

**Comments of Powerex Corp. on  
Contingency Modeling Enhancements Draft Final Proposal**

Submitted by	Company	Date Submitted
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Powerex appreciates the opportunity to comment upon CAISO’s August 11, 2017 Contingency Modeling Enhancements Draft Final Proposal (“Draft Final Proposal”). The Contingency Modeling Enhancements described in the Draft Final Proposal seek to incorporate into the market solution the need to be able to restore the grid to a secure state within 30 minutes following a contingency event. Currently, the market solution does not enforce this type of constraint, and instead operators rely on exceptional dispatch when necessary to position resources in a manner consistent with this requirement. As explained in its prior comments, Powerex supports enhancements that reduce the need for CAISO operators to take out-of-market actions and instead reflect relevant system requirements and constraints within the market optimization itself.

The Draft Final Proposal was issued following a prolonged hiatus in this initiative, which began more than four years ago.<sup>1</sup> The presentation of the issue, as well as the discussion of the solution, are complex and highly technical. Despite the complexity of the issue, and despite the limited stakeholder process that has occurred since this initiative was effectively “re-started,” the Draft Final Proposal indicates that CAISO management will present the proposal to the CAISO Board of Governors in September. Powerex is concerned that efforts to expedite the conclusion of this stakeholder process will provide stakeholders only a limited opportunity to review and comment on the proposal.

Moreover, the technical analysis presented by CAISO appears to indicate that expedited approval is not necessary. As explained in the Draft Final Proposal, the enhanced constraints did not bind in 11 of the 12 stressed scenarios evaluated by the CAISO, and did not bind during any hour of the two-week parallel operations period, indicating that “there may be a low likelihood of the constraint binding in practice.”<sup>2</sup> It would appear, then, that there is also a low likelihood that the problem being addressed by the proposed enhancements would be encountered. In Powerex’s view, the stakeholder engagement timetable should be extended to allow for additional modeling that provides for a more complete and representative assessment of the expected performance under the proposed enhancements.

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<sup>1</sup> The Issue Paper in this initiative was published in March 2013. See <http://www.aiso.com/Documents/IssuePaper-ContingencyModelingEnhancements.pdf>

<sup>2</sup> Draft Final Proposal at 80.

Of particular concern to Powerex is the Draft Final Proposal's impact on the effectiveness of Congestion Revenue Rights ("CRRs") for protecting against financial charges associated with physical deliveries into, out of, or within the CAISO grid. As explained in the Draft Final Proposal, "CRRs will settle only on the difference in the preventive constraint congestion components (represented in this proposal as "k" congestion)."<sup>3</sup> Physical deliveries of energy, however, will face financial charges associated with not only the preventive constraint ("k constraints"), but also the corrective capacity constraint ("kc constraints"). In other words, the Draft Final Proposal will result in physical users of the grid being exposed to a financial charge that *can no longer be hedged* through the available CRR instruments. The Draft Final Proposal recognizes that physical users of the grid will be exposed to such charges, but appears to view these concerns as unfounded given the results of the technical analysis.

The technical analysis provides only limited comfort, however. Indeed, if the technical analysis proves accurate, then the proposed enhancements will rarely, if ever, be needed at all. If the CAISO decides to proceed with the proposed enhancements, it thus presumably indicates that there is an expectation that these new constraints *could* bind with greater frequency than suggested by the technical analysis. That risk, however, is precisely what makes the CRR-related aspects of the current proposal so problematic.

If the *kc* constraints do bind, CRRs will offer no protection against the financial charges associated with those constraints. Powerex believes this risk will have at least two important effects:

- *First*, it will decrease the value of CRRs, as they will no longer provide a financial hedge against the charges associated with physical use of the grid. The likely result is reduced participation in, or less efficient outcomes from, the CRR allocation and auction process. The performance of the CRR allocation and auction process is already under review in a separate stakeholder process; the Draft Final Proposal in this initiative has the potential to exacerbate those challenges.
- *Second*, due to the increased financial risk associated with physical use of the grid, participants are likely to become less willing to enter into forward energy contracts. Sellers and buyers can currently enter into forward energy contracts at, say, the NP-15 trading hub and acquire CRRs to hedge the congestion risk between the trading hub and the generation resource (for the seller) or between the trading hub and the load zone (for the buyer). Under the Draft Final Proposal, however, parties to such a forward contract would face the unhedgeable risk associated with charges for the *kc* constraints to or from the trading hub.

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<sup>3</sup> Draft Final Proposal at 80.

For these reasons, Powerex urges the CAISO to reconsider its proposed approach and ensure that CRRs continue to provide a complete hedge against the financial charges associated with transmission-related constraints (*i.e.*, settle CRRs based on both the *kc* and *k* constraints). This would undeniably create revenue insufficiency when the *kc* constraints bind, which would need to be recovered. But the Draft Final Proposal does not actually avoid this problem, either; it just proposes to allocate the cost of the binding *kc* constraints to physical users of the grid. In Powerex's view, the allocation of these unknown and unhedgeable charges should be done in the manner least likely to distort participant behavior and/or undermine market efficiency. The Draft Final Proposal, unfortunately, would allocate this risk to the economic activity that is *most* price- and risk-sensitive: that is, to physical transactions, including internal and external suppliers.

Powerex believes that allocating the costs associated with binding *kc* constraints to load via uplift would minimize the potential for unintended consequences such as reduced performance of the CRR allocation and auction process, or reduced willingness to enter into forward energy transactions. If CAISO believes it is necessary to avoid increasing potential uplift charges to load, an alternative approach would be to reduce the quantity of CRRs released in the allocation and auction process.

Powerex believes that the Draft Final Proposal must be evaluated based on the anticipated outcomes that would occur if the *kc* constraints do bind with regularity. In that light, the impact of the proposal on the function and effectiveness of CRRs is highly problematic, and could significantly impede the ability or willingness of market participants—both sellers and buyers—to enter into forward energy transactions or to obtain CRRs.

Given that the technical analysis does not indicate that there is an acute need to implement the proposed enhancements immediately, Powerex urges CAISO to defer finalizing its proposal in this initiative until such time as the broader concerns regarding CRRs can be addressed. In particular, it may be advisable for CAISO to first make further progress in identifying whether any holistic changes to CRRs and/or the CRR allocation and auction process are needed. It could then incorporate contingency modeling enhancements in a manner that is both consistent with the purpose of CRRs as congestion price hedging instruments and with any modified CRR design and/or modified CRR allocation and auction processes.