

February 4, 2014

CAISO Board of Governors
CALIFORNIA ISO
P.O. Box 639014
FOLSOM, CA
95763-9014

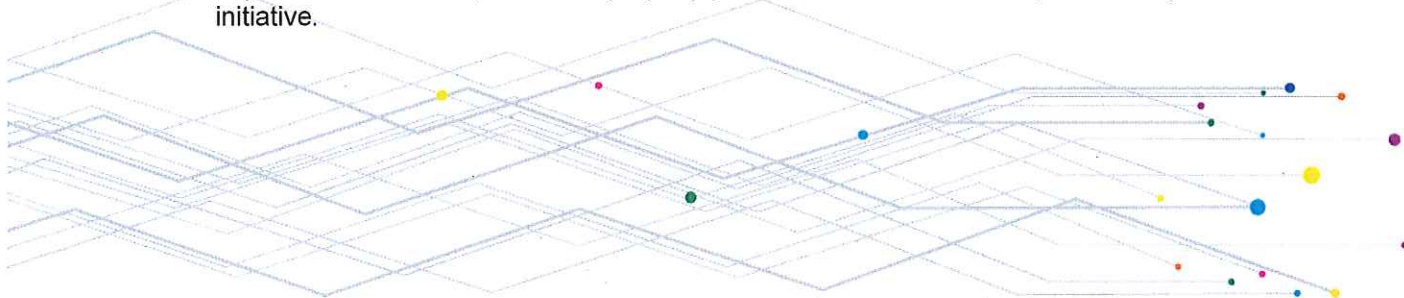
**RE: POWEREX COMMENTS TO CAISO BOARD OF GOVERNORS
REGARDING FULL NETWORK MODEL EXPANSION PROPOSAL**

Dear Board of Governors,

Powerex appreciates the opportunity to provide these comments to the CAISO Board of Governors regarding the proposed Full Network Model expansion ("FNM Expansion Proposal"). From the outset of this stakeholder process, Powerex has supported CAISO's objective of having greater visibility into external transactions affecting its grid and its markets, resulting in greater situational awareness – a key recommendation of the FERC/NERC report on the September 8th blackout event. Powerex also supports CAISO's objective of utilizing this external information in order to model loop flows on its system, both in real-time and day-ahead. Powerex supports CAISO's request for Board approval to begin these data collection and modeling efforts immediately.¹

At this time, however, Powerex does not support the CAISO's request for Board approval to make changes to its market rules and processes to incorporate the results of its new data collection and modelling efforts. Quite simply, this request is highly pre-mature. The FNM Expansion Proposal includes several measures to forecast loop flow on the CAISO-controlled grid, and to change the operation of the day-ahead and real-time markets in recognition of those forecasted loop flows. While it is the *intention* that these measures will result in a lower-cost approach to dealing with loop flow, CAISO has not presented any analysis to demonstrate that this will actually be the case. CAISO currently lacks an answer to even the most basic questions regarding loop flow, including its root causes, and the costs attributable to each underlying cause. The Market Surveillance Committee's Opinion highlights the limited understanding that CAISO currently has of the loop flow phenomenon:

¹ At the inception of this stakeholder process, CAISO represented that this initiative was entirely independent from the Energy Imbalance Market efforts. Nevertheless, the data collection and modelling tasks supported by Powerex may also be of complementary benefit to the EIM. To the extent CAISO urges adoption of other tasks in the FNM Expansion Proposal on the basis of their importance to the EIM, those are properly pursued in the EIM initiative, not in the present initiative.



“... it has been impossible for the CAISO to even analyze the cause of the observed “loopflows,” whether it is due to CAISO’s internal generation and load, interchange with adjacent transmission systems, or generation and load on external systems.”²

Not only has there been no analysis of the underlying causes of loop flow today, and the associated costs of each of the causes to the CAISO market, there has also been no analysis of the expected effectiveness of the measures included in the FNM Expansion Proposal. There have, however, been significant concerns raised by stakeholders, and by the CAISO itself, as to the challenges of forecasting loop flow on a day-ahead basis. CAISO previously characterized day-ahead forecasts of loop flow as “speculative,” while MSC stated that:

*“We also agree with stakeholders that, conceivably, the information that the CAISO will receive in the day-ahead market from the WECC may turn out **not** to be very useful in predicting real-time loopflows.”³*

