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Public Advocates Office Comments on Senate Bill 846

Additional submitted attachment is included below.

May 3, 2023

California Energy Commission
715 P Street
Sacramento, CA 95814

RE: Lead Commissioner Workshop on SB 846 Preliminary Load Shift Goal

I. INTRODUCTION

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) appreciates the opportunity to provide comments on the information presented at the California Energy Commission's (CEC) Lead Commissioner Workshop on the Senate Bill (SB) 846 Preliminary Load Shift Goal (Workshop). The Workshop held on Wednesday, April 19, 2023, raised several questions and concerns that should be considered in developing the initial report on a preliminary load shift goal (Report) in the Energy System Reliability proceeding.[1] Cal Advocates' comments are focused on the following issues:

- Clarify information and assumptions for the CEC's preliminary load shift goal and upcoming Load Shifting Report (Report);
- Standardize load shifting evaluations to best inform realistic load-shift goals;
- Provide CEC funding to offset the costs of load flexibility technology, and to encourage participation in dynamic pricing tariffs and pilots; and
- Clarify how the load shift goal will be applied.

II. DISCUSSION

A. Clarify Information and Assumptions

We recommend that the CEC provide a clear explanation for each of the assumptions used in the goal-setting framework and how those assumptions lead to the preliminary load shift goal in the Report. For example, at the Workshop, the CEC discussed assumptions of 25% enrollment by demand response (DR), adopted with 75% of those customers using technology. However, the presentation provided no details about what information was used to arrive at the

[1] 21-ESR-01.

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25% and 75% values.[2] The Report should explain whether the analysis, assumptions and preliminary load shift goal apply to all customer classes and specify the types of rates that are addressed, such as time of use (TOU), critical peak pricing (CPP) or dynamic pricing.[3] The Report should also explain how the preliminary load shift goal is calculated based on the assumptions. For example, the presentation showed a goal setting potential value of 3,000-4,000 MW for TOU rates, dynamic pricing and programs optimizing load. However, it was unclear how the assumptions about the program enrollment and performance were reached, or why those assumptions correctly translated into these values.

The goal-setting framework and preliminary load shift goals presented in the Workshop appear to rely on ambitious levels of demand flexibility and demand response enrollment, and load shifting expectations. Currently, California utilities only offer dynamic pricing on an hourly level through pilot programs. Until more robust data is available, it is unreasonable to use early adopter demand response enrollment numbers of 25% for customers without demand response enabling technologies and 75% for those with enabling technologies, in dynamic pricing assumptions.[4] Cal Advocates recommends utilizing demand response enrollment figures based on available information from demand response reports and dynamic pricing pilots[5] with California data. Demand response enrollment figures in California are significantly lower than those referenced in the Arcturus 2.0 study[6] during the Workshop. For example, as of June 2022, the average participation rate of CPP across all total eligible accounts statewide (PG&E[7], SCE[8], and SDG&E[9]) is about 18%, and the average for Capacity Bid Pricing (CBP) rates is only 2% statewide. Furthermore, commercial customers were defaulted on to CPP rates but a large proportion have opted out. According to the 2022 Statewide Load Impact Evaluation of Non-Residential CPP Rates, participation percentages for CPP rates were shown to be

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[2] SB 846 Load Shift Goal Lead Commissioner Workshop, April 19, 2023. Slide 33.

[3] Dynamic pricing is used here to refer to rates that can vary on an hourly basis.

[4] SB 846 Load Shift Goal Lead Commissioner Workshop, April 19, 2023, slide 33.

[5] Some of the most prevalent real time pricing pilots in California include the Pacific Gas and Electric Company (PG&E) Day-Ahead hourly RTP import and export rate for Battery Electric Vehicles (A.20-10-011 and A.19-11-019), the PG&E and Valley Clean Energy Agricultural Pumping Dynamic Rate Pilot (R.20-11-003), and Stage 2 of the South California Edison RATES Pilot (R.20-11-003)

[6] Faruqui, A., Sergici, S., & Warner, C. (2017). Arcturus 2.0: A Meta-Analysis of Time-Varying Rates for Electricity. The Electricity Journal. Available at https://doi.org/10.1016/j.tej.2017.11.003. Accessed April 26, 2023

[7] PG&E data available at: https://files.cpuc.ca.gov/gopher-data/energy_division/DR/2022/PGE_Jun_2022.pdf, accessed April 25, 2023. PG&E's critical peak pricing program is referred to as Peak Day Pricing (PDP).

[8] SCE data available at: https://files.cpuc.ca.gov/gopher-data/energy_division/DR/2022/SCE_Jul_2022.pdf, accessed April 25, 2023.

