Comments of Pacific Gas & Electric Company

Variable Operations and Maintenance Adder Review

Submitted by	Company	Date Submitted
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Pacific Gas & Electric (PG&E) appreciates the opportunity to submit comments regarding the CAISO's January 8, 2019 Variable Operations and Maintenance Cost Review.

PG&E would like to highlight the importance of the VOM cost adder beyond the use in generating default energy bids and does not see the justification on the reasons behind the overall large reduction from the existing values.

Based on the description of the previous VOMs and stakeholder comments on the call, and the discussion below, CAISO should leave the existing values in place. Additionally, the CAISO should allow contract documentation to substantiate use of a higher VOM, to be consistent with the evaluation process for Minimum Load and Startup MMA's. Just as Nexant had challenges between differentiating different categories of costs in the studies they examined, certain contracts and facilities have categorized their variable components differently. These types of costs are viewed as a total package and are not subject to a universal categorization. The way that Nexant has broken down the costs does not apply to all facilities.

1. Clarity on the Use of VOM Cost Adder

Other than the default energy bid calculation, it is PG&E's understanding that the VOM cost adder is also used in the proxy option calculation of minimum load commitment costs, as well as the minimum load cost bid cap. CAISO should include these uses in future drafts.

2. Clarity on the Definition of the Existing VOM Adder

The changes in the CAISO tariff over the past few years, including the uses of VOM and major maintenance adders, do not substantiate the decrease in the default VOM levels. In past filings, the CAISO specifically stated that the previous VOMs did not include major maintenance. Therefore, the previous numbers used the same basis as the current policy (i.e. without major maintenance cost).

The quotes below reinforce that the basis for the previous VOMs did not include major maintenance costs, so the decrease in VOMs is not justified by a change in policy.

In its 2012 filing to FERC, the CAISO stated,

> Utilicast benchmarked other independent system operators and regional transmission organizations and drew upon major studies to discern what should appropriately be included in variable operations and maintenance costs, and the changes proposed in this tariff amendment are based on those conclusions. Major maintenance costs, on the other hand, are periodic undertakings rather than costs incurred on a continual basis. Accordingly, variable operations and maintenance cost values should not include major maintenance costs.

In its 2011 CAISO Board of Governors memorandum,

> Major maintenance activities are periodic undertakings rather than costs that are incurred on a continual basis as the resource is operating. It is for this reason that the ISO's definition of operations and maintenance costs has not included major maintenance. While Management recognizes that generating resources do face major maintenance costs, we determined that including those costs in the variable operations and maintenance cost values would be a wholesale change to the ISO's definition of that cost component. Such a change was well outside the scope of this effort which was simply to update the operations and maintenance cost values as currently defined.

3. Not Enough Supporting Data for Nexant's Proposed VOM Adders

The values of the bottom up methodology are questionably low and prone to leave out costs. Nexant repeatedly stated its challenges in finding data and only used a few sources for each category, sometimes, only using one. Furthermore, as pointed out on the call, the costs are not California specific. Therefore, PG&E suggests that the CAISO leave the existing values in place.

4. Simplification of Generator Categories

Nexant has created too many categories for gas-fired generators. PG&E suggests maintaining the existing categories (Combined Cycle/ Steam and CT/ Recip). The proposed categorizations are too narrow to capture all of the variations in the portfolio. For example, gas-fired reciprocating engines do not seem to be included.