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PacifiCorp Comments on the Consolidated EIM Initiatives Straw Proposal

PacifiCorp hereby submits the following comments to the California Independent System Operator Corporation (“ISO”) on its Consolidated Energy Imbalance Market (“EIM”) Initiatives straw proposal dated July 31, 2017, (“Straw Proposal”). The Straw Proposal addresses three EIM initiatives from the ISO’s 2017 stakeholder policy initiatives roadmap: third-party transmission contribution, management of bilateral schedule changes, and net wheeling charge. The Straw Proposal also addresses new functionality proposals identified by the ISO as necessary to support the Powerex EIM implementation, which the ISO further states will also provide general benefits to the EIM and are largely applicable to all EIM Entities.

Management of Bilateral Schedule Changes

The ISO’s issue paper dated June 27, 2017, (“Issue Paper”) proposed to allow market participants the use of “wheel bids” to manage their exposure to imbalance settlement for bilateral schedule changes made after base schedules are submitted. In the Straw Proposal, the ISO has removed its previous proposal and replaced it with a determination that in addition to moving the base schedule deadline closer to the e-Tagging deadline of T-20, as contemplated in the upcoming real-time market enhancements initiative, the imbalance settlement concerns due to bilateral schedule changes after the T-57 deadline could be managed by an EIM Entity’s business practices or changes to an EIM Entity’s open access transmission tariff (“OATT”).

PacifiCorp agrees that using the ISO’s existing wheel-through functionality may not be feasible or commercially attractive for market participants. PacifiCorp appreciates the examples the ISO provided in the Straw Proposal and acknowledges that the EIM Entity retains discretion to determine if and how it will settle imbalances due to bilateral schedule changes submitted past the market scheduling deadline, including to maintain the status quo for such settlements.

Net Wheeling Charge/Equitable Sharing of Benefits

The issue identified by the ISO is that some EIM Entities experience more net wheeling than others relative to EIM transfers that sink or source within an EIM balancing authority area (“BAA”). The Issue Paper suggested that existing ISO functionality could be used to “reallocate” congestion revenues in the real-time congestion offset (“RTCO”) to the wheel-through EIM



Entity facilitating the transfer when congestion occurs. However, the ISO has moved away from this suggested solution in its Straw Proposal, and instead proposes using one of two recommended solutions: 1) an ex-post payment based on the amount of net wheeling that occurs; or 2) a hurdle rate that can be incorporated into the market and allow market competition while providing compensation to EIM BAAs for net wheeling. PacifiCorp supports the ISO's decision to remove its previously suggested solution of using existing functionality to reallocate congestion revenues using the RTCO mechanism for the reasons stated in its comments on the Issue Paper.

PacifiCorp continues to have concerns in general regarding compensation for wheel-through BAAs, in addition to the benefits already garnered by participating in the EIM. Further, PacifiCorp believes it is too early to understand if there is truly a market problem to be solved. PacifiCorp agrees with the ISO that transmission cost recovery should not be in scope in this initiative, but also observes that it seems premature to propose a market solution with such a limited time period of market information, particularly when the EIM continues to grow at present rates. PacifiCorp recommends, at a minimum, waiting for a period of time after the entry of Portland General Electric, Powerex, and Idaho Power when it is possible to obtain a better idea of how the scheduling of resources and transfers will occur in the expanding market. PacifiCorp notes that it is also possible, due to the limited data set used in the analysis, that the schedule of transfers over the prior nine months was related to anomalies such as higher than usual hydro run-off and Aliso Canyon issues. Moreover, the initial six months of new entrant participation can be somewhat volatile. PacifiCorp recommends that the initiative be postponed and continue to be monitored so that new entrants can make informed comments that truly reflect transfers across their systems. PacifiCorp does not at this time support the ISO's proposal for an ex-post payment for wheel-through EIM BAAs.

PacifiCorp does not support the ISO's proposal for a hurdle rate to compensate wheel-through EIM Entities because such a rate would be imbedded in the market, cause interference with market dispatch, and have a potentially undesirable impact on market prices and transfer costs.

