



Comments of Pacific Gas & Electric Company
PacifiCorp-ISO Energy Imbalance Market Benefits Study

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Pacific Gas & Electric (PG&E) appreciates the CAISO’s work on Energy Imbalance Market (EIM) Benefits Study and the conference call to discuss the results and answer questions. This study is a good start in understanding the potential benefits of a CAISO-PacifiCorp EIM.

PG&E supports the CAISO’s EIM stakeholder process to vet the benefits, costs, and design details of the CAISO-PacifiCorp EIM. PG&E’s support of an EIM will depend on achieving a level of comfort that the benefits to customers will be commensurate with the costs and risks that will be incurred by customers. Overall, PG&E sees the potential opportunity for an EIM to benefit each region, but we will be seeking assurances that the benefits clearly outweigh the costs.

To help stakeholders better understand the Study’s simulations and assumptions, PG&E asks the CAISO to provide additional summary information from the Study. Much of requested summary information is similar to the information provided in the recent EIM study by the National Renewable Energy Laboratory¹. Monthly summaries (versus annual) will provide greater insight about the simulations. Given that most of this request is summarizing information from existing simulations, we believe it can be met without requiring additional model runs. PG&E will likely have additional questions about the Study as we develop a deeper understanding of the EIM and the design takes shape.

Request for Additional Study Data

Understand EIM’s impact on generation and imports/exports

1. Monthly energy production by generation type for each BA for the Benchmark and the EIM Cases.
2. Monthly energy transfer between the BAs for the Benchmark and the EIM Cases.

¹ <http://www.westgov.org/PUCeim/documents/drftNRELba.pdf>

3. Monthly average capacity factors for fossil units in each BA for the Benchmark and the EIM Cases.
4. Monthly average number of starts and stops for fossil units in each BA for the Benchmark and the EIM Cases.
5. Annual CO₂ emissions in each BA for the Benchmark and the EIM Cases.

Understand how reserve requirements and how hydro units meet the requirements

6. Monthly minimum, maximum and average contingency and flexibility reserves for each BA for the Benchmark Case and the combined area for the EIM Case.
7. Monthly average percentage of the contingency and flexibility reserves satisfied with hydro resources for the Benchmark and the EIM Cases.

Understand the timing of the CAISO renewable curtailment

8. Information on the monthly and hourly distribution of the 120 GWh of renewable generation curtailment in the Benchmark Case.