REGULATORY EXPERTISE: ENERGY SOLUTIONS

APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39E) FOR APPROVAL OF ITS DEMAND RESPONSE PROGRAMS, PILOTS AND BUDGETS FOR PROGRAM YEARS 2023-2027.

And Related Matters.

APPLICATION 22-05-002
APPLICATION 22-05-003
APPLICATION 22-05-004

ADMINISTRATIVE LAW JUDGE’S RULING
REQUESTING COMMENT ON PUBLIC RELEASE OF DEMAND RESPONSE POTENTIAL STUDY DATA

Pursuant to the Assigned Commissioner’s Ruling issued in this proceeding on January 27, 2023, this ruling seeks party comment on whether certain anonymized load shape data files associated with clusters of customers from the Phase 4 Demand Response (DR) potential study are sufficiently aggregated to meet applicable customer data confidentiality standards such that they can be safely released to the public accompanied by the modeling code, in the form of a report that represents findings based on the data, as well as in the form of data files. Parties may file opening comments no later than April 28, 2023, and reply comments no later than May 19, 2023. Attachment 1 to this ruling provides additional information regarding the Phase 4 DR potential study data.

1. Demand Response Potential Study Data

Since 2015, California Public Utilities Commission (Commission) staff have overseen Lawrence Berkeley National Laboratory’s (LBNL) production of three...
Demand Response Potential Studies and related research. Through this body of research, LBNL developed a supply curve modeling framework to represent the availability of system-level grid services from distributed resources in the three large investor-owned utilities (IOU) territories. The studies assess the cost of enabling flexible loads and the value created from aggregating a diverse set of flexible loads. Highlights include the 2025 California Demand Response Potential Study released in March 2017, which created a new DR services taxonomy of Shape, Shift, Shed and Shimmy, and a July 2020 report that forecasts the size and cost of the expected resource-base of a load shift service through 2030. (Studies can be found at: https://buildings.lbl.gov/potential-studies.)

These studies have been used by Commission decision-makers and staff in formal proceedings and internal analysis, and incorporated into reports by the California Energy Commission (CEC). In addition, the Commission’s Integrated Resource Planning proceeding regularly incorporates the findings of these potential studies in long term energy supply procurement analysis.¹ More recently, California Senate Bill (SB) 846, which amends the Public Resources Code to extend operation of the Diablo Canyon Powerplant, directs the CEC in consultation with the Commission and California Independent System Operator to adopt a goal for load shifting to reduce net peak electrical demand based on the findings of the LBNL Phase 3, July 2020 study. “In developing this target, the commission shall consider the findings of the 2020 LBNL report on the Shift Resource through 2030 and other relevant research.”²

¹ See Rulemaking 20-05-003.
² SB 846, adding Public Resources Code Section 25302.7, filed September 2, 2022.
Decision (D.) 12-04-045 first directed Commission staff to oversee DR research and authorized $3 million for the studies.\textsuperscript{3} D.14-12-024, which adopted a settlement agreement involving DR goals, first directed Energy Division staff to conduct a DR potential study. That decision reasoned: “The Commission considers the DR potential, market assessment and technology studies, and the policy and planning support studies important to the success of DR programs. Because these studies (frequently referred to as research studies) informed Commission policies on DR programs, we direct that these studies be overseen directly by Commission staff.”\textsuperscript{4} D.17-12-003 authorized an additional $1 million per year for 2018-2022 for DR research, including the DR potential study and its integration with the Energy Efficiency Potential & Goals study. The decision noted, “The 2017 potential study was a successful exercise and provided valuable information to the Commission as well as the industry.”\textsuperscript{5}

The Phase 4 DR potential study will project future potential for Shed and Shift DR in California through 2050, based on hourly data from more than 400,000 interval meters of customers in the three IOU service territories. LBNL completed the Phase 4 study in December 2022, and the study is currently under Commission Energy Division review.

1.1. Ruling Seeking Party Comment on Confidentiality Issues Related to Lawrence Berkeley National Laboratory Data

This ruling seeks party comments on the potential public release of the data utilized in the Phase 4 study. In providing comments, parties should use

\textsuperscript{3} D.12-04-045 at 168-169.
\textsuperscript{4} D.14-12-024 at 20.
\textsuperscript{5} D.17-12-003 at 163
LBNL’s attached description of the data aggregation methods they used in producing two work products: the pending study report and the anonymized customer cluster load shape data files (Attachment 1). Attachment 1 also includes a description of the modeling code LBNL used to develop the customer cluster load shapes and the load shape potential. Along with the study report, the customer cluster load shape data, DR potential results, and prototypical daily load shapes by sector, LBNL plans to release this modeling code, which LBNL says is owned by the Regents of the University of California.

In addition, parties should consider existing applicable law and past Commission decisions on data confidentiality, including those related to past LBNL research, and whether the data aggregation undertaken in the current study sufficiently meets their requirements. Section 8380 of the California Public Utilities Code provides broad protection for the privacy and security of utility customer information generally and regulates the disclosure by utilities of such customer information. D.14-05-016 provides more detailed guidance regarding the potential release of data removed of personally identifiable information when the data cannot be reconnected to individual customers and if the data is not otherwise subject to legal protections from disclosure.

Parties are asked to provide comments on the potential release of this data and discuss what, if any, privacy or confidentiality issues are presented by its release, and whether any steps could be taken to remedy such concerns, such as additional layers of aggregation and/or masking of the data. Comments on the LBNL data release and confidentiality issues are due by April 28, 2023. Reply comments may be filed by no later than May 19, 2023.

6 See D.06-06-066 and subsequent related cases interpreting confidentiality.
IT IS RULED that:

1. Attachment 1, titled “Development and use of cluster load shapes for the Phase 4 DR Potential Study,” is added to the proceeding record. Parties are directed to use the document to inform their testimony and comments regarding the potential release of Lawrence Berkeley National Laboratory Phase 4 Demand Response Potential Study data.

2. Parties shall file comments on the potential public release of data related to the Phase 4 Demand Response Potential Study conducted by the Lawrence Berkeley National Laboratory by April 28, 2023. Reply comments shall be due by May 19, 2023.

This order is effective today.

Dated March 30, 2023, at San Francisco, California.

/s/ GARRETT TOY
Garrett Toy
Administrative Law Judge