Consolidated EIM Initiatives from 2017 Roadmap
Straw Proposal

Comments by Department of Market Monitoring
August 17, 2017

Summary

DMM appreciates the opportunity to comment on the Consolidated EIM Initiatives Straw Proposal. The Straw Proposal presents potential market design approaches to compensate EIM entities which facilitate wheeling EIM transfers. The Straw Proposal also presents new EIM market functionalities. DMM offers comments below on these topics.

Each of the ISO proposals for compensation of wheeling EIM transfers has potential to introduce significant market inefficiencies. These inefficiencies may be introduced directly through the hurdle rate approach, or indirectly through altered bidding incentives in the ex-post approach.

Among the new EIM market functionalities presented, DMM highlights the need for resources modeled using the new Generic NGR modeling functionality to be subject to local market power mitigation. DMM is supportive of the ISO proposal that Generic NGR resources under the use case discussed in the Straw Proposal will be subject to local market power mitigation. DMM recommends that the use of the Generic NGR model as presented in the Straw Proposal be clearly defined in the tariff for purposes of mitigation. This will ensure consistent mitigation rules for energy storage resources regardless of the NGR modeling framework selected.

I. Equitable Sharing of Wheeling Benefits

When EIM transfers "wheel" through an EIM BAA, the BAA serves as a conduit for EIM transfers between other EIM BAAs. EIM transfers neither source nor sink in the BAA which facilitates the wheel. When no congestion occurs from these wheeling transactions, the BAA facilitating the wheel receives no revenue from the transaction and the use of their transmission.

The Straw Proposal raises a potential equity issue for those EIM BAAs which may facilitate proportionately more wheeling transactions when compared to EIM transfers sourcing or sinking in the BAA. The premise of the issue is that these BAAs may realize fewer benefits from EIM transfers in or out and may not be fairly compensated for the value of their transmission which facilitates benefits for other EIM BAAs. Additionally, some stakeholders have made an argument that, for EIM BAAs which frequently facilitate wheeling transactions, there may not be sufficient incentive to offer significant

amounts of transmission for EIM use without direct compensation for these wheeling transactions. In response to these issues, the ISO has proposed two possible approaches to compensate EIM BAAs for wheeling transactions.

Each of the ISO's proposed approaches has the potential to introduce inefficiency to the market. Additionally, the after-the-fact approach to compensate for wheeling transactions allocates costs based on total EIM transfers in and out. As DMM understands, the total EIM transfers in and out are a proxy for EIM benefits realized by a particular BAA. This approach appears overly simplistic for the purpose of cost allocation as it does not capture the wide range of potential benefits derived from EIM participation. Finally, it is not apparent that any additional incentive is needed for EIM entities to provide transmission in the EIM.

Either proposed approach for wheeling compensation may introduce inefficiency

Each of the proposals put forth by the ISO to compensate EIM BAAs for facilitating wheeling EIM transfers may introduce inefficiency in market outcomes. These inefficiencies may result from a per-MWh fixed cost recovery approach influencing bidding behavior, or more directly through the hurdle rate which may lead to inefficient dispatch of EIM resources.

The ISO has stated that the proposed compensation for wheeling transactions is not intended to be an EIM transmission charge, and that developing such a charge is out of scope for this initiative. DMM notes, however, that the proposal to compensate for wheeling transactions regardless of congestion has similarities to wheeling access charge (WAC) in the ISO. The ISO assesses WAC charges to wheeling and export transactions on a per MWh basis. The revenue collected goes to the transmission revenue balancing accounts (TRBAs) of the participating transmission owners (PTOs) in the ISO. The revenue in the TRBA is then used to adjust the amount of transmission revenue requirement to be collected from load in subsequent years through the transmission access charge (TAC), or to adjust for under collection of TRR through TAC[1].

In the EIM, all entities recover the full amount of costs for their transmission assets through their respective open-access transmission tariffs (OATTs). Like the WAC revenues in the ISO, any revenue collected on a per-MWh basis of net EIM transfers in or out would likely be treated as an additional offset to fixed cost of transmission for the EIM entity BAAs which facilitate wheeling transactions. In this way, the compensation for wheeling EIM transfers amounts to a fixed cost recovery offset being charged on a per-MWh basis of non-wheeling EIM transfers.

