Comments of Pacific Gas & Electric Company

Contingency Modeling Enhancements Straw Proposal

Submitted by		Company	Date Submitted
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Introduction

Pacific Gas & Electric (PG&E) offers these comments on the California Independent System Operator's (CAISO) Contingency Modeling Enhancements (CME) Initiative Straw Proposal.

The objective of the CME initiative is to develop an in-market mechanism to meet the Western Electricity Coordinating Council (WECC) standard for the CAISO to return flows on critical transmission paths to a reduced system operating limit (SOL) within 30 minutes after a real-time contingency leads to an insecure state. Today, the standard is successfully met by deploying Exceptional Dispatches (EDs) and enforcing Minimum Online Commitment constraints (MOCs). The CAISO proposes to replace these out of market tools by enforcing new "corrective" constraints in the optimization and to reflect the cost of meeting these new constraints with a Locational Marginal Capacity Price (LMCP).

PG&E appreciates the CAISO's work in the Straw Proposal to refine its CME design and supports some of the refinements. Specifically, PG&E supports two improvements from the Issue Paper:

- Operating reserves will be included in the corrective capacity supply as applicable. (PG&E would like additional definition on what is meant by "as applicable.")
- Offline generators can provide corrective capacity as long as it can start within the given time frame.

In these comments, PG&E recommends four design improvements and identifies three areas that need additional work by both the CAISO and stakeholders. PG&E will continue to evaluate the proposal against the current practices as further design details become available.

In addition to our specific recommendations, PG&E offers three guiding principles for the CME initiative.

1. **Cost Appropriateness**: The design must be carefully developed to avoid over-procurement of corrective capacity and overpayment for this capacity (e.g., limit the payments to resources' opportunity costs).
2. **Limit the Complexity**: Since the 2009 MRTU implementation, the CAISO market has undergone a near constant evolution such that even highly engaged parties have expressed difficulty with its complexity[1]; PG&E agrees that increasing and unnecessary complexity is not a beneficial outcome, and the CAISO should avoid complexity that has minimal return. Moreover, the CAISO is implementing other significant changes over the next year, including Pay for Performance Regulation, the FERC Order 764 reforms, and the Flexible Ramping Product. Given the additional complexity expected from these initiatives, the CAISO should seek to implement a less complex CME solution. This will help ensure optimization performance is not degraded and guard against unforeseen interactions with other market elements. Finally, this initiative is seeking to build an in-market solution to replace exceptional dispatches that account for approximately 0.25% of load.[2] This is a relatively small scale issue that calls for a small-scale, relatively simple solution.
3. **Interaction with EIM**: The scope of the CME initiative should be bound by the set of critical transmission paths in the CAISO Balancing Authority Area (BAA). Any market mechanism designed through this initiative shall not apply to transmission paths in other BAAs, even if they are within the foot print of an Energy Imbalance Market (EIM).[3]

PG&E Recommendations

PG&E offers four specific recommendations to the Straw Proposal design.

1. **Compensate Providers for Opportunity Cost Only**
   Compensation for corrective capacity should be limited to opportunity costs since there does not appear to be incremental costs, beyond the opportunity costs of providing energy or other ancillary services, to provide corrective capacity. Compensating providers beyond the opportunity cost would result in overpaying for this capacity and an unreasonable cost for California consumers.

[1] See WPTF presentation on *"Market Pricing, Transparency and Liquidity"* at the March 19, 2013 Market Surveillance Committee meeting (http://www.caiso.com/Documents/MarketPricingTransparency-Liquidity-StakeholderPresentationMar19_2013.pdf).

[2] In 2012, based on the DMM report, ED as a percentage of load averaged at 0.53% (page 11 http://www.caiso.com/Documents/2012AnnualReport-MarketIssue-Performance.pdf). In the same period, according to the CME proposal, the percentage of ED that is deployed to serve the SOL requirement is roughly 50% (page 18 http://www.caiso.com/Documents/2012AnnualReport-MarketIssue-Performance.pdf).

[3] The EIM is an active CAISO initiative, under which the CAISO would play the role of a Market Operator and be able to dispatch energy in real time across the entire EIM foot print.

2. **No Bids for Corrective Capacity**
   Related to the first recommendation, there should be no bids to provide corrective capacity. Since the LMCP is designed to pay providers their opportunity costs and there appears to be no incremental costs, there seems little need to implement a bidding feature. Moreover, by excluding a bidding feature, the CAISO simplifies its design and reduces the changes stakeholders need to implement for their systems.

3. **Use a 25-minute Ramping Window**
   The twenty minute ramping window contemplated by the CAISO unnecessarily shortens the actual time needed to respond, and, therefore, could disqualify resources that can meet the WECC requirement, potentially resulting in higher costs. In a contingency, the CAISO can immediately initiate a new Real-Time Dispatch (RTD) run with dispatch instructions occurring generally five minutes later. Given the CAISO's ability to initiate a new RTD, the CAISO should use a 25-minute ramping window instead of 20 minutes discussed in the Straw Proposal.

4. **Replenish Reserves via RTUC after the Contingency Ramp**
   Replenishments should occur naturally through RTUC runs to avoid unnecessary price spikes that might occur if procured during a SOL contingency ramp period. WECC standard BAL-STD-002-0 allows Transmission Operators 60 minutes to replenish operating reserves so immediate replenish the reserves is not required and will likely create unnecessary stress on the market.[4]

Other Design Issues

The next proposal should include more detail on the following design elements.

1. **Cost Allocation**
   The next proposal should provide more details on what an appropriate cost allocation method may be for capacity procured to meet the SOL requirement on the identified paths for the contingencies modeled.

2. **Local Market Power Mitigation (LMPM) Rules**
   PG&E supports recommendations made by the Department of Market Monitoring (DMM) to consider measures to detect and mitigate the potential exercise of market power as part of this initiative.[5] As the DMM notes, the proposed preventive-corrective constraints may increase local market power for some participants, and existing LMPM procedures apply only to energy bids into the market and would not be effective in mitigating local capacity market power.

[4] http://www.wecc.biz/library/Documentation%20Categorization%20Files/Regional%20Standards/BAL-STD-002-0.pdf (see section C. Measures)

[5] See DMM's comments, under section *"Potential for Local Market Power in Corrective Capacity"* http://www.caiso.com/Documents/DMM-Comments-ContingencyModelingEnhancementsIssuePaper.pdf

3. **List of Contingencies for Major WECC Paths**
   PG&E appreciates the CAISO providing the list of eight major WECC paths which have SOLs. However, the CAISO has not provided a list of contingencies it will consider when procuring corrective capacity. PG&E asks the CAISO to provide the list of contingencies for each of the eight major paths so stakeholders can better understand the scope of the initiative.