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

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

**VALLEY CLEAN ENERGY ALLIANCE OPENING COMMENTS ON
TRACK B STAFF PROPOSAL TO EXPAND EXISTING PILOTS**

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On behalf of Valley Clean Energy Alliance

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Pursuant to Administrative Law Judge Wang's August 15, 2023 *Administrative Law Judge's Ruling On Track B Staff Proposal to Expand Existing Pilots* ("Ruling") and August 24, 2023 procedural email ruling granting extension for Track B ruling comments, Valley Clean Energy Alliance ("VCE") submits these opening comments.

I. INTRODUCTION

VCE strongly supports the Staff Proposal. It is an example of the California Public Utilities Commission's ("Commission") foresight and leadership in implementing electricity policies designed to increase reliability and better utilize renewable sources of electricity. As discussed in the Staff Proposal, VCE's agricultural dynamic rates pilot implemented pursuant to D.21-21-015 ("AgFIT") has already shown success in supporting California's summer reliability efforts within its limited scope, and has demonstrated significant potential to employ dynamic pricing to shift load off peak. Expansion of AgFIT is the right move for California at this time.

VCE is grateful to Energy Division staff ("Staff") for their vision and hard work in inspiring, implementing and studying the initial results of the AgFIT pilot. We applaud the Energy Division for acting with appropriate urgency to propose expansion upon the initial success of AgFIT by allowing significantly more customers to participate and extending the pilot by three years. This is a sound move both to obtain near-term benefits of the load-shifting potential of AgFIT, but also while the Commission develops more permanent dynamic rates pursuant to the

California Energy Commission Load Management Standards requirements. VCE is also grateful to ALJ Wang for timely issuance of the Ruling and establishing a schedule that could enable many more customers to participate in AgFIT beginning next summer.

VCE's comments below primarily address Expanded Pilot Proposal #1 ("Expanded Pilot #1") and Expanded Pilot Proposal #2 ("Expanded Pilot #2"), based on its experience implementing AgFIT since 2022. VCE also supports Expanded Pilot Proposal # 3 ("Expanded Pilot #3") as a general matter. VCE appreciates the Ruling's invitation to provide more information on estimated budgets for the expanded pilots and has done so in the attachments and text herein. VCE notes that the Staff Proposal did not fully address all categories of funding which VCE believes, based on our operational experience, are critical to the success of the expanded pilots. These categories include funding for load automation technology and participating load-serving entity ("LSE") administrative expenses in implementing the pilots, performing appropriate marketing, education and outreach ("ME&O") and in providing energy savings benefits to customers.

II. <u>RESPONSES TO RULING QUESTIONS</u>

A. Questions for PG&E, SCE and CCAs

3. VCE and other CCAs interested in participating in the Expanded Pilots are invited to comment on the amount of ratepayer funding that would be required to enable unbundled customers in their service areas to participate in the Expanded Pilots, if any. The comments on ratepayer funding should include a table with a breakdown of costs by category (e.g., administration, incentives) and whether non-ratepayer sources of funds are available to cover implementation costs or provide additional automation incentives.

Please see attached <u>**Table 1**</u> and <u>**Table 2**</u>, which include a breakdown of estimated costs by category in ratepayer funding that would be required to enable <u>VCE's unbundled customers</u> to participate in Expanded Pilot #1 and Expanded Pilot #2, respectively. In summary, VCE estimates a total of $1,000,000 for Expanded Pilot #1 and $1,000,000 for Expanded Pilot #2 in ratepayer funding for incentives for the installation of load integration and automation technology and $1,350,000 for Expanded Pilot #1 and $1,790,000 for Expanded Pilot #2 in ratepayer funding for VCE's administrative costs, including program management and support, ME&O, billing operations, annual energy savings settlement payments to participating customers, customer care and support, VCE technical support to other LSEs and other costs as further detailed in **Table 1** and **Table 2**.

These budgets assume 5 MW of additional VCE customer load participation in Expanded Pilot #1 and 2.5 MW of VCE customer load participation in Expanded Pilot #2. If additional load beyond these estimates were to participate in either pilot, the figures would be higher. VCE does not currently have budget estimates for the vendor systems and technology required for these expanded pilots (i.e., license and service fees for third-party vendors providing the dynamic rates and shadow billing components of AgFIT). It is VCE's understanding that PG&E will be providing a proposed budget in its comments that includes its estimated costs for such vendor technology fees as well as PG&E's administrative costs, including the costs of the independent evaluations. VCE reserves comments on these components of the budgets for reply comments.

The estimates in **Table 1** and **Table 2** do not include VCE's costs to enroll, provide ME&O, provide automation technology deployment and funding, calculate and provide shadow bills, fund customer savings for customers or other implementation tasks other than with respect to its own unbundled retail generation customers. VCE notes that it would not expect to directly serve such LSEs' customers in these ways unless engaged to do so by such customer's generation LSE, and that such services would require additional financial resources beyond what is included in **Table 1** and **Table 2**. VCE would of course assist with AgFIT expansion by providing reasonable technical support and sharing details and processes with other LSEs, and VCE's budgets in **Table 1** and **Table 2** do reflect the costs of such support.

At this time, VCE is not aware of non-ratepayer funding sources that will be readily available to fund Expanded Pilot #1 and Expanded Pilot #2 by their proposed start dates. On **Attachment A** hereto, VCE has listed several potential state funding resources that could be used to support elements of the AgFIT expansion budget, the level of certainty that such funding could be directed for this purpose, and the potential dates that such funding could be available. VCE urges the Commission and other stakeholders to join with VCE in encouraging the appropriation of funds by the Legislature and the allocation of funding by the California Energy Commission ("CEC"), as applicable, to be used for AgFIT pilot expansion and other dynamic rate implementation efforts, as discussed on **Attachment A**.

B. Questions for All Parties

1. Should the Commission authorize Expanded Pilot Proposal #1 to extend the VCE AgFIT Pilot, remove the participation cap, and expand eligibility to all agricultural customers in PG&E territory?

