

Comments of Pacific Gas and Electric Company Transmission Reliability Margin Issue Paper and Straw Proposal

| Submitted by | Company | Date Submitted |
|-----------------------------|--|------------------|
| Jeannette Woo, 415-973-5097 | Pacific Gas and Electric Company (PG&E) | January 18, 2012 |

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to participate in the stakeholder process for the California Independent System Operator's (CAISO) Transmission Reliability Margin (TRM) Issue Paper and Straw Proposal.

PG&E understands the benefits of the CAISO having a mechanism to anticipate transmission constraints in advance and reflect them and their impacts in market processes before schedules are awarded in the hour-ahead scheduling process. PG&E generally supports the CAISO's TRM proposal.

In addition, PG&E suggests another way in which the CAISO could help address operational issues related to transmission scarcity on key transmission pathways.

Comments

The CAISO's proposed use of a non-zero TRM has merit. The CAISO has chosen to address reasonable uncertainties it seeks to anticipate and attenuate potential market disruptions currently caused by actions required to redispatch when the uncertainty becomes reality. This is consistent with practices PG&E had in place to manage such uncertainties prior to the CAISO taking operational control of the system. When TRM is implemented, accounting for the uncertainty in transfer capability related to transmission constraints seems to have the effect of smoothing out Real-Time Market prices by ensuring adequately committed units are available to fill in for the energy not available through lost inter-tie capacity.

The two-hour timeframe the CAISO suggests seems reasonable, considering the time required to make available short start units (if needed) fit into the Short Term Unit Commitment timeframe. It also ensures that the TRM is implemented prior to the close of the RTM and Hour-Ahead Scheduling Process. The uncertainties that are managed with this tool generally increase as the timeframe is increased, so increasing the timeframe would only add to the uncertainty and

possibly lead to excessive or inadequate TRM declarations. For these reasons, PG&E cannot support evolution of a non-zero TRM into the Integrated Forward Market (IFM) at this point.

In its issue paper, the CAISO notes the disadvantages operating the grid with little or no transmission reserve.

"These revisions respond to concerns raised by market participants. The existing authority allows the ISO to cut interties to manage unscheduled flow, topology issues and simultaneous path flows only within operating hours, and does not allow the ISO to proactively manage these issues. Thus, a scheduling coordinator can be awarded an energy schedule on the intertie in HASP, and the ISO must then cut the schedule in realtime to manage the identified issues, even if they can be anticipated before the start of the operating hour. This can be very frustrating to market participants as their awarded schedules are curtailed at times when they have little recourse in finding alternative sources or sinks of energy, and increases the manual work for the ISO's operators, including procurement of imbalance energy to replace the curtailed schedules." [Page 4, CAISO "Issue Paper and Straw Proposal for Transmission Reliability Margin" dated December 21, 2011]

In addition to the near real time operational mitigation measures contemplated in the CAISO's straw proposal on TRM, the CAISO should consider other longer-term solutions that could be realized through the transmission planning process. For example, building a modest reserve capacity margin into key portions of the electric transmission grid could further mitigate the challenges and frustrations summarized above. The frustrations and potential inefficiencies experienced by market participants result from shortages of transmission capacity. With a modest margin of transmission capacity built into the system, the CAISO could lessen its burden of attempting to forecast real time operating uncertainties and reduce frustration among market participants adversely impacted by CAISO estimates of real time flows. Other market benefits may result from planning for a prudent reserve of transmission capacity. Examples of these benefits include: 1) lower market clearing prices for energy and ancillary services, 2) increased operating flexibility, and 3) more flexibility in procuring renewable resources from assorted locations. Because transmission is a relatively modest cost compared to the cost of energy supply could justify a planned transmission reserve.