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12/02/22
04:59 PM
R2207005

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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

CALIFORNIA COMMUNITY CHOICE ASSOCIATION'S COMMENTS ON ASSIGNED COMMISSIONER'S PHASE 1 SCOPING MEMO AND RULING

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December 2, 2022

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SUMMARY OF RECOMMENDATIONS

California Community Choice Association recommends that the California Public Utilities Commission:

- Expand the description of Demand Flexibility Principle #3 regarding "systems and processes" necessary for community choice aggregators (CCAs) to participate in dynamic pricing and demand flexibility to include (1) CCA access to data from the investor-owned utilities (IOUs) for the timely receipt of billing quality interval data to view CCA load, and (2) upgrades to IOU systems to incorporate billing and settlement of the dynamic rates for CCA customers;

- Ensure principles of equity are incorporated into Electric Rate Design Principle #1 and #7, along with access to electricity and affordability; and

- Address on a priority basis within Track B the expansion of Valley Clean Energy Alliance's agricultural dynamic rate pilot program on an opt-in basis for load-serving entities to immediately take advantage of the proven success and benefits of automated load shifting and dynamic pricing within the agricultural sector.

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CALIFORNIA COMMUNITY CHOICE ASSOCIATION'S COMMENTS ON ASSIGNED COMMISSIONER'S PHASE 1 SCOPING MEMO AND RULING

The California Community Choice Association[1] (CalCCA) submits these Comments in response to the *Assigned Commissioner's Phase 1 Scoping Memo and Ruling* (Ruling), issued November 2, 2022.

I. INTRODUCTION

The Ruling categorizes an ambitious scope, with the overall goal of "advancing reliability, affordability, and equity, enabling widespread electrification, and reducing long-term system costs for bundled and unbundled customers."[2] The Ruling sets the California Public Utilities Commission (Commission) on a course to: (1) establish an income-graduated fixed charge for residential rates in accordance with Assembly Bill (AB) 205 (Track A), and (2) adopt demand flexibility rates (Track B). CalCCA supports the Track B working group approach to gather stakeholder input on demand flexibility rate design, and the systems and processes

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1 California Community Choice Association represents the interests of 24 community choice electricity providers in California: Apple Valley Choice Energy, Central Coast Community Energy, Clean Energy Alliance, Clean Power Alliance, CleanPowerSF, Desert Community Energy, East Bay Community Energy, Energy For Palmdale's Independent Choice; Lancaster Choice Energy, Marin Clean Energy, Orange County Power Authority, Peninsula Clean Energy, Pico Rivera Innovative Municipal Energy, Pioneer Community Energy, Pomona Choice Energy, Rancho Mirage Energy Authority, Redwood Coast Energy Authority, San Diego Community Power, San Jacinto Power, San José Clean Energy, Santa Barbara Clean Energy, Silicon Valley Clean Energy, Sonoma Clean Power, and Valley Clean Energy.

2 *Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates*, R.22-07-005 (July 22, 2022) (OIR), at 6-7.

necessary to support dynamic electricity prices, billing, and settlement. CalCCA also supports the Staff Proposal (Attachment to the Ruling) for modifying the Commission's electric rate design principles (ERP) and establishing the demand flexibility design principles (DFP), with amendments as recommended herein.

The following responds to the Ruling's Questions for Party Comment, with a focus on three items. First, the Commission should expand the description of "systems and processes" in DFP #3 necessary for community choice aggregators (CCAs) to participate in demand flexibility programs and dynamic pricing. Systems and processes must be developed to integrate the bundled and unbundled portions of the bill for dynamic pricing. CCAs need greater access to investor-owned utility (IOU) data, including more timely access to billing quality interval data to view CCA load. The IOUs must also upgrade their systems to implement dynamic rates, which will then incorporate CCA customer bills into that system.

Second, the Commission should ensure principles of equity are expressly included in the ERPs and DFPs along with access to electricity and affordability.

