



PACIFICORP'S COMMENTS ON THE EIM YEAR 1 ENHANCEMENTS ISSUE PAPER AND STRAW PROPOSAL

I. INTRODUCTION

PacifiCorp hereby submits the following comments to the California Independent System Operator Corporation ("ISO") for its Energy Imbalance Market ("EIM") Year 1 Enhancements Stakeholder Process on the Issue Paper and Straw Proposal dated November 10, 2014 ("Straw Proposal"). PacifiCorp appreciates the opportunity to provide comments on this initiative for the ISO's consideration.

II. COMMENTS

A. Settlement of Non-Participating Resources

PacifiCorp supports the ISO's proposal to add several real-time energy categories for EIM settlements to account for the operational characteristics of non-participating resources and agrees that it is important to ensure that all non-participating resources are eligible for the same calculation of instructed imbalance energy ("IIE") and uninstructed imbalance energy ("UIE") across the EIM area.

As explained in the Straw Proposal, the addition of the real-time energy categories discussed in the proposal will account for non-participating resource ramp rates through the operating hour. These operational characteristics will be considered to be a non-participating resource's fifteen minute market ("FMM") schedule and will be settled as IIE at the FMM price, similar to the settlement treatment currently provided in the EIM for non-participating resources with Variable Energy Resource ("VER") forecasts, outages or manual dispatch. This is an important and necessary enhancement because, without this change, differences between a non-participating resource's base schedule and ramp rates through the operating hour will be settled as UIE, which is used as the denominator when the ISO calculates the pro-rata share of bid cost recovery ("BCR") uplift and the real-time imbalance energy offset that is transferred between BAAs. Allowing differences between a non-participating resource's base schedule and ramp rates through the operating hour to be settled as IIE will reduce potential exposure to these uplift and neutrality charge codes.

The Straw Proposal sets forth five real-time energy categories. It is not immediately apparent from the listed energy categories whether the ISO plans to add all of these to EIM settlements or what the distinctions or similarities are between these categories. It would be helpful if the ISO

could clarify what is intended with each energy category or provide some examples which would illustrate how these will be used in EIM settlements. The Straw Proposal also refers to "certain scenarios" in which a non-participating resource could be subject to BCR. PacifiCorp requests that an example be provided to help further understand when such a circumstance would apply and how it would be treated for settlement purposes. Examples are very important for ensuring that both PacifiCorp and its customers are provided with a meaningful opportunity for review, comment and validation prior to financially binding implementation.

PacifiCorp also requests that the ISO provide additional explanation as to how these energy categories will be incorporated into the ISO tariff for EIM settlements. This is an important element for PacifiCorp or any EIM Entity to understand so that it can determine what, if any, changes will be needed to its own tariff or business practice for EIM settlements in order to pass through or sub-allocate, as appropriate, EIM settlements for non-participating resources.

As with the other EIM Year 1 enhancements discussed in the Straw Proposal, the ISO proposes that the enhancement for non-participating resource settlements be subject to a March 2015 Board of Governors decision prior to implementation. While PacifiCorp is generally supportive of this schedule, it will be monitoring settlements for non-participating resources and may request that the ISO implement the proposed enhancement sooner than is currently contemplated.

B. GHG Flag and Cost Based Bid Adder

PacifiCorp supports development of a flag to allow participating resources to opt out of being considered for EIM Transfer into the ISO and to modify the Green House Gas ("GHG") bid adder to be based upon the actual compliance cost of the participating resource. PacifiCorp agrees with the ISO's description of the GHG flag and GHG cost based bid adder limit implementation. PacifiCorp requests clarification of the example of an EIM Transfer to California that is less than the participating resource's bid range. The last paragraph on page 8 of the Straw Proposal explains the example: "For example, assume there is only the resource above supporting GHG awards." The next paragraph in the section says "The additional awards will be given pro-rata based upon the bid range offered from all resources allowing GHG awards..." Please clarify whether only one resource or multiple resources are allowing GHG awards in the example. Further, please provide an example where several participating resources are not allowing GHG awards and only one participating resource is allowing GHG awards. PacifiCorp requests that the ISO answer whether the EIM Transfer would be limited due to the lack of allowed GHG awards.

