FERC to include the EIM transfer limit in the market power mitigation. The assessments performed with respect to PacifiCorp and NV Energy both support application of market power mitigation of EIM transfer limits. Management expects similar findings with respect to future EIM entities.

### ***Tagging of imports and exports in base schedules***

During discussions with PacifiCorp and NV Energy, Management determined that the ISO needs to specify which e-tags can be used to establish base schedules for EIM imports and exports. The rules for base schedule submission cannot be at the discretion of the EIM entity. A base schedule import for one EIM balancing authority area could also be a base schedule export for another EIM balancing authority area. Therefore, Management proposes to require all EIM entities to accept approved, pending, and adjusted e-tags as a valid means to communicate an import or export base schedule to an EIM entity for purposes of imbalance settlement. This will ensure accurate and consistent information regarding transmission capacity available for EIM transfers.

### ***Providing outage information to reliability coordinator***

Currently, an EIM entity must use the ISO's outage management system to communicate approved outages within its balancing authority area. In the WECC, each balancing authority is responsible for submitting outage information to the regional reliability coordinator's outage application. It is common practice for smaller balancing authorities to submit outage information directly into the regional reliability coordinator's outage application system. Allowing the ISO to pass through to the regional reliability coordinator the same information it receives from the EIM entity eliminates the need for a separate outage application designed by the balancing authority. Management proposes allowing EIM entities to elect to have the ISO submit outage information the EIM entity has entered into the ISO's outage management system to the regional reliability coordinator. This proposal does not change the EIM entity's balancing authority reliability requirements and no liability would be assumed by the ISO in providing this service.

## **POSITIONS OF THE PARTIES**

Stakeholders broadly support the proposed design changes to market power mitigation, submission of import and export base schedules, and providing outage information to the regional reliability coordinator if requested by the EIM entity.

Some stakeholders have requested additional review of the proposed congestion credit allocation and have raised concerns of unintended consequences that may reduce the transfer capability between balancing areas in the EIM footprint. Management has reviewed the proposed changes with the Department of Market Monitoring and has concluded the proposed congestion credit allocation will not decrease incentives to maximize the amount of unused transmission capability to support EIM transfers.

Management's proposed congestion credit allocation better aligns with the foundational EIM principle that congestion credits and costs should reside in the balancing area in which a constraint is located.

Management reviewed the full scope of market design proposals discussed in phase 2 with the EIM Transitional Committee. The EIM Transitional Committee reviewed the current items being brought forward for Board decision, but given stakeholder feedback and the limited impact of these items, did not feel compelled to provide an opinion. The EIM Transitional Committee's primary interest focused on a potential EIM transmission rate and mandatory economic bidding on EIM external interties which, as noted above, were determined not necessary at this time but would continue to be reviewed.

## **CONCLUSION**

Management requests Board approval of phase 2 of the EIM year 1 enhancements proposal discussed above. The proposed modifications will enhance the EIM market design by allocating congestion credits appropriately, provide more effective market power mitigation, and standardize base schedules submission for imports and exports.