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PG&E Comments Hourly Temp Data on Cal-Adapt

Additional submitted attachment is included below.

Pacific Gas and Electric Company

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VIA ELECTRONIC FILING

California Energy Commission

Docket Unit, MS-4
Re: Docket No. 19-ERDD-01
1516 Ninth Street
Sacramento, California 95814-5512

Re: Pacific Gas and Electric Company Comments on Hourly Temperature Data on Cal-Adapt Workshop

I. Introduction

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to submit comments regarding the California Energy Commission (CEC) Workshop on Hourly Temperature Data on Cal-Adapt, held Wednesday, December 18, 2019. PG&E enthusiastically supports the CEC's facilitation of high-quality historical and projected weather and climate data, as such data enables more effective utility planning. This information is critical in empowering California investor-owned utilities (IOUs) to prepare to continue providing safe, clean, affordable, and reliable energy even as the state faces more frequent and severe climate-driven natural hazards. PG&E's responses are provided in question and answer format below.

II. Responses to Workshop Questions

1. **What are energy sector user needs and potential uses for the new, curated repository of hourly weather data from 1973-2019?**

Energy sector users, and their regulators, will benefit from having a high-quality, detailed, third party-sourced repository of historical hourly weather data. In particular, electric load forecasting will benefit from this dataset because electricity usage patterns are strongly driven not just by daily temperatures but by the pattern of hourly temperatures. Much of the currently available data is confidential (or otherwise use-constrained) and varies from source to source. A publicly available quality reference dataset will allow load forecasting models to be easily shared with and validated by regulators. It will simplify the fitting of temperature-driven models and allow standardization of backtesting. Additionally, this dataset may serve as a useful validator when considering which global climate models (GCMs) to prioritize for inclusion in California's Fifth Climate Change Assessment.

2. **How do energy sector users currently obtain similar data?**

PG&E has created and utilized a 30-year historical weather dataset derived from a model reanalysis using the PG&E version of the Weather Research and Forecasting (WRF) model. This dataset is at a 3 km resolution and was created using the same model used for operational forecasting to allow for analysis in comparable terms. PG&E is currently looking into improvements of that model, which will result in a new 30-year climatology and a higher resolution. In the context of climate projections, PG&E relies on the historical data associated with Cal-Adapt.

3. What is the frequency at which these datasets should be updated?

PG&E suggests that the historical hourly temperature dataset should only be revisited if and when additional high-quality historical weather data is made available that might allow for further refinement.

For forward-looking climate projections, these data should be updated in line with the development of future California Climate Change Assessments, which utilize outputs from the Coupled Model Intercomparison Project (CMIP), the world's premier coordinated global climate modeling effort.

4. How should hourly temperature data be made available on Cal-Adapt for download and for supporting further analysis?

PG&E's first priority is access to the hourly temperature projections to conduct additional analysis as needed; however, it would be very helpful to be able to group the data by utility-relevant geographic delineations; for example, distribution planning area. PG&E would be happy to work with the Cal-Adapt team to make this possible.

III. Conclusion

PG&E reiterates the Company's support of CEC-funded research into high-quality, highly granular climate and weather data. PG&E looks forward to gaining access to the data, and hopes that further analysis will drive insights that help maintain a safe, clean, affordable, and reliable energy system.

Sincerely,

Jessica M Melton