

SVP Comments on CAISO CRR Auction Analysis Report

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In response to the CAISO's request for feedback, Silicon Valley Power (SVP) submits the following comments on the on the California Independent System Operator Corporation's (CAISO) Congestion Revenue Rights (CRR) Auction Analysis Report, dated November 21, 2017 (CRR Report).

SVP appreciates the CAISO's efforts in evaluating potential causes of systematic differences between CRR auction revenues and CRR payouts, and also appreciates the extensive analysis included in the CRR Report comprising historical CRR auctions/market performance, modelling of transmission outages and detailed analysis of auctions for representative months. That said, SVP echoes the comments submitted by other Load Serving Entities (LSEs) that the entirety of the data alludes that there is no minor fix or tweak to be made – and thus it is time to address the CAISO's auction design policy. Additional analysis of the data is not as important as directly addressing the inherent problem of LSEs effectively being forced to sell auction CRRs by the current CRR auction design. Any solution needs to address this problem.

The CRR Report: (1) shows that there is extremely low risk for CRR auction participants, with more than 83% of the auction CRRs being profitable; (2) shows that by being forced to effectively sell auction CRRs, ratepayers consistently and persistently have been losing money on auction CRRs, with an aggregate loss of ~\$319 million during January 2014 through May 2017¹; (3) does not support the claims of some market participants that the CRR auction provides significant liquidity benefits to the energy trading market; and, (4) shows that misalignment of the Auction network model and DAM model does not entirely explain market inefficiencies caused by the current CRR auction structure. SVP does not believe that the identified CRR Auction shortcomings can be solved with incremental fixes. Only by requiring that all auction CRRs be between willing counterparties can the CAISO ensure that LSE ratepayers are not harmed by the CRR auction.

Below we discuss several key findings of the CRR report that support reforming the CRR auction so that only CRRs between willing counterparties are cleared.

There Is Extremely Low Risk for CRR Auction Participants, With More Than 83% of the Auction CRRs Being Profitable

The data included in the CRR Report show that an overwhelming 83% of CRR awards provide positive value to the auction participants.² For a significant portion of these CRRs, the auction

¹ CRR Report, p. 49.

² See CRR Report, on p. 8 & p. 59, which indicate that about 17 percent of CRRs acquired in the auction had a net negative money inflow (net CRR payments) from holding CRRs.

participants either paid \$0 or were paid by the CAISO to hold the CRRs. We suspect that a portion of the 17% that were not profitable would be CRRs held by generators as hedges against their physical positions. So even the unprofitable CRRs would be providing benefits to the auction participants. This extremely high percentage of profitable auction CRRs is not sustainable and likely would not occur if auction participation were voluntary for all participants with a financial stake in the outcome of the auction. This is not currently the case for the CRR Auction, since LSE ratepayers effectively, by being exposed to paying for the net costs of CRR inefficiencies, are “forced” to sell the auction CRRs other than the allocation CRRs that they voluntarily unwind.

By Being Effectively Forced to Sell Auction CRRs, Ratepayers Consistently and Persistently Have Lost Significant Money on Auction CRRs

The CRR Report shows that by being effectively forced to sell auction CRRs, ratepayers consistently and persistently have been losing money on auction CRRs, with an aggregate loss of ~\$319 million during January 2014 through May 2017³. The CRR auction structure needs to be reformed to address the problem of transmission ratepayers receiving just \$0.52 in CRR auction revenues per \$1 paid out to CRRs purchased in the auction.⁴ The CRR Report supports the DMM finding that the ratio of money paid to auction CRRs to the auction revenues collected on these CRRs continues to consistently exceed the auction payments by a large amount.⁵ Furthermore, SVP notes that the CRR Report highlights the not insignificant number of CRR awards that are cleared at zero dollar prices. This is not surprising, as transmission ratepayers are effectively forced to sell the CRRs without any opportunity to put a floor on the price.⁶ Unfortunately, a price floor is not necessarily a workable solution since it would preclude negatively valued counterflow CRRs, thereby disallowing unwinding of the positively valued allocation CRRs. In contrast, matching willing buyers and sellers directly addresses this problem.