Third, the Commission should set on a priority basis within Track B the expansion of Valley Clean Energy Alliance's (VCE's) voluntary agricultural dynamic rate pilot program (AgFIT Pilot), approved in Decision (D.) 21-12-015. CalCCA appreciates the Ruling's inclusion in Phase 1, Track B (item 6) the issue of whether to expand existing dynamic rate pilots as a near-term solution to benefit system reliability and agrees that this question should be addressed in Phase 1. In response to Question 4 of the Ruling, given the initial success of the AgFIT Pilot in shifting load during ramp and peak hours, the Commission should immediately take advantage of this "low hanging fruit" – i.e., the unique combination of large load shift opportunity under the control of relatively few agricultural customers with load automation technology that ties to dynamic pricing signals. The Commission should prioritize immediately expanding this contributor to grid reliability benefits to other load serving entity (LSE) service areas and more customers on an opt-in basis.

CalCCA's comments below offer responses to the "Questions for Party Comment" in the Ruling, and provide the following recommendations:

- Expand the description of DFP #3 regarding "systems and processes" necessary for CCAs to participate in demand flexibility and dynamic pricing to include (1) CCA access to data from IOUs for the timely receipt of billing quality interval data to view CCA load, and (2) upgrades to IOU systems to incorporate billing and settlement of the dynamic rates for CCA customers;

- Ensure principles of equity are incorporated into ERP #1 and #7 along with access to electricity and affordability; and

- Address on a priority basis within Track B the expansion of VCE's AgFIT Pilot on an opt-in basis for load-serving entities (LSEs) to immediately take advantage of the success and reliability benefits of automated load shifting tied to dynamic pricing within the agricultural sector.

II. CCA DATA ACCESS AND SYSTEM UPGRADES ARE NECESSARY FOR CCA INCORPORATION INTO DEMAND FLEXIBILITY PROGRAMS

Issues regarding system and process upgrades to implement dynamic pricing, including CCA data access, data sharing, and IOU system upgrades for CCA billing, must be considered in any discussion of the establishment of demand flexibility rate programs and voluntary CCA participation. Staff's proposed DFP #3 states:

> The systems and processes needed to calculate the dynamic price signal should be able to integrate bundled and unbundled rate components so that all Load Serving Entities can elect to participate.

CalCCA appreciates the Staff Proposal's acknowledgment that systems and processes needed to calculate and implement dynamic price signals are necessary to integrate bundled and unbundled rate components. In fact, California Energy Commission (CEC) staff and the Load Management Standard stakeholder working group are currently grappling with the complex issues of how to incorporate both bundled and unbundled rate components into the CEC's real time price database, the Market Informed Demand Automation Server program.[3]

In addition to the overall development of the systems and processes to incorporate the dynamic price signal, CCAs cannot implement dynamic pricing until the IOUs improve their data sharing processes and develop the data and billing systems to incorporate CCA rates. Currently, the data received by CCAs from the IOUs is not billing quality and is insufficient for the purposes of offering dynamic rates at scale. The data received by CCAs is limited and does not allow for the receipt of timely access to billing quality interval usage data to view CCA customer load. With respect to CCA customer bills, the IOUs receive from the CCAs the generation rate information to calculate customer generation charges. The IOUs then send out final total bills after having incorporated their transmission and distribution charges with the CCA generation charges. Therefore, CCA customers cannot accurately be billed for the CCA generation portion of a dynamic rate until the IOUs establish their own data and billing systems to implement the dynamic rate. Implementation by CCAs of any dynamic rates will therefore depend on IOU implementation of upgrades to their data and billing systems. CalCCA therefore requests that DFP #3 be updated to reflect the data sharing and billing needs of CCAs to allow the adoption of dynamic pricing.

