

March 21, 2018

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California Independent System Operator
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Dear Members of the Board,

We hereby respectfully submit our comments regarding CAISO Congestion Revenue Rights Track 1a proposal. CAISO's proposal addresses two major aspects, namely improvements in outage reporting and modeling and limiting the source sink pricing node combinations to bid in CRR auctions.

First with regard to outage reporting, we support CAISO's proposal and believe that CAISO should explore ways to make the auction modeling more accurate and there is lot of room for improvement, specifically with regard to outage modeling. When faced with revenue inadequacy issues, other ISO/RTO's have solved this issue by improving outage modeling as well as targeted improvements to the auction process. In this regard, we believe CAISO's emphasis on outage modeling enhancements is the right approach. We also believe that there would have to be metrics that transmission companies would need to adhere and CAISO would have to enforce metrics with financial consequences when outage reporting is deemed to fall short of desired metrics. This is an area that needs to be explored further and we believe there is considerable upside towards improving the overall efficiency of CRR markets. CAISO would benefit enormously by closely studying and adopting the best practices of other ISO/RTO's on this topic.

However, we believe there is a fundamental flaw in CAISO's argument towards limiting the combination of source/sink pairs for CRR market. CAISO seems to be making a case for limiting the source sink pairs on the basis of separating CRR's into two broad categories: generator-to-generator and non-generator to generator CRR's. CAISO has further made the argument that generator-to-generator CRR's do not provide counter-flow in the auctions and hence need to be eliminated from bidding altogether. This is fundamentally flawed when viewed from the standpoint of constraint shift factors and shadow prices and not as individual pairs. Whether they are generator-to-generator or non-generator to generator, the CRR's bid into the auction are competing to buy transmission capacity as determined by the capacity released less constraints on the grid. So, limiting the combinations that could be bid into the auction will eliminate competition for the capacity and would most likely result in grossly less competitive outcome for the market as a whole. It is important to keep in mind that market participants, regardless of their nature are always trying to express the fair value for capacity auctioned on a certain path when bidding in the auction. It is irrelevant whether they express the fair value through a generator-to-generator combination or non-generator to generator combination. What is relevant is that their bids directly get translated into willingness to buy quantity of transmission at different price points. This happens through the application

of shift factors for the constraint on the path. Limiting the number of combinations would not do any good as it will only limit the available options to express willingness to buy transmission capacity of a constrained path and will lead to non-competitive pricing as a whole for the path. We believe this is a flawed approach that would not lead to anything beneficial in terms of improving auction efficiency and may exacerbate revenue sufficiency issues.

Besides, this is not an approach that any other ISO/RTO market has ever adapted and has any documented success. In fact, to the contrary, other ISO/RTO markets have never considered such an approach to this day most of them allow bidding all possible combinations of source sink commercial nodes with the exception of electrically similar nodes but any further elimination of source sink pairs would be counter-productive.

We believe CAISO's attempt to eliminate source sink combinations is a serious error that needs to be avoided as it is based on flawed assumptions and would be detrimental to competitive market outcome and may well worsen the problem CAISO is attempting to solve in the first place.

We hereby respectfully request the Board to decide in favor of enhancing competition and against the proposal to limit source sink combinations which would be detrimental to competition in CRR market.

Sincerely,

Badri Ramanathan
Velocity American Energy GP LP