Yes. VCE strongly supports Expanded Pilot #1 to extend AgFIT, remove the participation cap and expand eligibility to all agricultural customers in PG&E territory. AgFIT provides significant potential to shift and shape load to better reflect grid needs and complement the state's zero carbon energy goals. This potential is demonstrated by the independent, third-party preliminary assessment of AgFIT as discussed in more detail below. Extension of the number of years of pilot operation will also provide more valuable data to the Commission, LSEs, customers and other stakeholders in our process of broader adoption of dynamic rates in line with SB 846 and the CEC Load Management Standards ("LMS"). In response to the *Assigned Commissioner's Phase 1 Scoping Memo and Ruling* issued on November 11, 2022 ("Scoping Memo"), several parties filed comments supporting AgFIT pilot expansion as soon as possible to enable California to benefit from this near-term summer reliability enhancement.[1] VCE applauds the Energy Division for this timely and well-founded proposal.

a. ***Please comment on whether the initial results of the VCE AgFIT Pilot indicate that the pilot has been successful at supporting system reliability to date. (See the attached interim evaluation report.)***

The initial results of the VCE AgFIT Pilot show that AgFIT has been successful at supporting system reliability to date and that it holds tremendous potential for future customer load shifting and shaping. Attachment B to the Ruling, "Preliminary Assessment of Valley Clean Energy's (VCE) Agricultural Pumping Dynamic Rate Pilot" ("Independent Preliminary Assessment") was conducted by the independent, third-party evaluators Dan Hansen and Mike Clark of Christensen Associates engaged by PG&E to perform a mid-term evaluation of AgFIT, pursuant to D.21-12-015. The chart on page 7 of the Independent Preliminary Assessment demonstrates the impact of technology incentivized by AgFIT to automate agricultural irrigation pumping load and dynamic pricing. These factors led to a clear reduction in customer load at peak and in the surrounding hours, creating in essence a mirror image of the notorious duck curve for the participating customers. As observed by Staff, "The preliminary assessment highlighted that pilot participants were able to reduce their peak period usage in August 2022 by nearly 50% relative to August 2021."[2]

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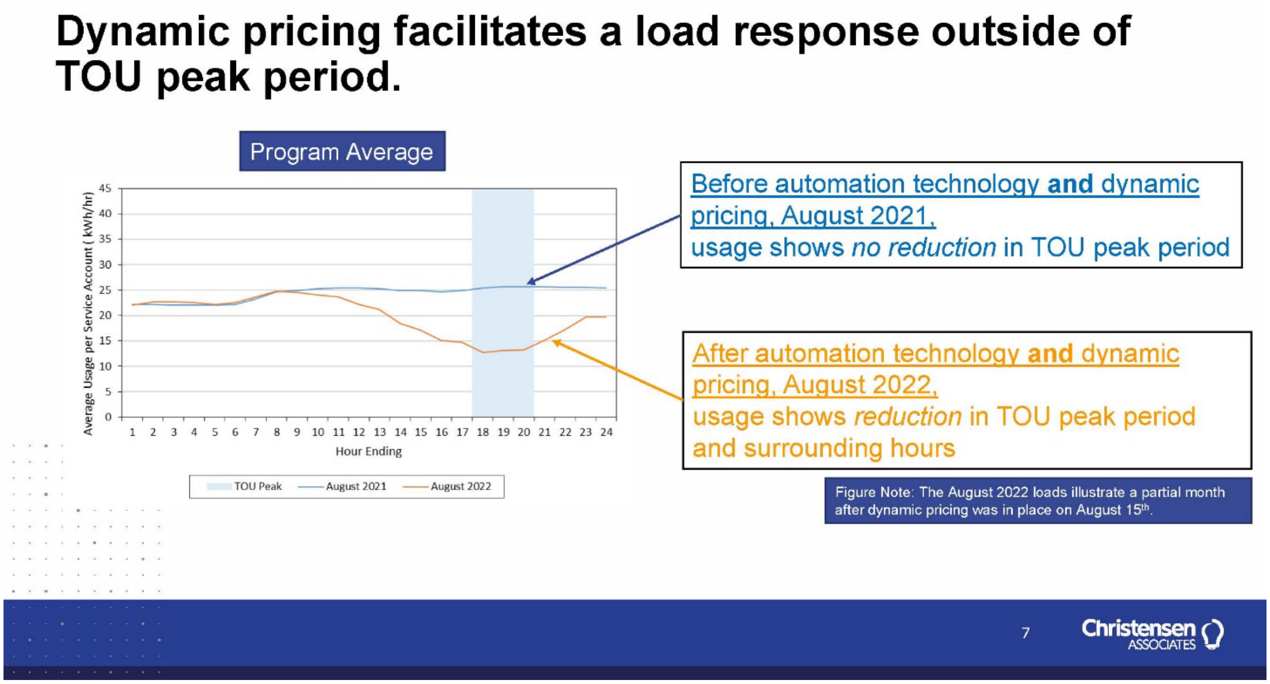
[1] *See, e.g.*, R.22-07-005, California Community Choice Association's Comments on Assigned Commissioner's Phase 1 Scoping Memo and Ruling (December 2, 2022) ("CalCCA Opening Scoping Memo Comments") at 5-10; Opening Comments of Polaris Energy Services on Assigned Commissioner's Phase 1 Scoping Memo and Ruling (Dec. 2, 2022) ("Polaris Opening Scoping Memo Comments") at 2-3; Reply Comments of the Utility Consumers' Action Network on the Assigned Commissioner Alice Reynolds November 2, 2022, Scoping Memo and Ruling Requesting Party Comments (Jan. 4, 2023) at 2-4; Reply Comments of Microgrid Resources Coalition on Assigned Commissioner's Phase 1 Scoping Memo and Ruling (Jan. 4, 2023) at 18.

[2] Preliminary Assessment at 4.



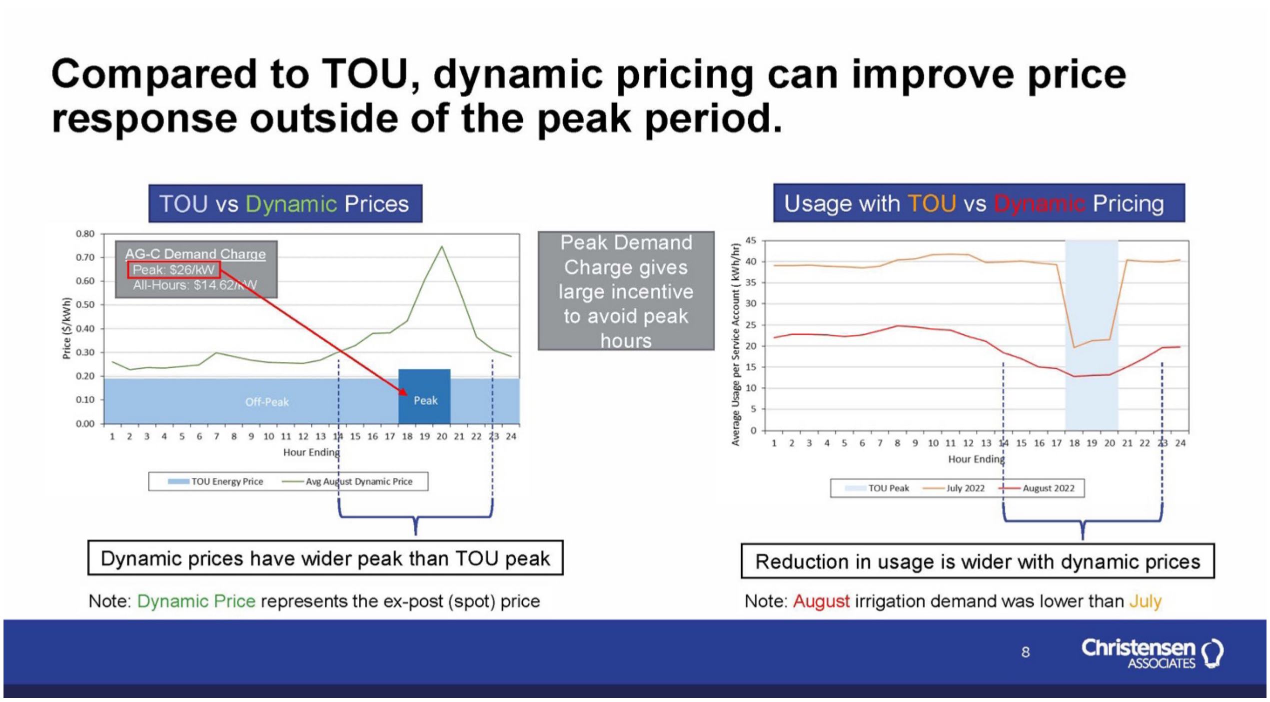
Independent Preliminary Assessment, Slide 7.