III. EQUITY SHOULD BE INCORPORATED IN THE ERPS ALONG WITH ACCESS TO ELECTRICITY AND AFFORDABILITY

The Commission should adopt Staff's proposal modifying the ERPs, with the addition of defining and integrating equity into the principles, to better align ERPs with the goals of this

[3] CEC Docket 21-OIR-03, *Load Management Standards.*

proceeding[4] and the Commission's Environmental and Social Justice (ESJ) Action Plan.[5] Goal 1 of the ESJ Action Plan is to "consistently integrate equity and access considerations throughout CPUC regulatory activities."[6] The access consideration in Goal 1 of the ESJ Action Plan is specifically mentioned in ERP #1: "All residential customers (including low-income and medical baseline) should have access to enough electricity to ensure their essential needs (health, safety, and full participation in society) are met at an affordable cost."[7] The Commission should amend ERP #1 to explicitly incorporate equity goals (of which affordability is a subset) by adding "<u>and in an equitable manner</u>" to the end of the sentence.

Additionally, Staff's proposed ERP #7 currently states that "[r]ates should be technology–neutral and avoid cross-subsidies, unless the cross subsidies appropriately support explicit state policy goals." CalCCA recommends explicitly incorporating equity goals into this ERP by adding "<u>and/or promote equitable outcomes</u>" at the end of the sentence. Explicitly adding equity into ERPs #1 and #7 will ensure equity is integrated into access and affordability concerns throughout this proceeding.

IV. VALLEY CLEAN ENERGY ALLIANCE'S AGRICULTURAL SECTOR DYNAMIC RATE PILOT APPROVED IN D.21-12-015 SHOULD BE IMMEDIATELY EXPANDED TO REALIZE GRID RELIABILITY BENEFITS

The Commission should expand opt-in dynamic pricing for agricultural customers across the IOU territories. CalCCA appreciates the inclusion in Phase 1, Track B (item 6) of the question of whether existing dynamic rate pilots as a near-term solution will benefit system

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4 *See* OIR at 6 (listing "mak[ing] electric bills more affordable and equitable" as one of the objectives of the Demand Flexibility proceeding).

5 California Public Utilities Commission Environmental & Social Justice Plan (Apr. 7, 2022).

6 *Id.* at 4.

7 Although affordable access to electricity is mentioned in ERP 1, the Commission should ensure the definition of affordability used is tied to the Affordability Metrics implemented in the ongoing Affordability proceeding, R.18-07-006.

reliability.[8] Also important is the Staff Proposal's inclusion of integrating dynamic price signals with third-party demand management automation technologies (DFP #1), as well as the critical role of customer education and outreach concerning available demand flexibility rates (ERP #10). Expansion of the AgFIT Pilot should be considered on a priority basis to take advantage of immediate potential grid benefits.

Specifically, VCE's five megawatt (MW) dynamic rate pilot to incentivize agricultural customers to shift irrigation pumping and processing load has already shown success in cost-effectively shifting significant agricultural load in both the ramp and peak hours, in just one season. VCE's interest in the AgFIT Pilot stemmed from a study published in 2020 by the Lawrence Berkeley National Laboratory (LBNL) that identified where the most load shift potential exists in California.[9] Especially in PG&E and SCE's territories, agricultural pumping and processing represent a sizable portion of load shift potential.[10] The Commission approved the AgFIT Pilot in the Summer Reliability proceeding (R.20-11-003) and noted that, "[a]griculture pumping has the capability to supply demand flexibility at low cost."[11] The Commission further noted that "[e]xisting CEC/[Electric Program Investment Charge (EPIC)] funded projects (EPC-16-045) have demonstrated success in incentivizing agricultural pumping

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[8] Ruling at 6.

[9] *See* Brian F Gerke, Giulia Gallo, Sarah Josephine Smith, Jingjing Liu, Shuba V Raghavan, Peter Schwartz, Mary Ann Piette, Rongxin Yin, Sofia Stensson, Lawrence Berkeley 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 (hereinafter referred to as the LBNL Study).

