

COMMENTS OF NV ENERGY ON THE CONSOLIDATED EIM INITIATIVES FROM THE 2017 ROADMAP

STRAW PROPOSAL

DATED JULY 31, 2017 CAISO STAKEHOLDER PROCESS

August 17, 2017

NV Energy

NV Energy appreciates the opportunity to review and comment on the July 31, 2017, Straw Proposal which presents consolidated EIM-related initiatives from 2017 Roadmap as well as additional proposals to accommodate Powerex's participation in the EIM. NV Energy recognizes and greatly appreciates the substantial efforts of CAISO Staff in preparing the Straw Proposal, the analysis supporting the options, and the proposed enhancements to facilitate Powerex entering the EIM.

1. Third Party Transmission Contribution

In the June 27, 2017, Issue Paper, the CAISO stated that certain third-party transmission owners had expressed interest in making available transmission capacity located between two EIM Balancing Authority Areas for use in the EIM. The CAISO proposed to provide them with congestion revenues from the real-time congestion offset (RTCO) in exchange for making this transmission capacity available. In comments, NV Energy and other stakeholders responded that, given the generally low levels of congestion in the EIM, it was questionable that the RTCO could provide a significant payment, which would be further reduced by the additional transmission capacity. NV Energy also was concerned if the initiative either: (1) could potentially increase uplift charges to the existing EIM Entities; or (2) would serve as a disincentive for other Balancing Authority Areas to join the EIM.

Based on stakeholder feedback, the CAISO proposes to remove the Third Party Transmission Contribution from the scope of this initiative. NV Energy supports this determination.

2. Management of Bilateral Schedules

In the Issue Paper, the CAISO proposed to expand its existing wheeling bid functionality to address the issue of transmission customers with non-participating bilateral transmission schedules being exposed to EIM congestion costs if they adjust their schedules between the T-55 financially-binding submission deadline required by the CAISO Tariff (section 29.34(f)) and T-20 as permitted under the FERC *pro forma*



OATT. In the Straw Proposal, the CAISO departs from this approach. First, the CAISO recognizes that stakeholders expressed a preference for a resolution of this issue by the CAISO improving the market timelines to enable customers to submit their balanced schedules closer to the T-20 timeline. Second, the CAISO outlines actions that EIM Entities could take voluntarily to set aside transmission capacity for these potential schedule changes and to provide transmission customers a "perfect hedge" against potential congestion costs.

With regard to the CAISO's first suggestion on EIM Entities reserving transmission capacity, NV Energy recognizes that setting aside transmission capacity could reduce the potential need for re-dispatch if a transmission customer modifies their schedule after the start of the CAISO's market run. However, this withholding of transmission capacity could also contribute to "phantom congestion." decreasing the market efficiency by artificially limiting transmission capacity offered to the EIM during the intervals where there is no increase in a customer's transmission schedule between T-55 and T-20.

NV Energy's current practice is to notify the CAISO of available transmission capacity and the e-Tags for the scheduled transactions. As the e-tags change, NV Energy informs the CAISO of the updated information, which is then taken into account in the EIM dispatch by reducing the amount of transmission available to the market. In this way, the maximum amount of transmission capacity is available to the EIM, enhancing market efficiency and customer benefits.

With regard to its second suggestion, the CAISO notes that re-dispatch costs are included in the RTCO of the EIM Entity where the constraint is located, and that the RTCO includes congestion revenues that result from imbalance settlement of the wheel schedule change, which can exceed the re-dispatch costs. Thus, the CAISO posits that an EIM Entity could use these revenues to provide transmission customers with a "perfect hedge" against this congestion exposure.

As recognized in the Straw Proposal, EIM Entities have taken the position that bilateral schedule changes after the CAISO scheduling deadlines should be charged for congestion costs on a cost-causation basis as they contribute to the re-dispatch costs. FERC has repeatedly supported this approach, which is reflected in all of the EIM Entities' respective OATTs.

NV Energy appreciates the examples prepared by CAISO staff to assist in understanding the proposal and recognizes that with additional experience with the EIM, it is appropriate for EIM Entities to further consider this issue. Among the questions to evaluate is whether or not there are other components to the RTCO such that there could be a shortfall in the amounts available for the perfect hedge. NV Energy will evaluate the proposal further to determine if modifications to its current practices are warranted.



3. Net Wheeling Compensation

To date, the EIM has operated without a separate transmission charge based on a reciprocity principle. In comments on the Issue Paper, NV Energy recognized the merit of analyzing the issue of a potential EIM wheeling charge further. In the Straw Proposal, the CAISO notes that an EIM Entity facilitating a wheel-through receives no direct financial benefit and identifies two possible approaches for compensating the intermediary EIM Entity: (1) implement an ex-post payment based on the amount of net wheeling that occurs; or (2) implement a hurdle rate that can be incorporated into the market. In addition, the CAISO presents an analysis that demonstrates the MWh of wheeling does vary across EIM BAAs. The CAISO states that this pattern will change with the addition of new EIM Entities.