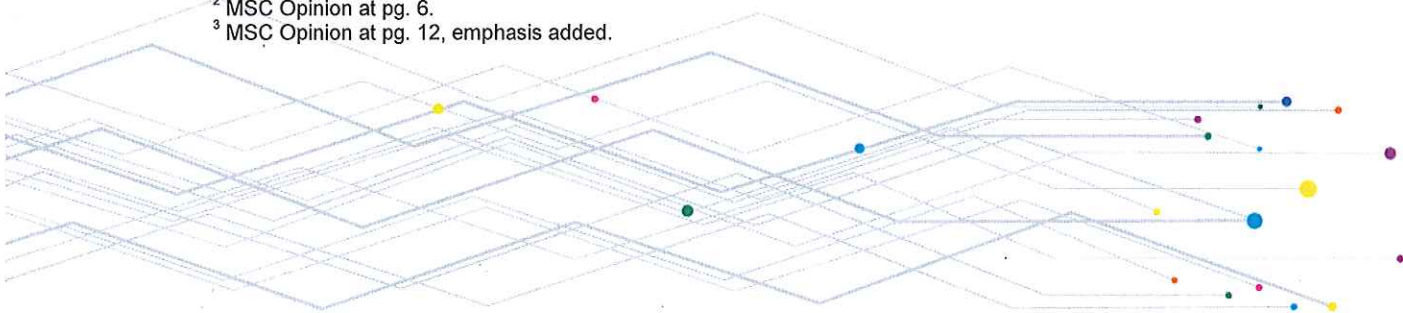
Given the above, it is undisputed that there remains much to be learned about loop flow on the CAISO-controlled grid, its causes, and the effectiveness of the proposed measures. Many stakeholders – including the CPUC, MSC and DMM – have cited the critical need for further analysis to determine whether the proposed solutions will actually result in an improvement over the *status quo*.

There have also been significant concerns raised in this stakeholder process about the unilateral nature of CAISO’s approach to addressing loop flow. Loop flow is an issue that affects all transmission providers and balancing authorities in the WECC. Like CAISO, other transmission providers are also required to rely on costly re-dispatch of their generation to resolve constraints due to loop flow. And also like CAISO, other transmission providers seek to minimize the need for this re-dispatch by limiting the transmission schedules they accept on both a day-ahead and a real-time basis. Dealing with loop flow is not unique to CAISO, and there would be much to be gained from a coordinated regional effort to address it. CAISO’s proposed unilateral approach does nothing to reduce loop flow in the region, nor does it result in a coordinated and equitable sharing of the costs of accommodating those flows on the Western grid. The proposed approach merely imposes on CAISO consumers and suppliers the cost of accommodating those flows on the CAISO grid in its markets. This is an inefficient outcome.

Additionally, CAISO’s proposed approach lacks compatibility with the transmission rights frameworks that exist outside of the CAISO grid by imposing a CAISO-only “physical limit” on top of the ATC limits coordinated with adjacent transmission providers. The proposed physical limits could serve to directly undermine the framework of the FERC Pro Forma OATT which forms the basis of the contract path model outside the CAISO market.

² MSC Opinion at pg. 6.

³ MSC Opinion at pg. 12, emphasis added.



The FERC/NERC September 8th blackout recommendations expressly contemplate increased coordination between transmission providers and balancing authorities. Rather than pursuing a regional leadership role to facilitate a coordinated solution to loop flow, however, the unilateral nature of the CAISO's proposal to address loop flow on the western grid, without any consideration of the impacts of its measures on neighboring systems, has the potential to be viewed as a major step backwards towards broader regional market coordination.

Simply put, the Board is being asked to approve changes that are broadly unsupported by stakeholders, and whose benefits are entirely speculative. Changes to market rules should be supported by sound analysis establishing the benefit of what is being proposed, not only when compared to the *status quo* but also in comparison to alternative measures. Such analysis has been entirely absent from this stakeholder process. The FNM Expansion Proposal would leave to CAISO's sole discretion whether or not (and how) to incorporate its evolving loop flow analysis into its market operations. While CAISO proposes to make periodic reports on its analysis, there is nothing in the FNM Expansion Proposal that would make implementation contingent on a satisfactory showing of expected benefits. This improperly shifts the burden onto stakeholders to demonstrate that the CAISO's approach is flawed or inadequate. However, the burden is, and appropriately should remain, on CAISO to demonstrate that its proposed approach is beneficial. It has not done so.⁴

Powerex shares the MSC's opinion that appropriate measures to deal with loop flow cannot be specified in advance of more complete information and study.⁵ To that end, Powerex supports that CAISO be authorized to develop and test methods for forecasting "base schedules" and associated flows on the CAISO grid, that it develop and test the accuracy of flow simulations under an expanded network topology, and that it develop and report on estimates of reductions in real-time congestion uplift relative to the *status quo*. Then, and only then, should CAISO seek additional Board authorization to pursue changes to the way it runs its markets.⁶

Sincerely,



Mike MacDougall,
Director, Trade Policy & IT

⁴ Moreover, given that CAISO expects to seek FERC approval to implement the proposed changes by October 1, 2014, and given that its pre-implementation analysis of loop flow will not occur until Summer 2014, it is virtually certain that CAISO will not be able to demonstrate in its filing to FERC that its proposed changes will be just and reasonable.

⁵ See, e.g., MSC Opinion at pg. 10 ("...the goal of developing more accurate loopflow projections will not be served by requiring the CAISO to specify in advance all of the methods it might use to adjust its models to better calibrate projected loopflows with actual loopflows.")

⁶ The additional time to consider and discuss implementation measures will also permit CAISO to address remaining ambiguities and inconsistencies in its current proposal and to pursue enhanced coordination with adjacent transmission providers regarding management of loop flow.