Current CRR Auction Design Has Not Been Shown to Provide Liquidity Benefits to the Energy Trading Market

The large number of electrically close CRRs are unlikely to be furthering the efficiency of the underlying energy market. Instead, they appear to be no cost bets that occasionally will result in payouts to the CRR holder. The CRR Report suggests that the auction participants are selectively obtaining CRRs to extract value.⁷ If the current auction design was truly facilitating the liquidity of the energy trading markets, there would be many CRRs between individual generator pricing

³ CRR Report, p. 49.

⁴DMM's updated white paper, entitled, “Problems in the performance and design of congestion revenue right auction,” November 27, 2017, p.2 and p.11.

⁵ CRR Report, on p.7, states the following. “For most of the time, when auction revenues were collected from CRRs released in the CRR auctions, the net amount was lower than the money paid to auction CRRs. In 2014, the money paid to auction CRRs was as high as five times the auction revenues collected on these CRRs. In 2017, that ratio oscillated between 1.5 to 2.2 times.” Also, see Table 40: Summary of CRR performance for May 2017 at p. 189 of the CRR Report.

⁶ CRR Report, p.10. “There is a set of CRRs in every auction that clear at \$0 prices. Usually these CRRs have sources and sinks located close one to another, electrically speaking. These represent CRRs that are acquired by CRR holders at zero cost.”

⁷ CRR Report, on p. 10, states the following. “The vast majority of CRR payments are for auction CRR definitions between individual supply points, mostly from generation point to generation point and from intertie point to intertie point. A large volume of CRRs released in the auction are for CRR definitions with very few awards. Indeed, about half of the CRR volume released in the auctions are based on CRR definitions with one single award.”

nodes and the Trading Hub (TH)/Default LAP (DLAP) or between Intertie points and the TH/DLAP, and not primarily between generation point to generation point and from intertie point to intertie point as observed by the CAISO. Moreover, there seems to be limited competition for many of the CRR source-sink pairs in both the annual and monthly auctions, with about 45 percent of the overall CRR award volume being for CRR source-to-sink definitions that had one single award.⁸ This suggest little liquidity within the CRR Auction itself.

Misalignment of Auction Network Model and DAM Model Does Not Entirely Explain Market Inefficiencies Caused by Current CRR Auction Structure

The CRR Report provides considerable detail on how the misalignment of transmission modelling between the CRR auctions and the day-ahead market is a major cause for both CRR revenue inadequacy and net CRR payments. We are not surprised by this finding and appreciate the critical elements driving the differences between the CRR auctions and the day-ahead market as identified in the CRR Report⁹. SVP believes, however, that there are two important aspects to keep in mind while thinking through the remedies associated with the historical problem associated with net CRR payments. First, as substantiated by the above-mentioned CRR Report findings, there needs to be a recognition that the current auction design/policy itself has significantly contributed to net CRR payments. Second, as described in the CRR Report, there likely will never be a good way to align the auction network model with the actual DAM model.¹⁰ For example, if the short duration constraint is modelled for all hours of the auction, then auction participants will be paid for counterflow positions for all hours of the month, even though the constraint will only materialize for a few hours. The only way to remove the risk of net CRR payments for LSE ratepayers is to require that all auction CRRs be between willing counterparties.

SVP appreciates the opportunity to comment on this very important issue, and looks forward to a robust and balanced discussion during the December 19th working group meeting.

⁸ CRR Report, p.27.

⁹ CRR Report, p.202.

¹⁰ CRR Report, on p.9 states the following. “There are different levels of complexity in this dynamic; there are cases where the outages are not known by the time the CRR auctions are run; in other cases, outages may be known but they have a short duration (less than 24 hours) and pose a dilemma of how to incorporate them into the CRR auctions. There are two available options once this dilemma arises; do nothing (current approach), or model the outage as a derate or as a full outage which implies having modelled for the full period of the auction. Modelling as a full outage may be seen as an extreme approach for outages that may last a few hours, but in these few hours there may be large revenue shortfalls and CRR payments. Then there is another set of instances where specific constraints are not captured or not known by the time the auctions are run and then these are only enforced in the day-ahead market. Typically, these instances involve nomograms that may or may not be associated with specific outages. Regardless of the origin, the end result is that the CRR auctions do not reflect these changing conditions in transmission system and thus, these conditions are not priced accordingly in the auction. Once they are in the day-ahead market and congestion arises, a persistent divergence between markets is created.”