While the Independent Preliminary Assessment focused on one month of AgFIT implementation in 2022, the results from other months of AgFIT operation are consistent.

The Independent Preliminary Assessment also found that "[t]he pilot makes it simple for participants to decide when to purchase load based on price."[3] AgFIT does this by funding and deploying technology to automate pumping, providing dynamic offer prices one (1) to seven (7) days in advance, allowing customers to schedule pump run times accordingly and allowing the flexibility for day-of usage decisions by customers as well.[4] As further discussed below, VCE also makes dynamic price response easy for its customers with targeted ME&O that meets its customers "where they are."

[3] *Id*. at 11.
[4] *Id*. at 4.

The Independent Preliminary Assessment found that "[a]utomation enables load response for BOTH [time-of-use ("TOU")] and Dynamic Pricing tariffs"[5] and recommended that "[i]ncentivizing the adoption of automation technologies for agricultural customers may provide benefits under both rate structures."[6] The study noted that, "[c]ompared to TOU, dynamic pricing can improve price response outside of the peak period" in a wider band of hours.[7] The load shape achieved with the combination of automation technology and dynamic pricing more closely reverses the shape of the duck curve over a 9-hour period, as opposed to the sharper, narrower and more binary result achieved with time-of-use pricing alone.



Independent Preliminary Assessment, Slide 8

[5] *Id*. at 11.
[6] *Id*. at 12.
[7] *Id*. at 8.

The initial results of AgFIT have shown that dynamic pricing better represents grid needs with greater resolution, closer to a real time pricing signal (as compared to the far more blunt tool of TOU pricing).

As the Staff Proposal summarized, AgFIT "has shown initial success in shifting load during ramp and peak hours."[8] AgFIT has demonstrated significant and impressive results thus far, with exciting implications for California's energy reliability and greenhouse gas reduction goals. The Independent Preliminary Assessment provides strong support for the Staff Proposal to expand AgFIT.

b. Do you support the staff proposal modifications to eligibility for the pilot?

Yes. Expanding AgFIT eligibility to all bundled and unbundled customers in PG&E territory is appropriate and warranted. In their post-prehearing conference statement, VCE and Central Coast Community Energy cited Lawrence Berkeley National Laboratory's *California Demand Response Potential Study Phase 3 Final Report* ("LBNL Phase 3 Final Report") which concluded that there is impactful "low hanging fruit" to be harvested by shifting agricultural load to more optimal times of the day to reduce curtailment and the evening generation ramp.[9] That report found that agricultural irrigation pumping and processing demonstrates one of the highest amounts of cost-effective shift potential among various load types, particularly in PG&E's territory:

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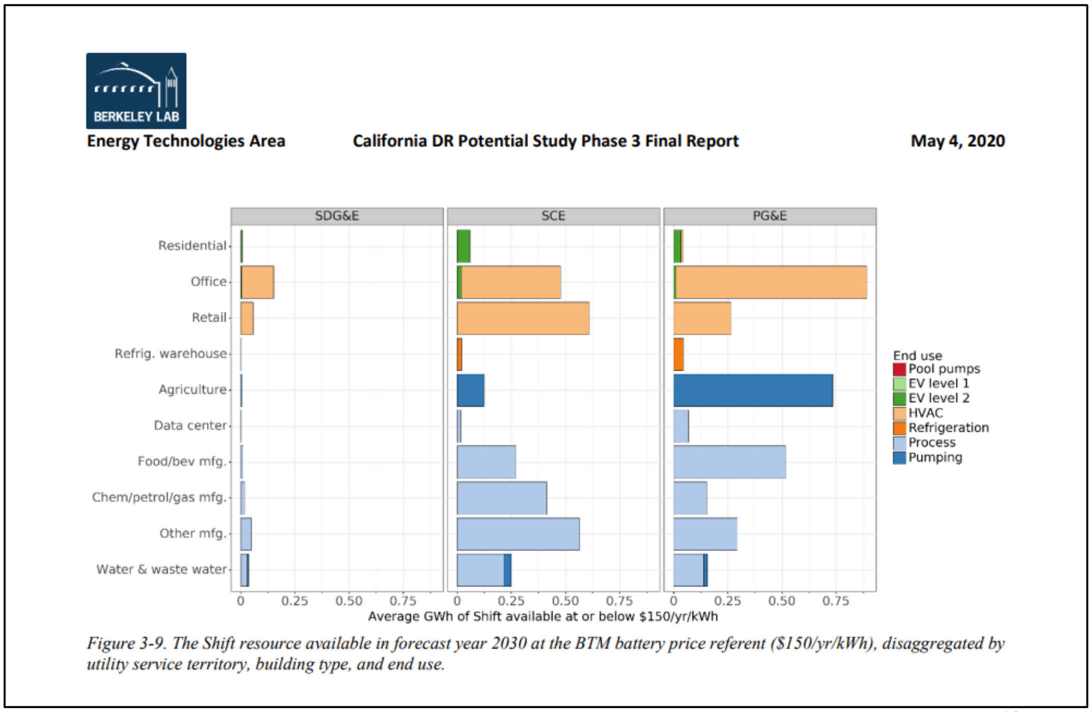
[8] Staff Proposal at 3.

[9] Post Prehearing Conference Statement of Central Coast Community Energy and Valley Clean Energy Alliance (Sept. 27, 2022) at 2 (citing 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).



California Demand Response Potential Study Phase 3 Final Report, Figure 3-9[10]

Accordingly, it is reasonable and advisable to broaden eligibility for AgFIT to all customers, bundled and unbundled, within PG&E's distribution territory.

