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PGE Comments on 2020 IEPR Draft Scoping Order

Additional submitted attachment is included below.
January 31, 2020

California Energy Commission
Docket Unit, MS-4
Re: Docket No. 20-IEPR-01
1516 Ninth Street
Sacramento, California 95814-5512


Pacific Gas and Electric (PG&E) appreciates the opportunity to submit these comments on the draft Scoping Memo for the California Energy Commission’s (CEC) 2020 Integrated Energy Policy Report (IEPR). The IEPR is the leading energy policy report for the State of California and profoundly impacts energy policy discussions. PG&E supports climate-related policies that transition the state’s energy systems away from fossil fuel consumption. PG&E agrees that transportation should be prioritized in the 2020 IEPR Update, being the largest source of greenhouse gas (GHG) emissions in California, accounting for around half of the state’s emissions, and the major contributor to the state’s poor air quality.

PG&E also recognizes that the California Energy Demand Forecast is a critical component of the IEPR and an essential planning tool for future energy policies. PG&E appreciates the continued efforts of the CEC to engage stakeholders to discuss and refine components of the forecast. To that end, PG&E provides the following comments on the Draft Scoping Memo:

Electricity and Natural Gas Demand Forecast

Transportation

PG&E greatly appreciates CEC’s acknowledgement of stakeholders’ comments and the subsequent integration of feedback in the scope of the future 2020 IEPR electric transportation forecast. PG&E also recognizes the great value of including a charging infrastructure analysis in CEC’s scope of work for the next forecasting cycle. In future iterations of the electric transportation energy demand forecast, PG&E would like to encourage CEC to provide an assessment of carsharing electrification in the framework provided in SB 1014.

Solar PV

PG&E supports the effort to improve the solar PV modeling and suggests that the CEC focus its efforts specifically on re-quantifying the capacity factor for solar PV. Comparison of the CEC’s PV generation
profiles to PG&E’s generation profiles suggests that the CEC’s generation profiles/capacity factors may significantly overestimate BTM PV system generation.

In the Revised 2018-2030 California Energy Demand (CED) Forecast report the CEC cites a 2013 E3 Impact Evaluation as the basis for its solar PV capacity factor\(^1\). During the August 15, 2019 workshop, the CEC reiterated that this study continues to be used in the 2019-2030 Preliminary CED Forecast. This critical input assumption is likely outdated and should be revisited given the availability of more metered rooftop PV systems, which allow for simulated results to be calibrated to actual performance data. The upcoming release of the Itron study “California Solar Initiative Final Measurement and Evaluation Report” should inform the CEC’s modeling assumptions about BTM PV system generation. PG&E looks forward to collaborating with the CEC as it seeks to update its PV generation profiles.

**Behind the Meter Energy Storage**

During future forecasting cycles PG&E recommends the following methodology modifications:

For the adoption forecast, incorporate economic- and market-based analysis that considers projected changes in battery costs, energy rates, incentives, and addressable markets, with incremental adoption following a Bass diffusion process. Incorporating these factors would more realistically represent the value proposition of storage systems for prospective adopters and, consequently, would improve the accuracy of the forecast.

**Building Electrification**

PG&E appreciates that the CEC has conducted an exploratory study to quantify the potential impacts of fuel substitution in the building sector. Although the CEC has not included these results in its 2019 Revised forecast, PG&E encourages the CEC to include building electrification in its future energy demand forecast. PG&E looks forward to collaborating in CEC activities furthering developments in this area.

**CCA Forecast Must Capture the Dynamic Market Conditions**

PG&E reiterates that a more robust and accurate representation of the uncertainty surrounding the long-term CCA forecast is critical to enable effective planning and to inform related policies. PG&E suggested that the CEC prioritize the development and adoption of a predictive modeling approach that reflects the dynamic and rapidly growing CCA market beyond the year-ahead.

The CEC applies an *ex post* deterministic forecast method that accounts only for currently established CCAs and neglects any potential for future expansion of such CCAs. It also erroneously assumes that new CCAs will not form and that existing CCAs will not expand.

In the absence of forecasts that better account for continued CCA growth, planning decisions based on the CEC’s forecasts may result in PG&E procuring more energy resources than necessary for its bundled customers, adversely impacting rates if non-bypassable charges (NBC) are not effective in maintaining indifference. Adoption of a method that appropriately accounts for the uncertainty and growth potential of

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CCAs can mitigate potential cost shift to bundled Utility customers and community choice aggregation customers.

**Microgrids**

PG&E is committed to grid investments, technology investments, and process streamlining to improve reliability and increase resiliency as we adapt to the impacts of climate change, particularly increased wildfire risk. In this context, PG&E is pursuing a range of resiliency and reliability improvements to provide equitable benefits to communities. PG&E is also partnering on innovation pilots, which have been supported through CEC initiatives—including the Redwood Coast Airport Microgrid (RCAM)—to advance the deployment microgrid technologies and tariffs. A key focus of ongoing microgrid activities and proposals currently before the CPUC is to mitigate the customer impacts of PSPS through permanent, temporary, and community-enabled, front-of-the meter microgrid solutions.

PG&E encourages continued alignment and streamlining of CEC initiatives in light of new and significant activities under the CPUC Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies and Wildfire Mitigation Plans.

PG&E appreciates the CEC staff’s ongoing efforts to engage stakeholders and looks forward to continued engagement in the development of the 2020 IEPR update.

Sincerely,

/s/

Jessica M Melton