

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to
Advance Demand Flexibility
Through Electric Rates.

Rulemaking 22-07-005
(Filed July 14, 2022)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON THE
ORDER INSTITUTING RULEMAKING TO ADVANCE DEMAND FLEXIBILITY
THROUGH ELECTRIC RATES**

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August 15, 2022

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”) hereby submits these comments on the *Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates* (“OIR”), adopted by the Joint Commissioners on July 14, 2022.

I. INTRODUCTION.

CESA has long been a proponent and advocate for the expanded and advanced utilization of distributed energy resources (“DERs”), particularly from stationary and mobile energy storage resources, to support customer needs and provide grid services. CESA believes that customer-sited DERs represent a tremendous opportunity for the state to advance the state’s decarbonization goals and meet its key reliability needs if given the appropriate price signals, enabled to participate via an increasingly plug-and-play infrastructure, and allowed and compensated for the full utilization of its capabilities, such as for exports in the case of behind-the-meter (“BTM”) energy storage and bidirectional electric vehicle (“EV”) and charger resources.

This OIR seeks to build on a proposal that was originally proposed in May 2021 to develop rates based on a Unified, Dynamic, Economic Signal (“UNIDE”) framework. Since then, Energy Division (“ED”) staff has updated this framework in the recently released white paper, “Advanced

Strategies for Demand Flexibility Management and Customer DER Compensation” (referred to as “White Paper”), which outlines a California Flexible Unified Signal for Energy (“CalFUSE”) framework. CESA generally supports this rulemaking to further explore the CalFUSE Staff Proposal, along with broader consideration of various issues around real-time and dynamic pricing options. Considering dynamic pricing in a single rulemaking can better address the universal issues around establishing real-time and dynamic pricing options, including cost recovery concerns and infrastructure needs, such as infrastructure utility billing systems and automated price signals – common issues that have been commonly cited in past considerations of these options in the investor-owned utilities’ (“IOU”) General Rate Case (“GRC”) filings.

However, while supportive of such a rulemaking, CESA is concerned about the framing of the CalFUSE White Paper as a singular vision for DER utilization and management. Specifically, ED staff framed the current status quo of DER market integration as inefficient and complex. CESA, on the other hand, views this framing as dismissing the need to address current market integration issues as an existing pathway, or to consider alternative models for demand flexibility that do not focus on electric rates. At this time, CESA believes that the Commission should not foreclose or favor one pathway over another in this proceeding, especially as the CalFUSE framework will take time to develop and implement and may or may not provide the stable and long-term revenue streams required to finance and deploy many types of DERs.

Regardless, enabling dynamic retail rates offers an important and additional way for customers to respond to more dynamic and granular price signals. Given this potential, CESA thus looks forward to active participation in this proceeding and offers our comments herein on the proposed scope and schedule included in the OIR.

II. BACKGROUND & INTEREST IN PROCEEDING.

CESA is a 501c(6) membership-based advocacy group committed to advancing the role of energy storage in the electric power sector through policy development, education, outreach, and research. With over 120 companies represented in the energy storage ecosystem, CESA has a direct and deep interest in the proceeding in shaping the policies, procedures, and rules that prepare and modernize the distribution electric grid for DERs such as energy storage. CESA also has been an active participant in predecessor and related rulemakings, such as the proceedings for Distribution Resources Plans (“DRP”) (R.14-08-013), Integrated Distributed Energy Resources (“IDER”) (R.14-10-003), Self-Generation Incentive Program (“SGIP”) (R.20-05-012, R.12-11-005), Resource Adequacy (R.19-11-009, R.21-10-002), Microgrids and Resiliency (R.19-09-009), Reliable Electric Service in Extreme Weather (R.20-11-003), and a High DER Future (R.21-06-017), among others.