Expanding the pilot to all customers in PG&E territory will expand the load-shifting benefits of AgFIT to California's grid in the near term as we face an urgent summer reliability crunch. This is favorable to waiting the several years expected for the establishment of more permanent dynamic rates following later phases of this docket and in line with CEC LMS. Expansion of AgFIT in the near term and across PG&E territory will also enable other LSEs and other agricultural customers to gain experience implementing dynamic rates as required by LMS. An important benefit of AgFIT expansion articulated by the Energy Division is:

> Enabling utilities and CCAs to gain important operational experience in offering dynamic rates to customers across different applications and capabilities, which should help advance their technical and operational readiness and deployment

[10] *Id*. at 49, Figure 3-9, showing the "Shift resource" available in forecast year 2030 at the behind-the-meter battery price referent ($150/year/kWh), disaggregated by utility service territory, building type, and end use.

> timelines to offer widespread hourly, marginal-cost-based dynamic rates consistent with [LMS].[11]

VCE agrees that it has achieved crucial operational experience with dynamic rates in just the first two growing seasons of AgFIT operation, and that such experience will benefit other LSEs. Moreover, VCE generally agrees with Staff that since the AgFIT pilot partners and PG&E have established systems to facilitate the implementation and operation of the AgFIT, expanding the pilot to a wider customer base is feasible. Such expansion will require investment to ensure that incentives and ME&O are adequate to recruit, support and maintain customer participation in the expanded pilot. VCE's budget information included in these opening comments that is derived from operational experience incorporates these elements (incentives and ME&O), which do not appear to be fully addressed in Staff's initial budgetary needs assessment for the proposed pilot expansion. VCE also agrees with Staff that Expanded Pilot #1 will enable more customers to become familiar with dynamic pricing.[12]

In addition, the Staff Proposal to expand the types of agricultural load eligible for participation makes good sense, as VCE believes there are other loads that are readily adaptable to automation and this dynamic rate design. For example, agriculture processing and charging of farm-based electric vehicles and equipment would be extremely valuable additions to the AgFIT pilot, providing additional data and experience for LSEs and customers. VCE supports the Staff Proposal to open the pilot to non-pumping loads.

VCE supports the Staff Proposal to exclude customers enrolled in IOU and LSE Demand Response ("DR") programs that qualify for Resource Adequacy, the Demand Response Auction Mechanism, the Emergency Load Reduction Pilot, Flex Market Pilot, PG&E's Day-Ahead Real-

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[11] Staff Proposal at 2.
[12] *Id.* at 4.

Time Pricing Pilot ("DAHRTP"), Critical Peak Pricing, and event-based load modifying programs or pilots operated by the IOU or LSE. The hourly prices used in AgFIT are designed to capture spikes in the CAISO market and communicate that grid stress to participating customers through high AgFIT prices. Dual enrollment in another DR program that mimics high market prices could be redundant, cloud the analysis of program impact and complicate customer compensation.

VCE supports the Staff Proposal's inclusion of customers on TOU, electrification, PG&E's Smart Rate, net energy metering ("NEM") and net billing tariffs ("NBT") (including those with electric vehicles), base interruptible and Agricultural Pumping-Interruptible programs and the inclusion of behind-the-meter storage, bidirectional EV supply equipment in Expanded Pilot #1.

VCE expects that VCE would continue to administer AgFIT for VCE unbundled customers as part of Expanded Pilot #1 in the manner it has for AgFIT thus far. As noted in Section II(A)(3) above, although VCE supports the Staff Proposal is to open eligibility for AgFIT to all bundled and unbundled customers in PG&E territory, VCE does not expect to enroll, provide ME&O, provide automation technology deployment and funding, calculate and provide shadow bills, fund customer savings for customers or perform other implementation tasks other than with respect to its own customers, unless such services were separately negotiated and contracted for with such customer's generation LSE with additional financial resources. Again, VCE would be glad to facilitate AgFIT expansion by providing reasonable technical support to other LSEs.

c. Do you support the staff proposal modifications to the duration and/or size of the pilot?

i. <u>Expanded Pilot #1 Duration</u>

VCE recommends that the Commission's decision include a slight modification to the duration of Expanded Pilot #1, such that:

- Expanded eligibility for participation to all bundled and unbundled customers in PG&E's service territory and all types of agricultural load, and the lifting of the capacity cap go into effect for the Spring/Summer 2024 growing season (beginning May 1, 2024); and
- The duration of the pilot authorization last through the 2027 Spring/Summer growing season, with funding approved through April 30, 2028 to allow for shadow bill distribution, settlement payments of customer savings and final evaluation.

The rationale for this change is that D.21-12-015 provided that the AgFIT pilot would "last for three years (2022-2024)" beginning May 1, 2022.[13] Because AgFIT is focused on agricultural irrigation pumping load, it has a seasonal focus on the Spring through Summer growing season. The existing authorization of AgFIT under D.21-12-015 provides for customer participation over three growing seasons in each of 2022, 2023 and 2024, and then time for the preparation of shadow bills, provision of customer savings amounts to customers and production of the final independent evaluation of AgFIT ordered by D.21-12-015, which is due from PG&E by March 1, 2025.[14]

Accordingly, VCE agrees that all bundled and unbundled customers in PG&E's service territory should be eligible to participate in AgFIT beginning May 1, 2024 for the four growing seasons of 2024, 2025 and 2026 and 2027. VCE suggests that eligibility begin in May to fully capture the Spring/Summer growing season when most irrigation pumping occurs. For VCE's customers, the removal of the capacity cap and expansion of AgFIT eligibility to all types of agricultural load should go into effect in May of 2024 and be effective for four years, rather than three. Funding for the administrative and evaluative finalization activities should be effective through April 30, 2028.

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[13] D.21-12-015 at 92.
[14] *Id*. at 92, 94.

ii. Expanded Pilot #1 Size

VCE supports the removal of the capacity cap on AgFIT as proposed by the Energy Division.[15] The Staff Proposal is supported by comments on the record in response to the Scoping Memo.[16] VCE agrees with Staff that the cap is not necessary in light of the near-term summer reliability benefits of AgFIT, the percentage of its customers that are agricultural and the need for LSE and customers to gain experience with dynamic pricing as we move to the LMS requirements and implement SB 846.

d. Do you recommend additional marketing, education, and/or outreach for this pilot? If so, please provide details and a proposed budget.

Absolutely. VCE and the AgFIT partners consider ME&O to be a critical leg of the "three-legged stool" that has enabled AgFIT's success thus far (the other legs being strong price signals and load automation). As VCE and Polaris observed in their OIR comments, "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."[17]

General observations by VCE regarding ME&O from the initial stages of the AgFIT pilot include the need and value of clearly demonstrating the opportunity and benefit of participation to the customer and how to achieve it; and the need and value of close-in support and coaching, especially at the beginning of a customer's participation. Based on participant on-boarding discussions, it has also been important for the customer to understand why shifting load is important. Our observation is that while grid reliability may not be a primary factor in a customer's decision to participate, it appears that helping to solve a large statewide problem may carry weight in the decision-making process. Since a portion of the early adopter agricultural customers in

[15] Staff Proposal at 5.
[16] *See* CalCCA Opening Scoping Memo Comments at 9; Polaris Opening Scoping Memo Comments at 3.
[17] VCE and Polaris Opening Comments on OIR (Aug. 15, 2022) at 4.