During the meeting on August 7, 2017, the second option, a hurdle rate, was generally disfavored by stakeholders. This approach would affect the market dispatch, potentially decreasing the benefits observed to-date.

With respect to the option of an ex-post payment, stakeholders raised a number of important considerations. Issues that would need to be considered in the development of an ex-post payment include:

- Does the exclusive focus on wheeling differentials fail to recognize other EIM benefits such as optimization of internal generation, visibility and reliability, flexible ramp availability, and congestion management?
- How would a just and reasonable level for an ex-post payment be determined?
- Would an ex post charge change the value proposition for certain EIM Entities, and
- How often would the rate need to be examined and updated?

Of particular interest to NV Energy was Figure 6 from the CAISO's Straw proposal, which identified whether or not a participating Balancing Authority Area was facilitating more transfers than its total amount of imports and exports. As shown by the CAISO, *all* the participating EIM Balancing Authorities are importing and exporting more than they are facilitating wheeling. In other words, all EIM participants receive more direct benefits from EIM transfers utilized to facilitate their own participation rather than from EIM transfers they wheel for others.



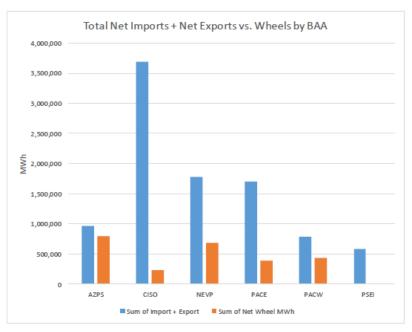


Figure 6: Summation of total net imports + total net exports in comparison to total wheels by BAA

At the outset of its participation, NV Energy played a key role in linking the CAISO and PacifiCorp East Balancing Authority Areas. With the addition of Arizona Public Service Company there is substantial additional transmission capacity integrating CAISO and PacifiCorp East. NV Energy expects that the addition of other EIM participants will continue to disburse transmission utilization among the EIM participants. There will always be dynamics in the market as it evolves with new entrants.

Nevertheless, the CAISO analysis demonstrates that NV Energy is facilitating over 685,000 MWh of wheeling without compensation. NV Energy supports further study of the issue of the ex-post payment approach. In addition, to the questions and issues noted above, the study should address the overall effect on market dynamics. NV Energy greatly appreciates the thoughtful effort of CAISO staff in developing this analysis.

4. Modified Functionality forPowerex

The final category of changes in the Straw Proposal is a series of market design modifications to facilitate Powerex joining the EIM. While the CAISO states that these "design enhancements also provide general benefits to the EIM and are largely applicable to all EIM entities," that statement is questionable as a number of the proposals appear to be based on circumstances applicable only to Powerex.

NV recognizes the benefits of new participants in the EIM and that it may be necessary to make certain accommodations with respect to BC Hydro being a Canadian entity. Any such accommodations, however, must be narrowly tailored and not unduly preferential.



For example, the CAISO proposes to automatically adjust *a single EIM non-participating resource schedule* to match import or export schedule changes after T–40. Again, this appears to accommodate the specific circumstances of Powerex acting in both merchant and EIM Entity capacities. One could readily imagine the cry of undue discrimination if one of the current EIM Entities implemented an automated feature that would reduce potential imbalance charges and applied it only to their merchant function bilateral schedules and not the bilateral schedules of other transmission customers.

Additionally, the CAISO proposes to permit Powerex to use the non-generating resource modeling functionality to aggregate both participating and non-participating resources. This functionality was designed primarily for energy storage resources. Permitting a form of participation in which Powerex does not have to specify unit specific characteristics but instead has a continuous operating range from negative to positive injection, no start-up cost, start up time, minimum up time, minimum down time, or forbidden operating regions appears to be preferential. It also raises questions as to how to calculate an appropriate default energy bid. The CAISO states that this additional modeling functionality "will support individual resources and aggregation of resources in the broader EIM area." However, broad aggregations could pose issues with respecting transmission constraints in responding to dispatch instructions.

In addition, the CAISO proposes to exempt BC Hydro transactions wholly outside the US from the EIM administrative charge in the Powerex participation agreement. The question arises as to whether or not these transactions can give rise to imbalances that can be served from the EIM. If so, the exemption appears overbroad.

NV Energy recognizes that this is the initial Straw Proposal. Accordingly, NV Energy looks forward to the CAISO coming forward with additional detail as to the proposed EIM implementation program for Powerex. Further iterations of the Straw Proposal should provide additional specificity as to why the proposed functionality is *necessary* to address the specific circumstances of BC Hydro and how the existing and future EIM Entities could meaningfully utilize similar functionality in their operations for the benefit of their customers.