

**Comments of Powerex Corp. on  
Congestion Revenue Rights (CRR) Clawback Modification**

<b>Submitted by</b>	<b>Company</b>	<b>Date Submitted</b>
Mike Benn 604.891.6074	Powerex Corp.	May 4, 2016

Powerex appreciates the opportunity to submit comments on CAISO's April 13, 2016 Straw Proposal on Congestion Revenue Rights (CRR) Clawback Modification ("Straw Proposal"). Powerex commends CAISO staff for identifying and explaining to stakeholders how the current CRR clawback rule impedes real-time liquidity at the interties, and for taking action to craft a targeted modification to the rule that overcomes this barrier. Powerex is hopeful that implementation of the proposed modification will result in a material increase in the flexibility that CAISO is able to access on its interties in the real-time market.

**Powerex strongly supports CAISO's proposed modifications regarding re-bidding of day-ahead intertie awards**

Powerex agrees with CAISO's explanation of how the existing CRR clawback rule hampers CAISO's ability to make real-time adjustments to day-ahead intertie awards when conditions on the CAISO grid change. CAISO's explanation of the issue mirrors Powerex's experience as a participant at the interties in CAISO's day-ahead and real-time markets. Simply put, re-bidding day-ahead intertie awards in real-time—beyond the limited quantities permitted under the current clawback rule—can put significant amounts of day-ahead CRR revenue at risk. There is no way to manage this risk beyond simply submitting the day-ahead intertie award as a self-schedule in the real-time market (*i.e.*, it cannot simply be reflected in the real-time offer price).

While Powerex has advocated for changes in the CRR clawback rule that would permit additional real-time adjustment of day-ahead awards, it also recognizes the legitimate concern that intertie awards could be used as "implicit virtual bids" to influence day-ahead congestion prices in order to benefit a CRR position. Indeed, as a physical market participant that is subject to CAISO day-ahead and real-time congestion for its energy deliveries, Powerex has a strong interest in ensuring that CAISO congestion represents physical conditions of the CAISO grid and is not being distorted through implicit or explicit virtual bidding or through any other activity. Powerex therefore supports the broad concept of a settlement rule that reduces a market participant's ability to inappropriately benefit its CRR position through its physical and virtual market activity.

The particular challenge encountered in developing a workable CRR clawback rule is that it can be difficult or impossible to differentiate between (1) a day-ahead award that reflects real physical capability and was reduced in real-time as a result of a genuine change in system or economic conditions; and (2) a day-ahead award that was reduced in real-time as part of an implicit virtual transaction, and that was never intended for (or perhaps was never even capable of) physical delivery. A "perfect" CRR clawback rule would apply in all cases of the latter, but would never apply to the former.

A “perfect” CRR clawback rule is not realistically attainable, however. In practice, any CRR clawback rule will encounter scenarios in which it is triggered by non-problematic behavior (*i.e.*, “false positives”) and it will also encounter scenarios in which problematic behavior fails to trigger application of the rule (“false negatives”). But reducing one type of error will generally tend to increase the other type of error. A rule that sought to eliminate all false negative outcomes would likely eliminate all real-time offers to make adjustments to day-ahead intertie awards by entities that hold CRRs. Conversely, a rule that sought to eliminate all false positive outcomes would likely be so permissive as to be ineffective as a deterrent to efforts to inappropriately influence day-ahead congestion prices.

This stakeholder initiative therefore cannot be expected to produce a “perfect” CRR clawback rule. Rather, the goal of this initiative should be to pursue *improvements* over the current rule, even if the revised rule still leaves considerable room for improvement, as it inevitably will.

The Straw Proposal focuses on one very specific type of “false positive” outcome. Namely, when conditions on the CAISO grid change between the day-ahead and real-time markets, the current rule severely limits CAISO’s ability to reverse or “unwind” day-ahead intertie awards in response to those changed conditions. The proposed modifications address this problematic result by exempting from application of the CRR clawback rule any day-ahead imports (exports) that are both e-tagged and re-bid in real-time at a price equal to or less than (greater than) the day-ahead price. CAISO’s proposed modifications to Section 11.2.4.6 will allow additional economic intertie participation in the real-time market specifically when CAISO conditions have changed:

- A real-time price that is less than the day-ahead price is an objective and transparent indicator that the CAISO market has additional supply relative to its needs than it did in the day-ahead market. This is precisely the condition in which CAISO seeks to increase its ability to dispose of energy it procured in the day-ahead market, including through reductions to day-ahead physical import awards at interties.
- Similarly, a real-time price at an intertie that is greater than the day-ahead price is an objective and transparent indicator that the CAISO market has less supply relative to its needs than it did in the day-ahead market. This is precisely the condition in which CAISO seeks to increase its energy procurements, including through reductions to day-ahead physical export awards at interties.