VCE's service territory have already been successfully recruited for the original AgFIT pilot, VCE believes that for deeper recruitment success in an expanded AgFIT pilot, additional ME&O budget will be necessary. Adequate ME&O support, in combination with positive word-of-mouth from respected voices in the local agricultural sector about a program that is straightforward and has the potential to deliver benefits is the best way to grow participation in the AgFIT pilot (and dynamic pricing in this sector more generally).

Table 1 attached hereto includes VCE's estimated costs for its participation in Expanded Pilot #1, including its customer recruitment, education, outreach and support efforts. VCE would need the Commission to approve the inclusion of at least $1,350,000 in ratepayer-funded administrative costs in order to participate in Expanded Pilot #1 with respect to its own customers (with the assumptions set forth above and on **Table 1** relating to the amount of anticipated new participating customer load). VCE expects that other participating CCAs will have slightly higher ME&O costs for Expanded Pilot #1, owing to their current lack of familiarity with the pilot.

e. Do you agree with the staff estimates of the costs of expanding and extending the pilot?

VCE believes that the Staff Proposal's cost estimates for Expanded Pilot #1 are incomplete and in need of refinement. First, the $2.25 million proposed does not include funding of the incentives to cover the costs of load automation technology.[18] D.21-12-015 authorized $1,000,000 for the "integration and automation of pumping loads with the pilot price signal"[19] up to $200 per kW of shiftable load as a one-time payment for potentially up to five (5) years if AgFIT is extended.[20] Based on VCE's experience implementing AgFIT, these incentives were extremely

[18] *See* Staff Proposal at 5-6.
[19] D.21-12-015 at 95.
[20] *Id.*, note 178 ("For pump integration and automation, in lieu of Auto DR funds, customers, or the customers' pumping automation technology provider, may be funded up to $200 per kW of shiftable load

important in attracting customers to participate in the optional AgFIT pilot. Moreover, the Independent Preliminary Assessment found that automation enables load response to both TOU and dynamic pricing tariffs and recommended "[i]ncentivizing the adoption of automation technologies for agricultural customers."[21] In VCE's experience, automation incentives cost $200 per shiftable kW of load for each service point, calculated on the basis of peak load under management for its agricultural irrigation pumping customers. Based on VCE's estimate of additional 5 MW in shiftable agricultural load in its service territory, VCE recommends the authorization of $1,000,000 or $200 per kW of participating load for each service point, whichever is higher, to support automation incentives for VCE's customers for Expanded Pilot #1.[22]

Second, the Staff Proposal does not include sufficient funding for administration of AgFIT by LSEs other than PG&E. The Staff Proposal appears to rely on D.21-12-015's allocation of $750,000 for program administration. Yet, D.22-06-005 authorized the allocation of an additional $690,000 to VCE for its administrative costs in carrying out AgFIT,[23] finding:

> It is likely that VCE will reasonably incur $690,000 of costs throughout the lifetime of the VCE Pilot for administrative activity, including program management staff, marketing, education and outreach, shadow bill development, testing, implementation, support and postage, customer support and legal expenses. <u>These costs that will likely be incurred by VCE are just and reasonable and necessary for implementation of the Pilot as ordered in D.21-12-015</u>.[24]

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as a one-time payment with a minimum three-year participation requirement, or for the duration of the pilot if it is extended up to a maximum of five years. To reduce any delays in implementation of the program, the funding may be provided on an aggregated basis to a pumping automation technology provider with multiple participating customers.").

[21] Independent Preliminary Assessment at 2, 6, 7, 12.

[22] For clarity, VCE notes that this is in addition to the existing 5 MW of load under the original AgFIT program approved in D.21-12-015 and in addition to funding already approved for the existing AgFIT pilot.

[23] D.22-06-005, Ordering Paragraph 1.

[24] *Id.*, Finding of Fact 7 (emphasis added).

In so doing, the Commission acknowledged that AgFIT "needs sufficient funding to be successful and fulfil its initial purpose."[25]

For Expanded Pilot #1, VCE estimates that its additional administrative costs would be $1,350,000. VCE anticipates that other LSEs' administrative costs would be higher than VCE's, given that they have not yet had the experience of running a similar pilot. VCE recommends that the Commission authorize sufficient administrative funding to make Expanded Pilot #1 successful.

VCE does not agree with Staff's assertion that "the pilot budget for Expanded Pilot #1 will be sufficient for to fund the Vendor fees, and the Systems & Technology for Expanded Pilot #2." Expanded Pilot #1 and Expanded Pilot #2 are larger in scope than the original AgFIT Pilot and will result in additional cost to implement.

f. Do you support the proposed timing of implementation of the Expanded Pilot (starting June 2024)?

As discussed above, VCE supports the commencement of Expanded Pilot #1 in May of 2024 in order to allow additional customers in PG&E's service territory and additional types of agricultural load to participate for the full 2024 growing season. Even if a Commission decision to expand AgFIT were approved in Q4 of 2023, interested LSEs other than VCE and PG&E may need a bit more time to educate and enroll potential customers, roll out automation technology and be ready to offer the dynamic rates. Thus, VCE supports a May 1, 2024 commencement date, but would not want to see any LSEs penalized for not initiating the pilot by this date.

Please see VCE's response in Section II(B)(1)(c)(i) above regarding the duration of Expanded Pilot #1.

[25] D.22-06-005 at 8.

2. *Should the Commission authorize Expanded Pilot Proposal #2 to expand eligibility of the VCE AgFIT Pilot to certain commercial and residential customers in PG&E territory with no participation cap?*

Yes, VCE strongly supports Expanded Pilot #2 in the Staff Proposal. For all of the reasons set forth above, VCE emphasizes that the AgFIT model enables customers to shift load to a pattern that better supports grid needs and California's greenhouse gas emissions goals. Allowing additional types of customer load to participate will further expand LSE, customer, vendor, regulator and other stakeholder experience with and understanding of dynamic rates and their implementation.

a. Do you support the proposed modifications to eligibility for the pilot?

Yes. VCE supports application of the AgFIT model to customers on PG&E's B-19, B-20 and E-ELEC rates (or CCA equivalent). The LBNL Phase 3 Final Report found that some of the most significant "shift resources" through 2030 in California are industrial process, heating, ventilation and air conditioning ("HVAC").[26] Expanding the AgFIT model to medium and large commercial customers would enable participation by such process and HVAC loads. This will enable LSEs, the Commission and other regulators to study how other load types respond to the dynamic pricing structure included in AgFIT, customer savings that could be achieved and, ideally, the impact of load automation.