[9] SDG&E data available at: https://files.cpuc.ca.gov/gopher-data/energy_division/DR/2022/SDGE_Jul_2022.pdf, accessed April 25, 2023.

significantly lower than the enrollment rates in the Arcturus study.[10] Additionally, third party demand response providers have consistently and significantly underperformed on the days of highest need. The California Independent System Operator (CAISO) Department of Market Monitoring (DMM) found that third party DR self-reported curtailing only about 45% of their scheduled load reductions on the highest need days over the past three years.[11] The CEC should modify the proposed demand flexibility and demand response adoption assumptions to ensure they are realistic and based on data from available information from demand response reports and real time pricing pilots.

B. Standardizing Review of Load Modifying Rates and Programs

Cal Advocates recommends that the CEC work with utilities, third party providers and the California Public Utilities Commission (CPUC) to use standardized load-shift evaluations to better inform the development of realistic load-shift goals. The following recommendations are intended to help support robust evaluations.

- Ex post evaluations should use preapproved methods to conduct ex post modeling. These might vary by program but should follow guidelines in the spirit of the CPUC's Load Impact Protocols.
- Ex ante estimates should be informed by prior ex post results.
- Evaluations should have standardized reporting requirements.
- Evaluation methods should be publicly available.
- Utilities and third-party providers should be held to the same evaluation standards and procedures.
- Customer forecasts should be grounded in historic numbers and a recognition that initial grow rates will likely slow in later years.

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[10] 2022 Statewide Load Impact Evaluation of Non-Residential Critical Peak Pricing (CPP) Rates. April 3, 2023. PG&E: Enrollment increased from 2021 to 2022 but has been forecasted to decrease after 2023, at p. 2 and 7. Additionally, 1300 small customers unenrolled from the CPP rates during 2022, at p. 35. SCE: Enrollment is forecasted to decrease 3% per year through 2027 where it is then projected to remain constant through 2027, at p. 7. SDG&E: Enrollment is forecasted to decrease sharply though 2025 and then at a rate of 5% per year, at p. 8.

[11] California ISO Demand response issues and performance 2022, February 14, 2023 Department of Market Monitoring, p. 19, "Supply plan demand response resources tend to perform poorly on days when the system experiences the tightest system conditions. Supply plan demand response only reported to curtail around 45 percent of their scheduled load reductions on August 14-15, 2020, July 9, 2021, and September 6-7, 2022, the most extreme days in the California ISO over the last three years."

- Evaluations should take customer behavior into consideration. That is, new technology cannot completely eliminate the human element of DR since load reduction or shift relies on there being load to reduce or shift.[12]

C. CEC Funding to Support Dynamic Pricing Pilots

The CEC presentation noted that incentives for load flexibility technology and participation in dynamic pricing pilots and tariffs would ideally be funded externally, and not by ratepayers. Cal Advocates supports such a standalone load management participation incentive program for customers that is funded through the CEC and not through ratepayers. In addition to avoiding ratepayer funding, this mechanism would also avoid increasing rates to support participation. The latter feature is especially important since high electricity rates *disincentivize* customer electrification. Such an incentive program should also include incentives to offset the cost of load flexibility technology and encourage participation in dynamic pricing tariffs and pilots. In order to meet the state's policy goals for decarbonization, it is important for electricity rates to be low enough for customers to be able to afford electrification.

D. Clarify How the Load Shift Goal Will Be Applied

Finally, the Report should clarify that both its main objective and the preliminary load shift goal is to facilitate flexibility in the greater planning regime. It is important that the Report explicitly state that the preliminary load shift goal is not meant to be used as inputs or constraints for Integrated Resource Planning (IRP) or the Transmission Planning Process (TPP). California is still in the pilot stages of dynamic pricing and current information and assumptions are not robust enough to adopt a goal that impacts planning for reliability. The CEC's AB525 report used similar language where it states that, "[t]he MW planning goals are not intended as a core input to IRP or TPP analysis, nor should they be seen as a "floor" or "ceiling" for offshore wind procurement in California."[13] The upcoming Report should clearly identify similar use constraints so there is no confusion regarding the intention of the Report.

III. CONCLUSION

Cal Advocates looks forward to continued cooperation with the CEC in an effort to help the state achieve its decarbonization goals in a timely and equitable manner. It is important that the goals for load shifting align with the realities customers face in our transition toward electrification. To aid in this alignment, the assumptions used to set our target goals must be clearly delineated, data-driven, and well scrutinized. Additionally, the incentives used to facilitate the transition must be provided in such a way as to not place a further burden on the

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[12] There have been instances where third parties don't want to use customer load data at all when evaluating their DR resources.

[13] "Offshore Wind Energy Development off the California Coast," CEC, August 2022, at 5.

ratepayers of California. Finally, these goals should be limited in use, and not applied to the IRP or TPP proceedings.

If there are any questions regarding these comments, please reach out to Cindy Li at XL2@cpuc.ca.gov .

Sincerely,

/s/ Michael Campbell

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Public Advocates Office