Generally, PacifiCorp agrees with the ISO's description of a GHG cost based bid adder limit. However, PacifiCorp is concerned that the specific implementation may introduce a discrepancy between the GHG adder used by the EIM and the GHG exposure reported to the Air Resources Board. The issue paper states "Under the variable cost option, on a daily basis, the ISO will calculate a GHG cost adder as the product of the resource's incremental heat rate, the GHG emissions rate authorized by CARB, and the applicable greenhouse gas allowance price, which would also include a 10% adder to the calculated cost." PacifiCorp reflects the GHG bid adder cost in \$/MWh as the product of each resource's GHG emission factor published by the Air

Resource Board and expressed in (MT CO₂e/MWh) multiplied by the GHG market rate in (MT CO₂e). This method reflects PacifiCorp's actual compliance costs at the time of delivery. However, the ISO's approach would use the RDT heat rate information and is reflected in the GHG bid adder submitted for each resource in the SIBR application. As PacifiCorp uses a different approach, PacifiCorp would select the negotiated rate and requests that the ISO confirm that this option will still be available after implementation of this EIM enhancement.

C. Establishment of EIM Transfer Limits Using ATC

PacifiCorp supports the ISO's proposal to utilize available transfer capability ("ATC") to facilitate EIM Transfers between NV Energy ("NVE"), the ISO and PacifiCorp when NVE joins the EIM in October 2015. As noted in the Straw Proposal, PacifiCorp's current EIM implementation does not utilize ATC for EIM Transfers. PacifiCorp's EIM implementation relies upon the PacifiCorp Interchange Rights Holder ("PIRH") mechanism, which provides for an existing transmission customer to allow its firm intertie rights to be used for EIM Transfers (without charge or compensation). This mechanism was developed because the interties between the ISO and PACW BAAs and PACE and PACW BAAs are fully subscribed on a firm basis and have other transmission providers, customers, owners or path operators. Notably, PIRH transmission rights for EIM Transfers are tagged and are submitted to the EIM prior to twenty minutes before the operating hour ("T-20").

NVE's entry into the EIM will require new solutions for EIM Transfers, which will in turn require the ISO and PacifiCorp to implement new methods for EIM Transfers with NVE. In order for the EIM to optimize the EIM Area, the ISO must know transmission capacity available for EIM Transfers no later than T-40, however, as noted in the Straw Proposal, actual ATC for the upcoming operating hour may not be fully known until T-20, when all schedules are required to be submitted in the Western Electricity Coordinating Council ("WECC"). Accordingly, in order to find a solution to enable EIM Transfers if not using a mechanism similar to the PIRH, assumptions about transmission capacity for EIM Transfers between T-40 and T-20 must be made.

PacifiCorp generally understands the ISO's desire to use scheduling mechanisms similar to those currently used in its hour ahead scheduling process ("HASP") to account for ATC, but requests that this EIM enhancement receive additional stakeholder focus in light of the importance of this issue to the entry of any new EIM Entity to the EIM, potential settlement impacts to western scheduling practices and timelines (discussed below), and to the ISO's longer-term initiative around a potential EIM-wide transmission rate. As such, PacifiCorp requests that the ISO conduct a stakeholder workshop on this specific topic to provide the ISO with an opportunity to explain the proposal as well as each of the examples provided in the Straw Proposal. Additionally, PacifiCorp requests that the ISO provide additional information and explanation as to whether there are any other alternatives that the ISO considered along with the instant proposal; the Straw Proposal offers only one alternative, and while this proposal may be feasible for the ISO, it should be considered alongside other options so that stakeholders are provided with a full opportunity for engagement and comment.

PacifiCorp supports the ISO's determination not to require establishing base schedules *earlier than* the current EIM deadline of T-40, and instead to require that the EIM Entity submit its ATC for EIM Transfers at T-40. PacifiCorp also supports the ISO's proposal that the dynamic schedule to support EIM Transfers be tagged by T-20, in recognition of the final scheduling deadline required in the WECC, which cannot be changed by the ISO or any EIM Entity through their respective tariffs.

The ISO's Straw Proposal describes the settlement impacts for differences between ATC for EIM Transfers submitted at T-40 to actual ATC at T-20. Settlement impacts generally consist of imbalance settlement at either the RTD or FMM price, including proposed application of the ISO's HASP schedules decline charge to operational adjustments made to T-40 base schedules for both non-participating and participating imports/exports of the EIM Entity. The ISO's proposal acknowledges that actual ATC for the upcoming operating hour may not be fully known until T-20, but also provides a mechanism for the EIM to receive vital information for EIM optimization needed by T-40 (ATC for EIM Transfers), as well as a settlement mechanism to account for any differences in ATC between those time periods and application of the schedules decline charge as an incentive to submit schedules prior to T-40. While this proposal appears to be feasible in terms of compatibility with the ISO's existing processes and mechanisms, PacifiCorp nevertheless observes that this mechanism could potentially place settlement consequences on scheduling practices that may represent a change from current operations, and as such, this proposal requires careful stakeholder review and comment prior to its acceptance and implementation.