New Functionality

In the Straw Proposal, the ISO has introduced five new functionality proposals: 1) automated matching of import/export schedule changes with a single EIM non-participating resource; 2) automated mirror system resources at ISO intertie scheduling points; 3) ISO to provide EIM Entities with base EIM transfer system resource ("ETSR") imbalance settlement information; 4) leveraging non-generator resource ("NGR") modeling functionality for EIM participating resources ("EPRs") and non-participating resources ("NPRs"), aggregated and non-aggregated; and 5) allow submission of base generation distribution factors ("GDFs") for aggregated NPRs. The Straw Proposal states that the proposed new functionality will be necessary to support Powerex's EIM implementation, but that the functionality will "also provide general benefits to the EIM and are largely applicable to all EIM entities."

PacifiCorp supports the ISO's effort to onboard a new participant to the EIM that requires some modifications to the standard form of entry, but in doing so, other EIM participants need to be



assured that any such modifications are transparent and do not unduly prefer or discriminate against other market participants. While PacifiCorp appreciates that the ISO hopes that modifications to accommodate Powerex will benefit other EIM participants, PacifiCorp observes that most of the new functionality will not be applicable to PacifiCorp, primarily because it has third-party transmission customers with load, NPRs and EPRs within its BAAs, and the application of the NGR model would not apply to any of its resources, industrial customers or hydro operating units.

PacifiCorp is generally concerned that the design of these new features has the potential to allow a new EIM participant to avoid scheduling penalties, transmission capacity requirements and flexible capacity requirements because of the proposed unconstrained resource (negative and positive) and auto-mirroring functionality after the scheduling deadlines. PacifiCorp's concerns with the proposed functionality may be unfounded, but without understanding how Powerex will participate in the EIM, these new features developed to support Powerex's EIM implementation appear to provide a potential advantage that would be unique to a single EIM Entity. The implementation agreement for Powerex's EIM participation does not provide the level of needed detail to allow PacifiCorp to fully understand how the proposed functionality might be utilized by Powerex. Based on information the ISO has provided to date, PacifiCorp has concluded that Powerex will not be participating in security constrained economic dispatch internal to its BAA as is required of all other EIM Entities, but instead will get the benefit of assumed balance, and flex ramp and transmission sufficiency in its BAA. As a result it appears there is no need for any individual resource in Powerex's BAA to follow a specific dispatch, and resources would not be subject to penalties or ETSR limitations based on any of the market tests. In this paradigm, an NGR can be used to represent the capability of a BAA, and an EPR can be used to offset any imbalance in the model. However, this is not true for the rest of the EIM footprint, wherein BAAs must follow specific dispatches, and demonstrate balanced schedules, flex ramp sufficiency, and transmission availability. Not doing so results in penalties specific to each generator and BAA including third-party generators. Below are PacifiCorp's specific comments on each proposed design enhancement.

Automated Matching of Import/Export Schedule Changes with a Single NPR

The ISO explains that this functionality allows an EIM Entity to automatically adjust a single EIM NPR schedule to match import or export schedule changes after T-40. The ISO proposes that this functionality would eliminate the need for the EIM Entity BAA operator to issue a manual dispatch instruction to the EIM NPR. This functionality would not seem to be useable by an EIM Entity who's BAA contains third-party transmission customers with generating resources or load. Use of the functionality would require PacifiCorp's merchant to designate one of its own NPRs and that NPR would be adjusted even if the import or export schedule that changes after T-40 is related to a third-party schedule. In addition, it isn't clear why the Straw Proposal states that an EIM Entity BAA would be required to utilize a manual dispatch instruction on an NPR resource to match import or export schedule changes. It is PacifiCorp's understanding that imbalances related to changes in import or export schedules after the T-40 scheduling timeline are managed by the market model utilizing EIM participating resource capacity.



Automated Mirror System Resources at ISO Intertie Scheduling Points

The Straw Proposal sets forth that this proposed enhancement will automate the mirroring of ISO import/export schedule changes at ISO scheduling points after T-40, and that the functionality is limited to mirroring ISO import/export schedules from registered system resources. The ISO explains further that the auto-mirroring functionality can be combined with the auto-matching functionality by specifying an automated mirror system resource to be auto-matched by the single EIM NPR used for that purpose, but that the automated mirror system resource must only be mirroring ISO import/export self-schedules. As noted above, PacifiCorp would not be able to take advantage of this functionality due to its third-party customers. PacifiCorp would not want a third-party's intertie schedule to get mirrored on one of PacifiCorp's NPRs.