[10] *Post Prehearing Conference Statement of Central Coast Community Energy and Valley Clean Energy Alliance*, R.22-07-005 (Sept. 27, 2022) (3CE/VCE Post PHC Statement), at 3 (citing LBNL Study, Figure 3-9).

[11] D.21-12-015, *Phase 2 Decision Directing Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company to take Actions to Prepare for Potential Extreme Weather in the Summers of 2022 and 2023,* Finding of Fact 81 at 145.

load shift in response to dynamic prices provided ahead of time."[12] The Phase 2 Opening Testimony of AgFIT Pilot partner Polaris Energy Services (Polaris) in R.20-11-003 showed that this CEC/EPIC-funded project demonstrated that agricultural customers "were able to shift 67% of ramp hour load (4 – 9 p.m.) in the first year of participation."[13] The Commission should consider immediately expanding this contributor to grid reliability benefits to other agricultural customers within other LSE service areas on an opt-in basis, as set forth below.

A. The Immediate Expansion of AgFIT is Warranted Based on the Initial Success of the Pilot in Shifting Significant Agricultural Load in Both the Ramp and Peak Hours

VCE's AgFIT Pilot should be immediately expanded, given its initial success in shifting agricultural irrigation pumping load in both the ramp and peak hours. The AgFIT Pilot launched in the summer of 2022. As detailed in 3CE/VCE's Post-PHC Statement, the first irrigation season utilizing the AgFIT Pilot demonstrates great potential.[14] Price signals were developed, sent, and responded to in both the ramp and peak hours. Figures 1 and 2 below demonstrate the August and September usage of load participating in the AgFIT Pilot in 2021 and 2022 based on ShareMyData, comparing the average hourly load for all hours (beginning in each hour), across the two years:

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[12] D.21-12-015 at 91 (citing R.20-11-003 Opening Phase 2 Prepared Testimony of Polaris Energy Services (Sept. 1, 2021) ("R.20-11-003 Polaris Phase 2 Opening Testimony"), at 9).

[13] R.20-11-003, Polaris Phase 2 Opening Testimony at 10; *see also* California Energy Commission Energy Research and Development Division Final Project Report, Technologies and Strategies for Agricultural Load Management to Meet Decarbonization Goals, CEC-500-2021-044 (Oct. 2021) at iv (summarizing the EPIC-funded research project to test the ability of agricultural pumping load to respond to energy market price signals to help meet California's energy policy goals, and demonstrating that "participants shifted two thirds of load from the 4-9 p.m. ramp hours to other times of the day to reduce energy costs and carbon intensity. The research demonstrated, on a limited scale, that 80 percent of peak demand for agricultural pumping load can be shifted, which would eliminate 1.8 percent of total carbon emissions from power generation. That reduction can be achieved at a lower cost than battery energy storage or load shift from many other sectors."), available at https://www.energy.ca.gov/sites/default/files/2021-10/CEC-500-2021-044.pdf.

[14] 3CE/VCE Post-PHC Statement, at 2.