PacifiCorp also observes that as an EIM Entity, it will need to revise its Open Access Transmission Tariff ("OATT") to provide for this new mechanism for EIM Transfers, as well as to set forth how PacifiCorp will propose to sub-allocate any resulting IIE settlements (at either the RTD or FMM Price) as well as any schedules decline charges. Notably, the ISO's Straw Proposal does not specify how an EIM Entity should determine how much ATC to inform the Market Operator of at T-40 and there may be multiple methods for making this determination. For example, the determination of ATC for EIM Transfers at T-40 could be based solely on ATC as posted on the EIM Entity's Open Access Same-Time Information System ("OASIS") at T-40, an assessment of historic ATC, or some other determination. Important to this determination for each EIM Entity will be a weighing and balancing of the various potential benefits and costs associated with identification of ATC for EIM Transfers and any resulting imbalance settlements or schedules decline charges that result. This issue will require further study by PacifiCorp and potentially its own stakeholder proposal relating to how the mechanism should work for PacifiCorp's interties with NVE and sub-allocation of related charges. PacifiCorp requests that the ISO provide additional information about possible methods for sub-allocation of charges resulting from this proposed method.

PacifiCorp requests that the ISO clarify that, in some circumstances, EIM Transfers may be implemented through 5-minute dynamic schedules in combination with static 15-minute schedules, as has been implemented for the California-Oregon Intertie.

D. Resource Sufficiency Evaluation of ISO and EIM Entities Using ATC

PacifiCorp agrees with the ISO's description of the application of the sufficiency test to the ISO balancing authority. PacifiCorp agrees with the ISO's proposal to provide transparency to discrepancies between tagged schedules, base schedules, and HASP schedules. PacifiCorp also agrees with the ISO's proposal to adjust the ramping requirement accordingly. PacifiCorp suggests the threshold should be effectively zero, resulting in any discrepancy causing a ramping requirement adjustment.

E. 15-Minute Bidding on Intertie Scheduling Points

PacifiCorp agrees with the ISO that economic participation at EIM Entity external interties has the potential to provide improved FMM market results and additional capacity for the EIM Entity. PacifiCorp nevertheless submits that EIM Entities should maintain discretion to allow or disallow FMM economic participation on their own external interties given the interaction between BAAs as well as the operational or scheduling characteristics of each EIM Entity's BAA configuration. For example, BAAs which do not have contiguous transmission systems may have other BAAs or transmission service providers interspersed within or around their transmission systems. In such cases, the evaluation of economic participation at the EIM Entity's external interties must also take into account how intertie energy will flow over the interconnected transmission system and whether appropriate transmission arrangements are in place to account for these flows. Accordingly, such an evaluation is an inherently unique exercise and must take into account the specific circumstances affecting the EIM Entity. As such, it would not be appropriate to require each EM Entity to facilitate economic participation at its external interties, without providing the EIM Entity the opportunity to make its own evaluation of the feasibility of such a market expansion.

F. Modification of EIM Transfer Limit Constraints

PacifiCorp supports the ISO's effort to modify EIM Transfer limit constraints as more BAAs join the EIM, and agrees that the EIM Transfer limits should be considered by intertie scheduling point. PacifiCorp requests that the ISO provide detailed information in its design proposal to ensure implementation of a workable solution for both the ISO and the participating BAAs.

G. Administrative Pricing Rules

PacifiCorp supports the ISO's proposal that if both FMM and RTD prices are not available in the EIM, the EIM Entity should provide the ISO with the administrative price and that it is reasonable that this could be based on an EIM Entity's pricing for settling imbalance prior to the implementation of the EIM (e.g., PacifiCorp's Hourly Pricing Proxy). PacifiCorp notes that such price mechanism/settlement may vary between transmission providers.

III. CONCLUSION

PacifiCorp appreciates the ISO's consideration of these comments and understands that the ISO plans to present its proposals to the ISO's Board of Governors for decision at its March, 2015 meeting.