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

Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates	Rulemaking 22-07-005

OPENING COMMENTS OF VALLEY CLEAN ENERGY ALLIANCE AND POLARIS ENERGY SERVICES ON ORDER INSTITUTING RULEMAKING TO ADVANCE DEMAND FLEXIBILITY THROUGH ELECTRIC RATES

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On behalf of Valley Clean Energy Alliance and Polaris Energy Services

August 15, 2022

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Pursuant to Rules 1.4(a)(2)(ii) and 6.2 of the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission") and the Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates dated July 22, 2022 ("OIR"), Valley Clean Energy Alliance ("VCE") and Polaris Energy Services ("Polaris") hereby submit these comments on the OIR. VCE and Polaris provide background on their interests in this proceeding as well as comments in response to the preliminary scope of issues set forth in Section 3 of the OIR.[1]

I. Introduction

A. Background on Valley Clean Energy Alliance & Interest in this Proceeding

VCE was formed as a Joint Powers Authority ("JPA") of the City of Davis and County of Yolo in 2016. The City of Woodland joined the JPA in June 2017, and the City of Winters joined in 2021. The members formed VCE for the purposes of implementing a community choice aggregation/community choice energy ("CCA") program to allow VCE to provide electric generation service within their respective jurisdictions. VCE initiated customer service on June 1, 2018. As of May 23, 2022, VCE serves approximately 61,500 customer accounts, which are expected to have a retail load of 730,028 megawatt-hours ("MWh") in 2022.

[1] VCE and Polaris are each seeking party status as individual parties pursuant to Rule 1.4(a)(2)(ii), but are filing these comments on the OIR jointly.

In R.20-11-003, the Commission's Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Reliable Electric Service in California in the Event of an Extreme Weather Event in 2021, VCE proposed a pilot dynamic rate to incentivize agricultural customers in its service area to shift their irrigation pumping load to more optimal times of the day. This Agricultural Flexible Irrigation Technology pilot program ("AgFIT Pilot") was approved in D.21-12-015, and launched this summer. VCE's AgFIT Pilot is designed to send understandable and actionable price signals to agricultural customers to shift flexible irrigation pumping load away from daily load peaks – particularly in summer when reliability is threatened. VCE is a strong advocate for the exploration of dynamic price signals as an important tool to "shave the peaks and fill the valleys" of the demand curve, and strongly supports the Commission's overall objectives of this OIR. Through its experience implementing one of the first dynamic rates in California, VCE (and its partners in the AgFIT Pilot), will be positioned to meaningfully contribute to the conversation around the advancement of demand flexibility through innovating ratemaking in this proceeding.

B. Background on Polaris & Interest in this Proceeding

Polaris is the leader in agricultural demand response and load management. Polaris manages a network of over 500 irrigation and water conveyance pumps connected in the field to Polaris Pump Automation Controllers gateways and third-party irrigation management systems that represent 75 megawatts ("MW") of peak demand. Polaris aggregates irrigation pumping load in the Baseload Interruptible Program ("BIP") and Capacity Bidding Program ("CBP").

Polaris won the California Energy Commission's ("CEC") California Energy Visionary Awards, Best in Dynamic Buildings and Grid for a project that included a transactive energy (dynamic pricing) pilot that achieved shift of two thirds of afternoon ramp hour load from participating irrigation pumps. Polaris partnered with VCE and TeMix Inc. to develop and implement the AgFIT Pilot that was launched this year.

II. Comments on Preliminary Scope of Demand Flexibility OIR

VCE and Polaris do not object to the preliminary scoping memo, but herein provide their perspective on the preliminary issues within scope and considerations for the final scoping memo. Italicized, bold language is quoted from Section 3.1 of the OIR.

"***Should the Commission consider and/or authorize additional pilots, tariffs, programs, and/or studies to make demand flexibility options available to each customer class? If so, what factors should the Commission consider in assessing whether to authorize?***"

VCE and Polaris offer for the Commission's consideration that this may be an appropriate forum to examine the results of dynamic rate pilots and other novel dynamic rates authorized in other proceedings and consider whether such pilots should be expanded (*e.g.*, in terms of MW caps, service territories, customer class or otherwise) or beyond pilots to tariffs. Such analysis could consider how the results of such pilots should influence the guiding principles or rate design established in this proceeding.

"How should the Commission reform demand charges for consistency with the adopted rate principles and demand flexibility guidance?"

VCE and Polaris agree that demand charges should be reexamined and reformed or potentially eliminated in this proceeding. Such charges can create a disincentive for customers to switch to dynamic rates: once a load cap is reached and a demand charge triggered in a billing cycle, a customer has little to no economic incentive to further modify its load shape. This is an appropriate forum to reexamine the consistency of such provisions with California's needs and policy goals.

"How should the Commission ensure universal access to dynamic electricity prices by customers, devices, distributed energy resources, and third-party service providers? How should systems needed for universal access be funded, built, operated, and maintained?"

VCE and Polaris strongly agree that there should be universal real-time access to dynamic prices for all customers and LSEs. Such transparency is critical to development and widespread uptake of dynamic pricing and other rates intended to enable load-shifting rates. VCE and Polaris agree that how such systems are funded is a question that should be within the scope of this proceeding. VCE and Polaris note that the CEC is pursuing such pricing access through the Market Informed Demand Automation Server ("MIDAS") clearinghouse in its Load Management Rulemaking (CEC Docket No. 21-OIR-03).

