



Price Performance Analysis

| Submitted by | Organization | Date Submitted |
|-------------------------|--------------------------|-------------------------------|
| Simon Ou (415-973-6125) | Pacific Gas and Electric | April 18 th , 2019 |

Please provide your organization's comments on the following issues and questions.

1. Scope

The Price Performance Analysis effort is intended to ensure ISO markets produce prices that incentivize performance and reflect system conditions. Please provide your organization's feedback on the scope of this effort. Specifically, what should be included, and what should be excluded. Please explain your rationale and include examples, if applicable.

PG&E appreciates the opportunity provide comments to the CAISO White Paper on Price Performance Analysis. PG&E requests clarification on the objective of this analysis. The white paper notes, "[t]he main concern consists of price deviations across the different CAISO's markets, which will be the main focus of the CAISO's analysis." PG&E questions whether deviation between Day Ahead and the Real Time markets is a truly fundamental problem and whether price convergence to what degree should price convergence be considered a marker for market efficiency. As the White Paper indicated, there is an array of different operator actions that results in a different supply stack in these different markets. Given those differences, price deviations between those different markets are expected. Thus, PG&E recommends that the analysis simply focuses on how each contributing factor, such as load bias, contributes to price deviation and by how much.

2. Drivers

The Price Performance Analysis initiative white paper examined the potential drivers to be included within the analysis. Please provide additional drivers to consider, if any. Please explain your rationale and include examples, if applicable.

PG&E does not have any additional drivers for the CAISO to examine. Instead, PG&E recommends CAISO reruns the markets by adjusting various inputs so that it has the counterfactual to proper quantify how different operator actions and design features contribute to the price divergence between different markets.

3. Data Requests

Please provide your organization's feedback on any specific data requests. Please explain your rationale and include examples, if applicable.

PG&E believes it'd be helpful for CAISO to release some of its dataset for stakeholders to verify and evaluate CAISO's analysis moving forward. More specifically, PG&E would appreciate looking at hourly load bias data as well as the exceptional dispatch data—broken down by locational versus system.

Additional comments

Please offer any other feedback your organization would like to provide on the Price Performance Analysis white paper.

Given the delay of more urgent initiatives (e.g., System Market Power Mitigation), PG&E questions whether this analysis should be prioritized and whether time and resources would be better spent elsewhere.