Figure 1: August-September 2021 AgFIT Customer Electricity Usage

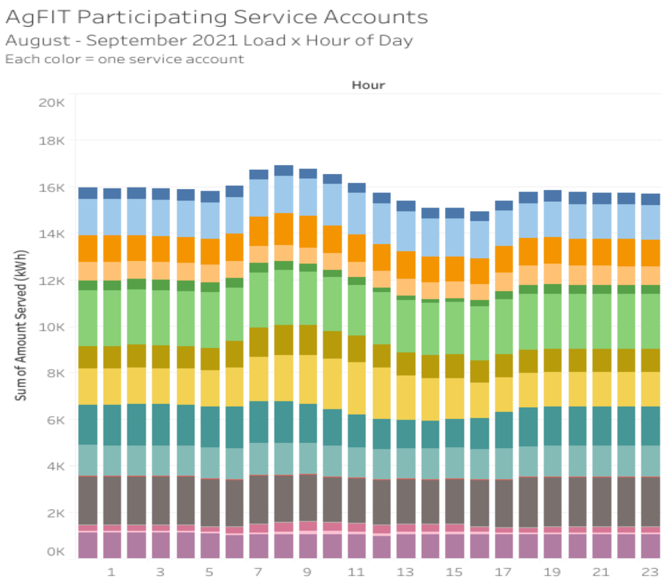
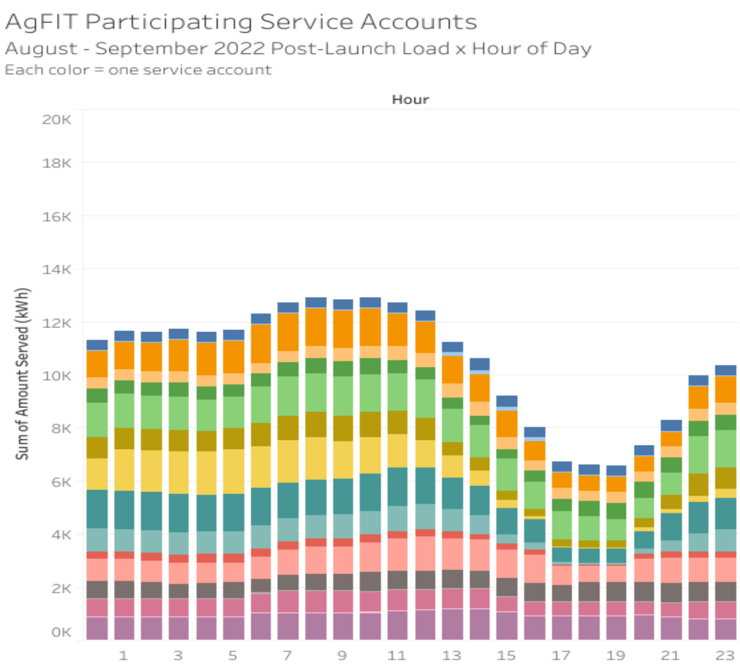


Figure 2: August-September 2022 AgFIT Customer Electricity Usage



Preliminary results as analyzed by Polaris showed 39 percent of participating customer load in August and September 2022 was shifted off peak (using the 5-8 P.M. window as "peak") relative to such customers' load in August and September 2021. This load shift occurred under the AgFIT Pilot even during the September 2022 "heat storm," demonstrating the great potential of the pilot to shift agricultural load during reliability crises.[15] The Commission should set on a priority basis the expansion of this pilot to additional agricultural customers and in other LSE service areas, given the initial success of the AgFIT Pilot and results of the CEC/EPIC funded project discussed above.

B. The AgFIT Expansion Should be Scaled Based on the Pilot

In response to Question 4 of the Ruling, the voluntary AgFIT Pilot should be expanded to other service areas on an opt-in basis by LSE. The initial duration of the expansion should be for five years, with a potential for extensions or modifications, based on data analysis. CalCCA recommends the expansion of the AgFIT Pilot up to 500 MW, which is approximately equal to the load shift potential identified in the LBNL study for agricultural pumping and processing,[16] converted from gigawatt-hours to MW of peak load. Customer eligibility should be broad and inclusive, with all types of agricultural customer load (i.e., not only irrigation pumping) being eligible to participate. As with VCE's AgFIT Pilot, evaluation of results of the expanded pilot (at the mid and end-points) should be performed by an independent, third-party, with opportunity for guidance and input from Energy Division and the participating LSEs.[17] The design of the dynamic rates for the expanded pilot can be based on Steps 2 - 6[18] of the 6-step "Distributed Energy Resource & Demand Flexibility roadmap" (UNIDE).[19] VCE's Advice Letter 11-E, dated

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15 Per information provided to CalCCA by VCE, nearly twice as many irrigation pumps participated in the AgFIT Pilot in September 2022, as compared to August 2022.