VCE is also supportive of the expansion to include residential customers through the E-ELEC rate. VCE is aware of advanced research pilot level deployment of Advanced Home Energy Management Systems ("AHEMS"), that will provide the technology for automated household load. VCE believes there is an imminent opportunity to use its existing AgFIT pricing platform with the expanded eligibility under Expanded Pilot #2 to recruit households to help test the

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[26] LBNL Phase 3 Final Report at xiii; *see also id*. at 46 (Figure 3-6), 47 (Figure 3-7), 49 (Figure 3-9).

application of dynamic pricing with such automated loads in the residential sector. Furthermore, under an existing federal American Recovery Plan ("ARP") funded program, VCE is working with Yolo County to engage CARE/FERA customers who had a difficult time paying their electricity bills during the pandemic to provide information about ways to save money on their energy bills. If Expanded Pilot #2 is approved with adequate funding for ME&O and incentives, VCE would use this existing platform to engage prospective income-qualified households to participate both in AHEMs and in the AgFIT dynamic pricing model. This strategy builds on these existing aligned efforts, combining ratepayer and non-ratepayer funds to support the Commission's objectives to deploy workable dynamic pricing solutions in households across a full range of income levels.

In addition, VCE proposes that additional rates be included in Expanded Pilot #2 for specific use cases that would allow public agencies with shiftable load the option to participate. Examples include cities, counties, school districts, colleges, transit districts, etc. Many of these public institutional electricity users have goals or mandates (or both) driving them to electrify fleets, equipment and processing, and to use electricity more wisely. Importantly, these customers have pre-existing relationships with many LSEs (*e.g.*, CCAs who were formed by their member jurisdictions), making recruitment and on-boarding smoother. Market-based price signals coupled with properly designed control systems and support would allow these types of customers to help further operationalize dynamic pricing and learnings from Expanded Pilot #2. Therefore, VCE suggests the following rates be added to Expanded Pilot #2:

- B1 (small general service);
- B6 (small general TOU service);
- B10 (medium business with moderate energy demand consistently under 500 kW and includes a demand charge per kW based on maximum load); and

- BEV2 (for EV charging installations of 100 kW and above. Best suited for sites with fleets and fast-charging stations).

b. Do you support the proposed modifications to the duration and size of the pilot?

It is reasonable for the duration of Expanded Pilot #2 to be consistent with the duration of Expanded Pilot #1. Thus, consistent with VCE's comments in Section II(B)(c)(i) above, VCE suggests revisions to the Staff Proposal to clarify that the effective date for customer participation in Expanded Pilot #2 commence on May 1, 2024, and that pilot participation run through December 31, 2027. LSE administrative activities associated with Expanded Pilot #2 (provision of shadow bills, settlement of savings payments and assistance with preparation of the final independent evaluation) should be authorized and funded through April 30, 2028.

VCE also agrees that there is no need for a capacity cap for Expanded Pilot #2. Gaining more experience with dynamic pricing for more customer types and by more LSEs is a good thing, and in our experience, does not roll out quickly enough that LSEs would be overwhelmed with customer participation.

c. Do you recommend additional marketing, education, and/or outreach for this pilot? If so, please provide details and a proposed budget.

Yes. Please see VCE's response to question II(B)(1)(d) above regarding the importance of robust ME&O efforts to the success of AgFIT. Application of the AgFIT model to new customer classes, particularly residential customers on PG&E's E-ELEC or CCA equivalent will require new ME&O approaches, new customer care expertise and incentives to attract, enroll, and maintain participation in the Pilot. Please see rows 15-18 of **Table 2** attached hereto, which includes VCE's estimated costs for its participation in Expanded Pilot #2 with respect to VCE's unbundled customers.

d. Do you agree with the proposed estimates of the costs of expanding and extending the pilot?

VCE believes that the Staff Proposal to authorize $750,000 in funding for program administration, including billing, evaluation and ME&O for Expanded Pilot #2 is incomplete and in need of refinement. As it stands, the budget for Expanded Pilot #1 in the Staff Proposal is insufficient to properly support that pilot. It does not follow that the budget for Expanded Pilot #2 should be smaller. The level of complication in adding additional eligible rates should not be underestimated, though VCE believes in the importance of expanding the AgFIT model to new rate schedules. That level of complication is reflected in VCE's proposed budget for participation of VCE's unbundled customers in Expanded Pilot #2, which includes additional costs for adapting AgFIT to additional rates, including expanded ME&O costs, as well as more involvement by our customer care team. VCE anticipates that the inclusion of new rates will result in recruitment that takes longer than the original AgFIT Pilot, as well as more customer inquiries due to the nature of an entirely new rate structure.

As discussed above, VCE believes that incentivizing the deployment of load automation technology is pivotal to the success of the AgFIT pilot and any expansion under Proposed Pilot #2 to include additional rate classes. VCE estimates that the cost of load automation technology in the commercial and residential sectors will be higher than it is for agricultural irrigation pumping load. VCE bases this estimation on the LBNL Phase 3 Final Report, which provided data on the installed costs (circa 2015) of various shift-enabling technologies for different load types. The study showed that costs were far lower for pumping load than for space cooling, space heating, water heating, and HVAC loads, for example.[27] In calculating load automation technology costs for Expanded Pilot #2 in **Table 2**, VCE estimated that on average such technology will cost

[27] LBNL Phase 3 Final Report at 60, Figure 3-17.

$400/kW of participating load (as compared to $200/kW of participating load for agricultural pumping customers in Expanded Pilot #1) and recommends $1,000,000 in ratepayer funding for participation of VCE's customers, based on an estimate of 2.5 MW of potential participating load.

Second, Staff's assumption that "the pilot budget for Expanded Pilot #1 will be sufficient [sic] to fund the Vendor fees, and the Systems & Technology for Expanded Pilot #2" is not supported by the current AgFIT program technology vendors. VCE does not have the current estimates of the vendor fees, systems and technology costs for Expanded Pilot #1 and Expanded Pilot #2, but it is our understanding that PG&E will be presenting these estimates with its comments, and we will reserve further comment on this point for reply comments.

Finally, VCE does not believe that $750,000 is sufficient to cover the administrative costs of LSEs other than PG&E, but the Staff Proposal is suggesting that all bundled and unbundled customers in PG&E's service territory should be eligible for Expanded Pilot #2. VCE recommends that the Commission avoid the ambiguity with respect to the original AgFIT administrative budget that led to several months of filings and the unnecessary expenditure of LSE and Commission time. Instead, the Commission should fund Expanded Pilot #2 in a manner that is sufficient to enable its success. As the Commission already concluded "the program needs sufficient funding to be successful and fulfil its initial purpose."[28]

e. Do you support the proposed timing of implementation of the Expanded Pilot (starting June 2024)?