III. PRELIMINARY SCOPING MEMO.

CESA is generally supportive of the OIR and the Preliminary Scoping Memo, particularly the broader focus of this OIR to “enable participation in demand flexibility by both bundled and unbundled customers,” to achieve California’s electric reliability and climate goals. We also believe that the thirteen preliminary questions for this proceeding are appropriate issues to consider. However, with both this demand flexibility proceeding and the High DER proceeding (R.21-06-017) considering significant policy, market, and rate reform, CESA believes it is prudent for the Commission to ensure that progress is made on enabling demand flexibility and DER deployment as quickly as possible. To this end, CESA offers comments on the OIR below.

A. This proceeding should be structured to ensure progress not only on design principles but also on real proposals and implementation considerations.

The OIR states that “First, this rulemaking will adopt updated rate design principles and guidance principles” before looking at designing rates and tariffs. CESA believes that it is appropriate to revise the existing Commission rate design principles established in Decision (“D.”) 14-06-029 based on the “Bonbright principles” – in particular, the principle that “[r]ates should encourage reduction of both coincident and non-coincident peak demand”¹ that guides current demand charge design. The White Paper explains that this principle may be inappropriate in today’s modern grid with an abundance of renewable generation at certain times of the day and increasingly electrified end uses.²

At the same time, redesigning ratemaking principles may take significant time, especially when considering rate reforms as broad as the CalFUSE framework, so the Commission should not lose the opportunity to advance in areas of proposal development and implementation considerations before the final adoption of ratemaking and guidance principles. Considering that the OIR outlines that the “scoping ruling will also establish two or more working groups to develop proposals for the proceeding,”³ CESA urges these working groups to begin developing proposals as soon as possible for stakeholder consideration, in parallel with principles development. In the California Energy Commission (“CEC”) Supply-Side Demand Response (“SSDR”) Qualifying Capacity (“QC”) working group, for example, a subgroup focused on QC principles was held in

¹ D.14-06-029 at 12.

² See White Paper at 36: “Maintaining demand charges as a primary mechanism to recover capacity costs from non-residential customers is counter-productive to California’s long-term conservation and climate goals and is no longer aligned with grid economics.”

³ OIR at 7.

parallel with a group focused on developing QC proposals, with final proposals being evaluated against the final adopted principles when considering which methodology the CEC would recommend to the Commission. CESA believes that a similar model can be a productive way to make progress in this proceeding as well.

Additionally, there are many non-ratemaking implementation details that can be advanced regardless of a specific rate that is developed. Element 1 of the CalFUSE framework is to “Develop Standardized, Universal Access to the Current Electricity Price” regardless of what that electricity price is. The White Paper highlights the CEC’s Market Informed Demand Automation Server (“MIDAS”) as a potential platform that could be used statewide to allow customers to access their currently electricity prices and price forecasts over defined time horizons. Stakeholders can begin discussions on whether the MIDAS platform is appropriate to use for dissemination of electricity prices and the three Key Implementation Questions outlined by the White Paper on this item.⁴

The adoption of dynamic rates will also impact system planning processes across California agencies and stakeholders, including the CEC, California Independent System Operator (“CAISO”), distribution utilities, and load-serving entities (“LSEs”). All of these actors use rates to predict customer load to make appropriate investments in generation, transmission, and distribution infrastructure. Ensuring that customer response is accurately modeled and captured in forecasts and plans can be discussed amongst these diverse entities and other stakeholders before the adoption of any particular rate. CESA elaborates further on the importance of coordination with the CEC load forecast below.

⁴ *Ibid* at 44: “1. What processes, systems, or entities are necessary to facilitate the development and maintenance of the statewide price portal as described above? [...] 2. What should be the timeline to implement the statewide price portal? [...] 3. Should the price portal be available by default to all customers of all LSEs in the state?”

B. This proceeding should consider coordination issues and solutions with the CEC to ensure benefits of advanced demand flexibility can be realized.