16 *See* LBNL Study at 49, Figure 3-9 (showing pumping load shift resource of approximately 0.875 gigawatt-hours (GWh) across the three large IOU territories in 2030 at the behind-the-meter battery price referent); *see also id*. at xvi ("Agricultural pumping loads … make up the vast majority of the Shift resource from pumping").

17 *See* D.21-12-015, Ordering Paragraph (O¶) 55 at 178-79.

18 *Id.*, O¶ 53 at 88, 90, 93.

19 Energy Division Staff described UNIDE at the May 25, 2021, workshop on Advance DER and Demand Flexibility Management, held in R.20-11-003.

January 5, 2022, and PG&E's Supplemental Advice Letter 6495-E-A, dated February 4, 2022, implementing the AgFIT Pilot can be used as the basis for design of the expanded pilot dynamic rates and shadow billing structure, with input from VCE, PG&E, and Energy Division staff.

C. AgFIT Demonstrates that Customer Marketing, Education and Outreach and Automation, as Recommended by the Staff Proposal, are Key to Successfully Shifting Customers to Dynamic Pricing

CalCCA supports the inclusion in the Staff Proposal of the need for automation for dynamic price signals (DFP #1), and customer education and outreach to ensure customer knowledge of available rate structures (ERP #10). Load automation (demand automation technology) is critical as an accompaniment to dynamic rates to ensure dynamic pricing signals can be easily integrated with demand management technologies. Marketing, education, and outreach (ME&O) is also a critical element of dynamic pricing design and implementation. VCE found in its first season implementing the AgFIT Pilot that customer education about the existence of and most efficient ways to transition to dynamic rates is essential to the success of demand flexibility.[20] As this proceeding progresses, pathways for LSEs participating in the AgFIT Pilot to account for the resulting load shift in resource adequacy and other procurement planning requirements should be considered. In addition, this proceeding should consider ratepayer and/or non-ratepayer funding sources to incentivize the deployment of load automation technology that ties to dynamic pricing signals, as well as ME&O and other administrative costs of an expanded pilot.

[20] *Opening Comments of Valley Clean Energy Alliance and Polaris Energy Services on Order Instituting Rulemaking to Advance Demand Flexibility through Electric Rates*, R.22-07-005 (Aug. 15, 2022), at 4-5.

V. CALCCA RESPONSES TO QUESTIONS FOR PARTY COMMENT

1. Should the Commission adopt the staff proposal for modifying the electric rate design principles applicable to all electric rates of the large investor-owned electric utilities (see Attachment)? Why or why not?

CalCCA supports the ERPs set forth in the Staff Proposal, with the amendments as described in section III., above. Specifically, ERP #1 and #7 should be amended to set equity as a goal in electric rate design along with access to electricity and affordability.

2. Should the Commission adopt the staff proposal for new demand flexibility design principles applicable to all demand flexibility rates of large investor-owned electric utilities (see Attachment)? Why or why not?

CalCCA supports the DFPs set forth in the Staff Proposal, with the amendments as described in section II., above. Specifically, the Commission should amend DFP #3 to expand the description of "systems and processes" necessary for CCAs to participate in dynamic pricing and demand flexibility programs to include (1) CCA access to data from IOUs for the timely receipt of billing quality interval data to view CCA load, and (2) upgrades to IOU systems to incorporate billing and settlement of the dynamic rates for CCA customers.

4. Should the Commission expand any of the existing dynamic rate pilots as a near-term solution to benefit system reliability?

a. If so, which pilots should the Commission expand and why?

b. How should any of the expanded pilots be modified (e.g., duration, size, eligibility criteria, reporting/evaluation requirements, rate design, cost recovery)?

The Commission should expand the existing VCE AgFIT Pilot on a priority basis in Track B, as set forth in section IV, above.

VI. CONCLUSION

For all the foregoing reasons, CalCCA respectfully requests consideration of its recommendations and looks forward to an ongoing dialogue with the Commission and stakeholders.

Respectfully submitted,

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December 2, 2022