"How should the Commission inform customers about dynamic rates, ease customers' transitions to these rates, help them manage and plan their electricity usage, and protect them against bill volatility?"

Marketing, Education and Outreach ("ME&O") is a critical element of dynamic pricing design and implementation. VCE and Polaris strongly agree that customer education about the existence of dynamic rates, and coordinated efforts to support customer transitions to such rates is essential to the success of the Commission's goal of demand flexibility.

Based on VCE's and Polaris's initial experience rolling out the AgFIT Pilot and earlier CEC EPIC-funded research by Polaris, VCE and Polaris observe that rates must be matched with adequate customer support and <u>load automation</u> to gain meaningful participation in new and unfamiliar dynamic rate structures. Well-designed and targeted rates alone are not likely to achieve the ambitious and necessary reliability and climate goals that the OIR is designed to address. Without a strategy to meet the customer (or their devices) "where they are at," the participation in the AgFIT Pilot would have been limited or non-existent. VCE and Polaris urge the Commission to give careful consideration to such design issues and to incorporate the support, resources, and flexibility LSEs will need to educate and support customer adoption of rates adopted in this proceeding. Accordingly, VCE and Polaris support the OIR's inclusion of ME&O, customer support and automation support issues within the scope of this proceeding.

"How should the system benefits and savings resulting from demand flexibility be tracked, quantified, and incorporated into rates to pass on to customers?"

VCE and Polaris agree that this issue should be in scope. In addition, the scope of this proceeding should include an examination of how system benefits are incorporated into the reliability regulatory framework (i.e. Resource Adequacy and Integrated Resource Plan requirements). System benefits must be reflected in such frameworks in order to then fully pass on benefits to customers.

"What tools and policies are necessary to enable bundled and unbundled customers to participate more fully in demand flexibility rates?"

VCE and Polaris fully agree that this issue should be within scope, and initially note the importance of data access for non-IOU LSEs and their customers to enable such unbundled customers to fully participate in dynamic and other demand flexibility rates.

In addition, the scope of this proceeding should include the need for investment by state agencies or the Commission in the development of dynamic rates (via pilots, research, developing best practices for rate design, ME&O and analysis) and support to LSEs implementing such rates. Since the benefits of such rates accrue to all ratepayers/Californians, such financial support should be broad-based as well.

"How should the Commission support the implementation of the amendments to the California Energy Commission's Load Management Standards, if adopted? What actions should the Commission consider, if any, in addition to reviewing dynamic rates proposed by utilities and ensuring universal access to dynamic electricity prices?"

VCE and Polaris agree that this question should be in scope and this OIR should work closely with CEC Commissioner McAllister and the CEC staff working on CEC Docket No. 21-OIR-03.

As an initial matter, VCE and Polaris reiterate that, in addition to rate design and new tariffs, it is crucial for the Commission to consider and plan for ME&O, customer support and demand automation technology to fully enable customer transitions to dynamic and other flexible rates. This observation is grounded in VCE's and Polaris' initial experience implementing its AgFIT Pilot. VCE and Polaris encourage the Commission to include such design and implementation issues within this proceeding's scope.

Relatedly, this proceeding should take into consideration the time, resources and expertise necessary to implement novel dynamic rates at scale. In implementing its AgFIT Pilot so far, VCE and Polaris have had the benefit of the most experienced dynamic rate design team in the State along with the support and focus of the Energy Division's subject matter experts. Yet still, it is a challenge to launch even a small pilot where novel dynamic rates are being introduced to customers. Such issues should be considered in tandem with the mechanics of rate design as part of this proceeding's scope.

Also, in addition to reviewing dynamic rates, the Commission should analyze customer segments and sectors where there is early opportunity to implement such novel rates. For example, a Lawrence Berkley National Laboratory study published in 2020 identifies where the most load shift potential exists in California.[2] This analysis was a key driver for VCE's decision to prioritize and focus on agricultural irrigation pumping in its AgFIT Pilot proposal in R.20-11-003. Based on VCE's and Polaris' initial experience so far with the effort and resources needed to develop a single rate for a single customer class, a more targeted approach that builds practical knowledge can help mitigate risks associated with scaling novel dynamic rate design. As part of this proceeding, the Commission should consider setting up multiple large-scale pilots focused on priority sectors designed to achieve meaningful gains in reliability and GHG reductions while expanding the learning and developing best practices for scaling implementation of dynamic rates.

III. Communications and Service

VCE consents to "email only" service and requests that the following individuals be added to the service list for R.22-07-005 on behalf of VCE:

Party Representative

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Polaris consents to "email only" service and requests that the following individuals be added to the service list for R.22-07-005 on behalf of Polaris:

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[2] Brian F Gerke, Giulia Gallo, Sarah Josephine Smith, Jingjing Liu, Shuba V Raghavan, Peter Schwartz, Mary Ann Piette, Rongxin Yin, Sofia Stensson, Lawrence Berkley National Laboratory, *The California Demand Response Potential Study, Phase 3: Final Report on the Shift Resource through 2030* (July 2020); available at: https://emp.lbl.gov/publications/california-demand-response-potential.

IV. Conclusion

VCE and Polaris commend the Commission for opening this proceeding and proactively considering demand flexibility initiatives that have the potential to reduce greenhouse gas emissions by better utilizing renewable generation powering California. VCE and Polaris hope their practical experience in designing and implementing a dynamic rate pilot will be helpful to the Commission in this proceeding. VCE and Polaris support the Commission's efforts to take on this critically important topic and thank the Commissioners and Energy Division for your leadership.

Respectfully submitted,

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