In the White Paper, ED staff shared how a CalFUSE or dynamic rate can help minimize total electric system costs by better providing prices aligned with cost causation. CESA agrees that DERs have positively contributed to our electric grid and that additional potential to reduce electric system costs can be unlocked with the right programs and price signals. As an example, the White Paper highlights a study conducted by Pacific Northwest National Laboratory (“PNNL”) modeling a complex Distribution System Operator (“DSO”) optimizing DER dispatch in the Electric Reliability Council of Texas (“ERCOT”) area, which creates a 14% to 16% bill savings for participating residential customers with DERs and 10% to 14% bill savings for non-participating residential customers.⁵ Critical to these bill savings for non-participating customers was the inclusion of “savings from deferred transmission system and substation upgrades,” as well as generation capacity.⁶

However, one of the keys to unlocking the value of avoiding or deferring investments is ensuring that the load response from customers on a particular rate is correctly incorporated into the CEC’s statewide load forecast. The CEC’s Integrated Energy Policy Report (“IEPR”) load forecast, for example, is used to determine the System and Local Resource Adequacy (“RA”) capacity requirements for each LSE, which determines the amount of generation capacity that is procured. In order to actually reduce future generation capacity procurement, the load impacts of dynamic rates presumably need to be accurately incorporated into the IEPR load forecast on an *ex ante* basis;

⁵ White Paper at 86.

⁶ White Paper at 84.

otherwise, these generation capacity costs may not be avoided, and duplicative or excessive supply-side procurement may occur as a result.

Additionally, the RA program is moving to a slice-of-day (“SOD”) framework, which has the potential to further unlock value from advanced load flexibility by creating capacity requirements that vary across the day, along with the LSE load profile. By shifting load away from low renewable energy hours, demand flexibility has the potential to reduce the procurement of fossil-fuel generation capacity for those hours. Yet again, this would have to be reflected in IEPR forecasts for forward procurement to change. Whether, how much, how certain, and how far into the future load impacts can be forecasted also play into resource procurement decisions.

Similarly, the distribution utilities use the IEPR to create their Grid Needs Assessments (“GNAs”), which are used to determine where distribution upgrades are needed. Absent deep consideration of how dynamic rates are incorporated into the IEPR load forecast, similar questions arise on whether dynamic rates can provide sufficient confidence on a forward basis to support the use of demand flexibility to avoid or defer distribution capital investments.

Therefore, close coordination will be needed with the CEC and the IEPR process in order to ensure that the full benefits of advanced demand flexibility and CalFUSE are realized. Given the complexities behind these interactions, CESA urges the Commission to establish a working group or work stream with the CEC during this proceeding to allow for issues surrounding forecasting to be addressed. Without this close coordination, we caution that the full ratepayer benefits of the work in this proceeding may not be realized.

C. This proceeding should take advantage of existing pilots and rates to avoid duplicative pilots.

This proceeding is not the first time dynamic or real-time pricing (“RTP”) rates are being considered by the Commission, In fact, CESA would like to highlight the following rates and pilots that have been adopted by the Commission or are currently being discussed:

- San Diego Gas and Electric Company’s (“SDG&E”) Power Your Drive Pilot EV rate
- Southern California Edison Company’s (“SCE”) TeMix RATES Pilot
- Valley Clean Energy’s (“VCE”) dynamic agricultural pumping pilot
- Pacific Gas and Electric’s (“PG&E”) RTP pilot
- PG&E’s Day-ahead Hourly Real-time Pricing (“DAHRTP”) EV Rate Application (A.20-10-011)
- SDG&E’s Commercial EV Dynamic Rate Application (A.21-12-008)
- SCE’s future RTP rate that is currently being discussed in SCE’s GRC proceeding (A.20-10-012)

Many of these pilots are testing integration of wholesale market prices and other aspects of the CalFUSE framework into rates. These pilots will provide valuable insights into customer adoption of dynamic and RTP rates and will likely reveal barriers to adoption and implementation of dynamic rates. As such, CESA believes that the Commission should incorporate the results and lessons learned of these pilots and others into the record of this proceeding, instead of authorizing duplicative and unnecessary pilots. Time in this proceeding would be best utilized in discussing the rate design principles, merits of the CalFUSE framework, implementation considerations, and other policy matters beyond the consideration of additional pilots.