As in VCE's response in Section II(B)(1)(f) above, while VCE supports authorization of Expanded Pilot #2 beginning in May of 2024, no participating LSE should be penalized if it is not ready to commence operations of this pilot by such time.

[28] D.22-06-005 at 8.

3. Should the Commission authorize Expanded Pilot Proposal #3 to extend the duration of the SCE Dynamic Rate Pilot and expand pilot eligibility?

VCE is generally supportive of Expanded Pilot #3. At this time, VCE has no specific experience with or knowledge of the details of SCE's Dynamic Rate Pilot and defers to SCE and CCAs within SCE's service territory with respect to specific details regarding Expanded Pilot #3.

4. Please comment on the proposed evaluation requirements that would apply to the three Expanded Pilots in the Staff Proposal.

VCE supports the evaluation requirements for the expanded pilots set forth in Section 4.3 of the Staff Proposal. A key aspect of the evaluations required for AgFIT under D.21-12-015 is that they were required to be conducted by an independent third party, and were managed by, and paid through, PG&E's administrative budget (i.e., not the participating LSE, PG&E, a pilot vendor or the Commission).[29] The budget estimates to enable VCE to participate in Expanded Pilot #1, set forth in **Table 1** hereto, and Expanded Pilot #2, set forth in **Table 2** hereto, assume that evaluation expenses are within PG&E's share of the administrative budget.

5. Please comment if any existing Commission requirements or utility program rules may impede customer participation in any of the Expanded Pilots, and if so, explain how such requirements should be modified for the purpose of pilot participation.

With respect to the subscription component of AgFIT, VCE strongly recommends that the Commission decision on pilot expansion provide LSEs with the flexibility to continue to offer the adjusted price methodology as VCE and PG&E have done in "AgFIT 2.0" (the implementation of the subscription component utilized in the summer of 2023, which uses an adjusted average price methodology to compute the generation subscription component). Through its experience implementing AgFIT, VCE learned of drawbacks to the "2-part tariff" described on page 7 of the Staff Proposal. We therefore recommend adoption of flexibility with respect to the subscription

[29] *See* D.21-12-015 at 94.

element of AgFIT or that the Commission adopt the AgFIT 2.0 methodology for Expanded Pilot #1.

VCE recommends that Expanded Pilot #1 and Expanded Pilot #2 allow for flexibility for PG&E and other participating LSEs to work with other third-party vendors aside from the original AgFIT pilot partners. Vendor capabilities and technology can change over time, and the Commission should not lock in any one particular service provider through a Commission decision. VCE asserts that the independence of the evaluator is critical to the credibility of the evaluation, and recommends that the Commission decision on pilot expansion include the independent evaluator concept employed in AgFIT.

VCE also recommends improvements to access to PG&E data for other LSEs participating in the expanded pilots to better enable calculation of shadow bills. VCE also recommends designation of a clear point of contact at PG&E for assistance and resolution of such technical issues for LSEs participating in AgFIT to facilitate participation in the expanded pilots.

6. Are the proposed modifications to the VCE AgFIT Pilot and SCE Dynamic Rates Pilot consistent with the Commission's Rate Design Principles and Demand Flexibility Design Principles? If not, please provide specific ways to make the proposed modifications consistent with these principles.

VCE generally agrees that Expanded Pilot #1 and Expanded Pilot #2 are consistent with the Commission's Rate Design Principles and Demand Flexibility Principles set forth in Attachment A of D.23-04-040. With respect to the Demand Flexibility Principle (iii), the Commission's desire to have transmission capacity included in the hourly prices seems to VCE to be infeasible at this time based on its experience implementing AgFIT thus far, but this factor could be incorporated into more permanent dynamic rates in the future. The pilot expansions will provide valuable insight into the affordability of dynamic pricing. While AgFIT is not technology-specific, participation/performance relies heavily on automation equipment. Incentivizing automation is important for encouraging customer participation from all income levels. The potential cost shift from AgFIT is still unknown, and further analysis from the expansions could shed light on the subject. VCE believes that savings achieved by reductions in LSE energy and Resource Adequacy procurement requirements at peak and other times of grid constraint achieved through AgFIT and expansions thereof could mitigate any potential unintended cost shift and provide benefits to all ratepayers.

III. CONCLUSION

VCE greatly appreciates the Commission's leadership in implementing dynamic rate pilots such as AgFIT. VCE urges the Commission to adopt the Staff Proposal with the revisions and modifications discussed above at its earliest convenience. Such a decision will enable more load shifting to support the reliability of California's grid in the near-term and will expand the opportunities for LSEs, customers, regulators and other stakeholders to gain valuable experience with dynamic rates.

Respectfully submitted,

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On behalf of Valley Clean Energy Alliance

September 25, 2023

Table 1
Estimated Costs for Expanded Pilot #1

Cost Category Pilot #1	Draft Budget	Ongoing or One-time?	Notes
Integration & Automation Incentives	**$ 1,000,000.00**		
Incentives for automation hardware and software given to customers		Ongoing	Assuming 5MW@$200/kW. If participating load exceeds 5MW, then $200/kW.
Vendor Fees, Systems & Technology Total*	**TBD**		
Software Provider, Price Provider		Ongoing	VCE does not have this cost information, but the budget line items are integral to pilot success. VCE expects to add detail in reply comments.
Proposed VCE Program Administration Budget	**$ 1,350,000.00**		
Program Management			
Program Manager	$ 300,000.00	Ongoing	50% FTE for 4 years
Program Support	$ 250,000.00	Ongoing	50% FTE for 4 years
Legal, Regulatory and Contracting	$ 50,000.00	One-time	
VCE support for other LSEs	$ 20,000.00	Ongoing	5% FTE for 4 years; unless engaged to provide additional services to other LSEs
Marketing, Education and Outreach			
Customer outreach and engagement, recruitment	$ 20,000.00	Ongoing	5% FTE for 4 years
Marketing and advertising collateral	$ 10,000.00	One-time	Print and digital materials
Website development and ongoing support	$ 10,000.00	Ongoing	
Billing Operations			
Payments to customers for Annual Settlement (customer savings on dynamic tariff)	$ 605,000.00	Ongoing	Cost recovery for the generation portion of customer savings
Shadow bill development, testing, implementation and support	n/a	n/a	Already done as a part of original AGFIT Pilot
Customer Care			
Customer support	$ 80,000.00	Ongoing	25% FTE for 4 years
Please note that costs reflect VCE's estimates, do not reflect costs for PG&E or third-party vendor fees, systems and technology; and would likely be higher for other LSEs. Budget numbers are based on a 5MW target and costs could increase if that target is reached/exceeded.			

