DOCKETED	
Docket Number:	24-IEPR-03
Project Title:	Electricity Demand Forecast
TN #:	260807
Document Title:	PG&E Comments RE IEPR Draft Forecast Results Workshop
Description:	N/A
Filer:	System
Organization:	PG&E
Submitter Role:	Public
Submission Date:	12/23/2024 3:17:17 PM
Docketed Date:	12/23/2024

Comment Received From: Joshua Harmon
Submitted On: 12/23/2024
Docket Number: 24-IEPR-03

PG&E Comments RE IEPR Draft Forecast Results Workshop

Additional submitted attachment is included below.

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23 December 2024

California Energy Commission
Docket Number 24-IEPR-03
715 P Street
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RE: IEPR Commissioner Workshop on Draft Forecast Results

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to comment on the California Energy Commission's (CEC) IEPR Commissioner Workshop on Draft Forecast Results held on December 12, 2024. PG&E commends the CEC's dedication to thorough analysis in the IEPR and stakeholder engagement throughout the IEPR process, including this opportunity to provide feedback.

Below, PG&E offers five comments, representing requests and recommendations to improve the IEPR. Some of these comments mirror those we have made in the past (e.g., for 2024 IEPR workshops), but are still relevant in thinking about the 2024 IEPR Update.

First, PG&E recommends the CEC review key forecast assumptions that have high uncertainty, including future data center project capacity and rooftop PV costs.

PG&E applauds the CEC's rapid development of a new load modifier forecast for data centers, including the continued collaboration and open feedback between CEC and electric utilities. The status of data center projects and the energy demand associated with these projects are changing at an unprecedented pace. This rapid evolution presents significant uncertainty that may not be fully captured in current IEPR assumptions. PG&E encourages the CEC to further evaluate these assumptions and develop an annual stakeholder-informed mechanism for collecting standardized data from all load-serving entities and updating forecast assumptions. This annual update would allow the IEPR to more effectively account for emerging trends and changes in data center development.

PG&E also recommends the CEC continue to evaluate its assumptions around rooftop PV costs on an annual basis. The cost assumptions in the 2024 IEPR Forecast are approximately 20% higher than the cost in the 2023 IEPR forecast, reducing PV deployment by a commensurate amount. Given the forecast model's high sensitivity to technology costs and the high uncertainty of cost data, this significant change warrants additional analysis around the underlying assumptions and discussion with stakeholders.

Second, PG&E recommends further distinguishing the differences in assumptions between the Planning Forecast and Local Reliability Scenario.

As with the 2023 IEPR forecast, the underlying assumptions for the 2024 IEPR forecast resulted in the scenario set, (i.e., the planning forecast and local reliability scenario), being much more similar, in terms of overall system sales and peak, than in forecast vintages prior to the 2023 IEPR. Considering the high degree of uncertainty associated with data center growth, DER adoption, emerging policy, and the resulting impacts on electricity demand, PG&E believes it is valuable to have IEPR scenarios that are substantively different to reflect the range of uncertainty. To that end, for the 2025 IEPR, PG&E recommends that the CEC consider opportunities to represent more of that uncertainty in the planning forecast and local reliability scenario. Another opportunity to represent this uncertainty and create greater variation between the Planning Forecast and Local Reliability Scenario would be to use an Additional Achievable Fuel Substitution scenario like the Gradual Transformation scenario in the Planning Forecast.

Third, PG&E encourages the CEC to consider in the load modifier forecasts the potential impact of load flexibility to manage peak demand.

Many distributed energy resources have the ability to shift load away from peak demand. This represents a substantial, albeit highly uncertain opportunity to manage the growth of peak demand to the benefit all Californians. PG&E expects that a material share of customers will use the flexibility to shift load – especially via electric vehicles and heat pump water heaters – to reduce their energy bills. For the 2025 IEPR, PG&E recommends that the CEC consider how load flexibility might change the hourly impact of load modifiers. Given the CEC's expertise with the "Additional Achievable" modeling framework – already applied to energy efficiency, fuel substitution, and transportation electrification – PG&E recommends the CEC consider if it would be appropriate to apply the Additional Achievable framework to load flexibility, for example, to create Additional Achievable Load Flexibility scenarios.

Fourth, PG&E has previously made comments about and would like to reiterate the need to forecast potential new large industrial loads, such as the electrification of today's industry in addition to new industries like cryptocurrency mining and hydrogen production.

PG&E recognizes that forecasting these new industrial loads is challenging and will likely require substantial investment of resources; however, there is reasonable likelihood that these topics could have major impacts on a decarbonized energy system in California. Additionally, some of these new industrial loads are flexible and could play a meaningful role in improving the efficiency and reliability of California's electricity grid.

PG&E recommends that the CEC expand its 2025 IEPR scope to include additional scenarios for potential new large industrial loads, cryptocurrency mining, and hydrogen production. One additional recommendation is that the CEC incorporate into the 2025 IEPR electricity forecast update some degree of electricity impact from the hydrogen production necessary to fuel hydrogen fuel cell electric vehicles, the population of which the CEC is already forecasting. Governor Newsom's July 2024 announcement of the renewable Hydrogen Hub in California increases the importance and relevance of developing this forecast.

Fifth, PG&E recommends any forecast of community solar consider legislative and regulatory precedent as well as follows a process that allows for stakeholder engagement and input.

First, PG&E would like to request that any forecast of community solar provide a clear definition of the term "community solar" due to the robust manifestations of DER projects that use could utilize that

moniker. In addition, the CEC should coordinate with and account for ongoing work at the California Public Utility Commission (CPUC) on this topic. For example, in D.24-05-065 within the Green Access Programs proceeding, the CPUC recently made several determinations and, as part of that decision, directed the development of the "Community Renewable Energy Program" in which community solar projects would be treated as wholesale resources. PG&E asserts that it would be inappropriate to consider future projects within this or similarly compensated programs as load modifying, as their energy will be purchased by the LSEs utilizing a wholesale tariff and PPA to serve load. Forecasting such projects as load modifiers would result in counting their production twice, overstating the available capacity on the system and threatening reliability. Given the complex legislative and regulatory history of community solar in California, PG&E requests the opportunity for stakeholders to engage and provide input if the CEC decides to forecast community solar.

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PG&E appreciates the opportunity to respond to this workshop and looks forward to continuing to collaborate with the CEC. Please reach out to me if you have any questions.

Sincerely,

Josh Harmon
State Agency Relations