[1] For additional detail see: "How Transmission Cost Recovery Through the Transmission Access Charge Works Today – Background White Paper", April 12, 2017 http://www.caiso.com/Documents/BackgroundWhitePaper-ReviewTransmissionAccessChargeStructure.pdf

In the ISO market, the fixed transmission cost recovery reflected as a per-MWh WAC may alter bidding incentives of exports. This results in inefficiency when export bids do not reflect the full willingness to pay in their bids because of the WAC charge. EIM transfers out of a BAA are not bid directly. However, a fixed cost recovery reflected as a per-MWh charge on net EIM transfers in and out to compensate wheeling EIM transfers may still result in market inefficiency. This potential exists under each of the ISO's proposed approaches, albeit in a potentially different way than the WAC introduces inefficiency for ISO exports.

In the proposed ex-post compensation approach, EIM entities would be assessed charges for EIM wheeling on a per-MWh basis of net EIM transfers in and out. In this situation, EIM entity merchant generators may be incentivized to structure bids which reduce the likelihood of EIM transfers in or out of the BAA, thus reducing potential exposure to wheeling charges. EIM entity merchant generators in EIM BAAs which frequently source EIM transfers out may be incentivized to raise bids above marginal cost in an effort to reduce transfers out. Similarly, EIM entity merchant generators in EIM BAAs which frequently receive EIM transfers in may have incentives to lower bids below marginal cost in an effort to increase internal dispatch and reduce EIM transfers into the BAA. In the hurdle rate approach, the inefficiency is more directly introduced as it may prevent the least-cost dispatch of EIM resources when the hurdle rate is considered as a marginal cost in the market optimization.

EIM entities may not need additional incentive to offer transmission

At the last stakeholder meeting some participants stated that compensation for wheeling transactions is necessary to incentivize the maximum offering of transmission by EIM entities for use in the EIM. This point was made stating that many benefits of EIM participation (e.g., optimization of internal resources) are available even when little transmission is offered to the EIM.

It is not apparent that additional compensation for wheeling transfers is required to incentivize offering transmission to the EIM, even when an EIM BAA frequently facilitates wheeling transfers. As an initial point, DMM notes that any possibility of benefits from EIM transfers resulting in economic sales or purchases outside of EIM entity's own BAA is entirely dependent on making transmission available to EIM. This alone should provide some incentive to offer transmission capacity for use in the EIM. Additionally, congestion may occur on any EIM transfer which would provide further benefit through congestion revenues. Finally, the value of EIM transfers which do source or sink in the BAA may be sufficiently high to provide strong incentive for offering maximum transmission, even if the volume of wheeling transfers is proportionally more than the volume of transfers sourcing or sinking in the BAA.

II. New EIM Functionality

The Straw Proposal presents several new EIM functionalities in support of the Powerex implementation and for the broader EIM market. Among these functionalities is the use of a new non-generator resource (NGR) functionality, Generic NGR, for aggregation of EIM resources. This functionality is like the NGR model used today for energy storage resources, but without a state-of-charge constraint. As DMM understands, the Generic NGR functionality may also be used in the future by storage or distributed energy resources which choose not to have the ISO enforce a state-of-charge constraint on the resource.

The ISO proposes to make Generic NGR resources as discussed in the Straw Proposal subject to mitigation. DMM supports this proposal in the context presented in the Straw Proposal. Under the current ISO tariff, no NGR is subject to local market power mitigation. While it may be appropriate for all NGRs to be subject to mitigation in the future, the ISO needs to make provisions in this initiative for the particular use of NGR described in the Straw Proposal to be subject to mitigation immediately upon its implementation. Potential mitigation of storage and distributed energy resources which may be modeled under NGR requires further analysis and development of a robust default energy bid framework.

In the absence of a full evaluation of mitigation for energy storage resources and other NGR types, the use case of Generic NGR described in the Straw Proposal for EIM resources should be clearly defined in the tariff rules for mitigation and differentiated from similarly modeled NGR storage resources. Failure to do so would result in inconsistent mitigation rules for storage and distributed energy resources dependent only upon whether they choose an NGR model which enforces a state-of-charge constraint.