D. Any adopted rate design principles and demand flexibility guidance should carefully consider interactions with other DER pathways and not preclude these alternatives.

CESA appreciates the Commission’s inclusion, with certain modifications, of the question, “How should the Commission consolidate, modify, or eliminate existing tariffs for consistency with adopted rate design principles and demand flexibility guidance?”⁷ Specifically, CESA recommends that this scoping question focus on *consideration* of these interactions with not only other existing tariffs but also other existing or future DER load-modifying or market-integrated programs, contracts, and tariffs. The language to “consolidate” or “eliminate” tariffs to align with the demand flexibility guidance suggests a singular future where demand flexibility is enabled through electric rates. Based on the workshop held on the CalFUSE White Paper, there did not seem to be a clear consensus that these dynamic rates or CalFUSE approach was necessarily the most efficient and effective means to enable demand flexibility. Similarly, a focus on existing *tariffs* would overlook how certain key policy issues (*e.g.*, forecasting, operations, incrementality) must be addressed for DERs that enable their flexibility through *other mechanisms*, such as through load-modifying or market-integrated programs, bilateral contracts, other aggregator models, or tariffs. In adopting principles and guidance in this OIR as well, it will be important to consider interactions with not just existing but also future potential programs, contracts, and tariffs.

Notwithstanding these modifications to the scoping question above, CESA generally supports the intent of the issue at hand. For example, misalignment of retail rates (*e.g.*, non-coincident demand charges) and CAISO wholesale markets have created

⁷ OIR at 8.

conflicting signals for DERs to be utilized and/or dispatched in times of grid need. It is therefore appropriate and important to address these interactions with both existing and future programs, contracts, and tariffs.

E. An additional track should be added to the proceeding to consider how to advance demand flexibility through alternative means beyond rates.

As highlighted above, there are multiple ways to enable advanced demand flexibility in California and shape load to best achieve California’s climate and electric reliability goals. For example, Bloom Energy has submitted a Petition for Rulemaking (“PFR”) that seeks to establish a tariff that will provide a capacity credit and compensate for emergency energy exports, outside of retail rates.⁸ Wholesale market participation for DERs is also still being encouraged through Federal Energy Regulatory Commission (“FERC”) Order 2222. Outside of specific tariffs or programs, there is also a growing recognition that demand flexibility should be thought about in the aggregate, and that enabling a transactive system to buy/sell supply, as outlined in CalFUSE Element 6, may be best done with aggregations of BTM DERs instead of individual customers bidding in their own load. Therefore, the pass through of costs and payments may be more complex than what is thought about in a purely retail rate.

To that end, CESA recommends that there be a dedicated track in this proceeding to consider the alternative mechanisms outside of retail rates to determine where we can pursue advanced demand flexibility. Overall, the goal of this proceeding is to create a more reliable, affordable, and clean grid by enabling participation in demand flexibility for both

⁸ See *Petition of Bloom Energy Corporation for Rulemaking to Adopt a Distributed Energy Resource Reliability & Resilience Tariff to Address Urgent and Near-Term Grid Reliability Needs* filed on June 23, 2022.

bundled and unbundled customers, and the Commission should be open to opportunities to pursue this goal outside of retail rates.

IV. CATEGORIZATION, HEARINGS, AND SCHEDULE.

CESA supports the categorization of this proceeding and agrees with the preliminary determination to find a need for evidentiary hearings.

V. NOTICES.

Services of all notices and communications in this proceeding should be directed to the following CESA representative:

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VI. CONCLUSION.

CESA appreciates the opportunity to submit these comments on the OIR and looks forward to working with the Commission and other stakeholders in this proceeding.

Respectfully submitted,



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Date: August 15, 2022