Table 2
Estimated Costs for Expanded Pilot #2

Cost Category Pilot #2	Draft Budget	Ongoing or One-time?	Notes
Integration & Automation Incentives	**$ 1,000,000.00**		
Incentives for automation hardware and software given to customers		Ongoing	Assuming 2.5MW@$400/kW. If participating load exceeds 2.5MW, then $400/kW.
Vendor Fees, Systems & Technology Total	**TBD**		
Software Provider, Price Provider		Ongoing	VCE does not have this cost information, but the budget line items are integral to pilot success. VCE expects to add detail in reply comments.
Proposed VCE Program Administration Budget	**$ 1,790,000.00**		
Program Management			
Program Manager	$ 450,000.00	Ongoing	75% FTE for 4 years
Program Support	$ 250,000.00	Ongoing	50% FTE for 4 years
Legal, Regulatory and Contracting	$ 125,000.00	One-time	
VCE support for other LSEs	$ 20,000.00	Ongoing	5% FTE for 4 years; unless engaged to provide additional services to other LSEs
Marketing, Education and Outreach			
Customer outreach and engagement, recruitment	$ 100,000.00	Ongoing	25% FTE for 4 years
Marketing and advertising collateral	$ 25,000.00	One-time	Print and digital materials
Website development and ongoing support	$ 15,000.00	Ongoing	
Billing Operations			
Payments to customers for Annual Settlement (customer savings on dynamic tariff)	$ 300,000.00		Cost recovery for the generation portion of customer savings
Shadow bill development, testing, implementation and support	$ 25,000.00	One-time	To adapt AgFIT Shadow Bill to other customer classes
Customer Care			
Customer support	$ 500,000.00	Ongoing	1 FTE for 4 years
Please note that costs reflect VCE's estimates, do not reflect costs for PG&E or third-party vendor fees, systems and technology; and would likely be higher for other LSEs. Budget numbers are based on a 2.5MW target and costs could increase if that target is reached/exceeded.			

<u>**Attachment A**</u>

Potential Future Non-Ratepayer Funding Sources
for Pilot Expansion #1 and Pilot Expansion #2

1. **Clean Energy Reliability Investment Plan ("CERIP")**

CERIP was established by Section 12 of SB 846 (Dodd, 2012) ("SB 846") and is to be developed by the California Energy Commission ("CEC") in consultation with the Commission and the Air Resources Board to support <u>demand response</u>, <u>assist ratepayers</u>, <u>increase energy reliability</u> and accelerate the deployment of clean energy resources. CERIP must support investments that take into account <u>near and mid-term reliability</u>, zero-carbon resources and greenhouse gas emissions reductions targets, in line with the loading order, including investments to "<u>reduce demand during the net-peak load</u>."[30] SB 846 requires that $100,000,000 in General Fund funding be appropriated in fiscal year ("FY") 23-24, $400,000,000 in FY2024-25 and the remaining $500,000,000 in FY25-26.

Governor Newsom's budget change proposals requested, within a category of $33,000,000 of funding for near-term reliability investments, "Strategic investments in the agricultural and water sectors that reduce both peak electricity consumption and water use"[31] and called out the agriculture and water industries as part of the Demand Side Grid Support Program or a new program with a target of $20,000,000 for FY23-24 and $30,000,000 in FY24-25. The Legislature did not make any appropriations for the FY23-24 budget that clearly would include AgFIT pilot expansion, but VCE notes that CEC's Final Commission Report for CERIP includes within category "Augmenting for Extreme Events" that clearly describes the AgFIT model:

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[30] SB 846, Section 12.

[31] *See* State of California Budget Change Proposal Fiscal Year 2023-24 (January 10, 2023) at 12, available at: https://esd.dof.ca.gov/Documents/bcp/2324/FY2324_ORG3360_BCP6739.pdf; State of California Budget Change Proposal Fiscal Year 2023-24 (May 12, 2023), available at: https://esd.dof.ca.gov/Documents/bcp/2324/FY2324_ORG3360_BCP7076.pdf.

> incentive programs that take advantage of untapped load-shifting opportunities like those that water agencies <u>and the agriculture industry</u> could provide. Both can <u>shift pumping loads</u> or support critical pumping with energy storage during the net peak, reducing stress on the grid during emergencies. To enable this, they may require additional equipment such as <u>advanced controls</u>, storage tanks, and energy storage. Funding could be used to support development of new programs that support higher levels of demand flexibility during the net peak.[32]

CEC budgeted $50,000,000 in this category for FY24-25 and another $50,000,000 in FY25-26.[33]

There is still an opportunity for the CERIP funding to be appropriated for AgFIT expansion as part of the 2024 budget, which would land with the CEC July 1, 2024. That said, it is VCE's understanding that funding would have to go through an implementation process and thus would not be available until fall of 2024 at the very earliest.

2. Distributed Electricity Backup Assets Program ("DEBA").

VCE submitted comments on the CEC's Distributed Electricity Backup Assets Program draft program guidelines process on August 31, 2023. Although the solicitation is focused on bulk grid assets and distributed resources, VCE encouraged the CEC to also consider including demand shift/dynamic pricing technologies and implementation as eligible projects under the DEBA program guidelines (and in other similar future funding opportunities). VCE believes that well-designed and executed market-based dynamic price signaling works in tandem with and helps optimize the value of most bulk grid assets and distributed resources. A co-benefit is that their inclusion also helps efficiently integrate customers into the solution set, leading to more comprehensive, durable solutions when combined with many of the critical asset classes already identified in the DEBA program. The initial DEBA program funding applications are anticipated to be due in December 2023 with projects available for Summer 2024/25.

[32] California Energy Commission, *Clean Energy Reliability Investment Plan Final Commission Report*, Docket No. 21-ESR-01 (March 2, 2023) at 12-13 (emphasis added).
[33] *Id*. at 17.

3. **Climate Resiliency Bonds**.

The California state Senate and Assembly proposed climate resilience bonds, SB 867 (Allen) and AB 1567 (Garcia), respectively. Both bond measures included a chapter on clean energy investments that totaled $2,000,000,000. Neither measure was approved by the Legislature during the 2023 legislative session. If a new climate resilience bond was approved by the Legislature and signed into law, it would be placed on the November 2024 election ballot for voter approval. Such bond measure could be drafted to include funding for the expansion of AgFIT. If approved by a majority of California voters, bond funding could be allocated as part of the FY25-26 budget.

4. **Cap and Trade Auction Revenue**.

Another option would be for the Legislature to steer AB 32 cap and trade auction revenue to AgFIT expansion as part of the FY24-25 budget process. The argument would be that shifting load out of the peak reduces reliance on fossil resources that have to be activated during the peak, thus the shifting of load under AgFIT is a GHG reduction program worthy of cap-and-trade funds. As this strategy contemplates an allocation through the state budget process, the earliest funding could be available is July 1, 2024, when the fiscal year begins. In previous years, negotiations to determine cap-and-trade auction revenue allocations have gone through the end of the legislative session; under such a scenario, funding would become available in September 2024 at the earliest.