Overcoming one of the discrete limitations of the existing rule would be an unequivocal improvement, both for the CAISO and for intertie participants. Powerex is well aware that there can be valid and independent reasons for a market participant to want to reduce a day-ahead award even if the real-time price exceeds the day-ahead price. The proposed modifications will still make such a transaction subject to application of the CRR clawback rule, and therefore the modifications will not increase intertie economic participation at prices above the day-ahead market price (for adjustments to imports). But this type of participation would do little to address CAISO’s specific need for real-time flexibility. That is, a day-ahead import that is re-bid at a price higher than the day-ahead price is less likely to clear the real-time market. It is effectively *requesting or requiring* CAISO to find an alternative source of supply, as opposed to *responding* to CAISO having more supply resources than anticipated in the day-ahead market (*e.g.*, due to VER generation above forecast levels). Similarly, a day-ahead export that is re-bid at a price

below the day-ahead price is less likely to clear the real-time market. It is effectively *requesting or requiring* CAISO to absorb the energy in real-time, as opposed to *responding* to CAISO having a greater need for energy in real-time than was anticipated day-ahead (e.g., due to VER generation below forecast levels).

CAISO's proposed modification has two additional favorable characteristics:

- It provides participants with clear advance notice of the real-time bid thresholds. A rule that attempted to capture market fundamentals outside of CAISO, in contrast, would not provide participants with certainty regarding the "safe" level of bid prices at the time real-time bids must be submitted (T-75).
- It is consistent with the core purpose of the CRR clawback rule, which is to discourage the inappropriate use of implicit virtual bids. In order to avoid triggering application of the proposed modified rule, a market participant must re-bid a day-ahead import at a price no higher than the day-ahead price. But this price will still result in the day-ahead award *not* being adjusted—and being required to be delivered—in approximately 50% of the time. In other words, it is not possible to regularly engage in implicit virtual bidding transactions while adhering to the price thresholds proposed by CAISO. But if the re-bid price threshold were increased above the day-ahead price level, the ability to engage in implicit virtual bidding while avoiding application of the clawback rule would also increase, thus defeating a core objective of the rule itself.

Powerex therefore strongly supports CAISO's proposed modification to the application of the CRR clawback rule to intertie awards adjusted in the real-time market. Powerex is hopeful that the proposed modifications will materially increase real-time intertie liquidity that is responsive to real-time conditions on the CAISO grid. The modifications appropriately balance CAISO's objective of removing an important barrier to real-time intertie participation while remaining consistent with the original rule's objective of discouraging implicit virtual bidding transactions by entities that hold related CRR positions. Powerex is mindful that additional opportunities to improve the CRR clawback rule remain, but this should not prevent CAISO from pursuing this clear and unambiguous improvement over the present rule.

#### **Powerex encourages CAISO to discuss its evaluation of the risks and benefits of reduced convergence bidding at major trading hubs**

CAISO also proposes to eliminate the CRR clawback rule's current exemption for convergence bidding at trading hubs and DLAPs. CAISO notes that convergence bidding at DLAPs and trading hubs can affect congestion, just as convergence bids at individual nodes, and sees no reason to treat them differently.

Powerex believes the stakeholder process would benefit from further examination of the risks and benefits associated with the proposed change.<sup>1</sup> While the CRR clawback rule has resulted in

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<sup>1</sup> Like any market participant, Powerex does not have access to complete information regarding actual convergence bidding behavior at trading hubs and DLAPs. It may well be the case that the proposed change to the CRR clawback rule is in response to actual activity observed by CAISO or DMM at these

relatively small sums of CRR revenues actually clawed back, this does not mean that the rule has had a small impact on market participation, or that extending the rule to aggregation points carries little risk. Powerex believes the risk of the proposed change is less about the total dollar of clawback charges associated with “false positives”, but rather that it might discourage beneficial convergence bidding activity from occurring in the first place. Convergence bidding provides all market participants with the ability to shift transactions between day-ahead and real-time markets. Absent convergence bidding, this ability would be primarily limited to load-serving entities.<sup>2</sup> In Powerex’s view, convergence bidding is most effective—and most beneficial to market efficiency—in converging the system marginal energy cost (SMEC), but is comparatively less effective in converging marginal congestion costs on specific elements of the network. Convergence bidding at the major NP and SP trading hubs—by virtue of being broadly mapped to multiple monitored constraints—would appear to be especially well-suited to promoting SMEC convergence. Changes in the CRR clawback rule that reduce this activity therefore carry a risk of making the commitment and dispatch of physical resources less efficient.

The potential benefit of the proposed rule is that it further discourages using convergence bidding to manipulate day-ahead market prices in order to benefit a CRR position. But the SP and NP trading hubs would appear to be the locations least susceptible to this type of behavior due to the large volume of convergence bidding activity at those aggregation points (as opposed to less liquid and/or congested locations). This indicates that concerns over use of convergence bidding to benefit a CRR position—which is the primary focus of the CRR clawback rule—may be sufficiently low at the large NP and SP trading hubs to support maintaining the current exemption to the rule’s application at those locations.

Powerex suggests that CAISO and DMM provide further discussion on the risks and benefits of extending application of the CRR clawback rule to all aggregation points, and that CAISO consider whether it may be appropriate to continue to exempt convergence bidding activity at the NP and SP trading hubs.

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aggregation points. If that is the case, then Powerex has no objection to steps that ensure CAISO markets remain competitive.

<sup>2</sup> Arguably, physical resources also have the ability to choose between day-ahead and real-time markets. However, the must-offer requirement of Resource Adequacy contracts, the bid mitigation provisions of the CAISO Tariff, and the fact that bidding by physical resources is constrained to the location and capacity of the resource all serve to limit how flexibly this ability can be used. Load-serving entities, by comparison, face little or no such limitations on the quantity or location of demand they bid into the day-ahead market.