ISO to Provide EIM Entities with ETSR Imbalance Settlement Information

The ISO models bilateral transactions between EIM Entities using base ETSRs. However, currently, the ISO does not settle base ETSR schedule changes. The ISO proposes to provide EIM Entities with settlement information for base ETSR schedule changes, which is intended to allow EIM Entities to determine the point of delivery of the base ETSR and therefore the locational marginal price ("LMP") used for settlement between the two EIM entities will be known. The ISO believes the data may help facilitate settlement of bilateral transactions in the EIM area.

PacifiCorp recommends that the ISO settle the base ETSR schedule changes with EIM Entities if the ISO has the available information. This would resolve the current non-comparable ISO imbalance energy settlement treatment between base schedule changes at ETSR points and base schedule changes at static intertie points. The ISO has the necessary systems to accurately settle the ETSR base schedule changes and its position as the market operator will better ensure any implementation of ETSR base schedule change settlements will be handled consistently across all EIM Entity BAAs and thus benefit all EIM Entity transmission customers.

Leveraging NGR Modeling Functionality for EIM EPRs and NPRs, Aggregated and Non-aggregated

The ISO states in its Straw Proposal that Powerex will use aggregated resources to model EPRs and NPRs, and that these aggregated resources will utilize the ISO's NGR modeling functionality so that the resource can reduce output without having a forward energy schedule.

PacifiCorp is concerned that allowing an EIM Entity to aggregate its resources under this model could provide a mitigation tool for infeasibilities, flex ramp sufficiency and scheduling requirements. For example, the generic NGR model will allow an EIM Entity to aggregate all of its hydro units thus allowing the units to have a negative Pmin (i.e., -400 MW) and a very high Pmax (i.e., 5000 MW). It is unclear how these resources will be effectively subject to local market power mitigation or how a default energy bid will be established for such a wide variety



of resources that may have different storage capability that would affect the opportunity cost of the unit.

The generic NGR model does not have state of change limits (forbidden zones or transitions) and is modeled as a completely fictitious resource. It was originally thought that EIM Entities could potentially use this for industrial customers. However, because the model cannot respect “forbidden zones,” as was confirmed by the ISO during the stakeholder meeting and in the Straw Proposal, it would not work for industrial customers. Moreover, this type of model does not work for individual hydro units for the same reason, and it does not work for thermal resources. At a minimum, PacifiCorp requests that the generic NGR model be enhanced to allow it to respect forbidden zones, so that it would be useful to other EIM Entities.

Allow Submission of Base GDFs for Aggregated NPRs

The ISO explains in the Straw Proposal that this enhancement will support base GDF submission for aggregate EIM NPRs through the submission of base schedules, and that the base GDFs will be used to calculate the aggregate LMP for the aggregated EIM NPR. Without further clarification from the ISO on how Powerex will participate in the market, be represented in the market model, or how these GDF’s will be utilized, PacifiCorp is unable to provide comments at this time.

Third-Party Transmission Contribution

In its Issue Paper, the ISO proposed that the third-party transmission contribution would be dependent on the RTCO mechanism. In the Straw Proposal, the ISO proposes to completely remove the third-party transmission contribution initiative from scope, based on stakeholder feedback that indicated congestion rents may not provide adequate compensation, stakeholders do not believe the functionality would be widely used, and the implementation cost would outweigh the financial benefit. Although PacifiCorp believes that more transmission available for the market is beneficial, the mechanism that delivers additional transfer capacity must be transparent and fair to all EIM participants. PacifiCorp raised concern in its comments on the Issue Paper that the RTCO, as it is implemented and settled today lacks sufficient, verifiable transparency such that it can be easily shadowed and validated. For these reasons PacifiCorp supports removal of the third-party transmission contribution initiative from the scope of this consolidated initiative.

Conclusion

PacifiCorp appreciates the opportunity to submit these comments and looks forward to continuing to work with the ISO and stakeholders on these issues.