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ATTACHMENT A
Staff Proposal on Existing
Dynamic Rate Pilot Expansion

Attachment:
**Staff Proposal on Existing Dynamic Rate Pilot Expansion
in Demand Flexibility Rulemaking (R.22-07-005)**

1 Proposal Summary

Energy Division (ED) Staff proposes that the Commission should direct the IOUs to expand certain existing dynamic rate pilots, as described further in the Proposal Details section below.

2 Background

In Decision (D.) 21-12-015, the Commission authorized two dynamic rate pilots to enhance electric system reliability under extreme weather in the summers of 2022 and 2023:

We adopt two pilots that test how dynamic rates can cause customers to shift energy usage to off peak times, which can enhance system reliability in times of emergency. The first pilot, proposed by Valley Clean Energy (VCE), focuses on shifting agricultural water pumping to off peak times for reliability purposes through the use of dynamic rates and incentives. The second pilot, supported by SCE, uses TeMix's technology to facilitate the use of dynamic rates as an incentive to shift load for customers using electric vehicles, behind the meter energy storage, and similar flexible technologies.¹

The need for additional resources to enhance summer reliability remains urgent. In D.23-06-029, a recent Resource Adequacy (RA) decision, the Commission affirmed the need for additional resources that could provide near-term summer reliability grid benefits and highlighted the constrained availability in RA supply and persistent delays in the development of RA projects.²

Question 6 of the Scoping memo³, Phase 1, Track B of the Demand Flexibility Rulemaking, asked parties the following:

"Should the Commission expand any of the existing dynamic rate pilots as a near-term solution that will benefit system reliability?"

Parties were invited to comment on this question in their opening comments to the scoping memo and they were asked to identify which pilots should be expanded, and why.

¹ D.21-12-015 at 85.

² D.23-06-029, FoF 4 at 130.

³ See Scoping Memo and Ruling in R.22-07-005, issued on November 2, 2022.

Overall, expanding the existing pilots received strong support from numerous parties.⁴ However, certain parties also expressed some reservations. The Public Advocates Office (Cal Advocates) echoed San Diego Gas & Electric (SDG&E) and Southern California Edison (SCE) opposition to the expansion of the pilots based on the uncertainty of some aspects such as the lack of data on the impact on reliability and customer understanding.⁵ Likewise, California Large Energy Consumers Association (CLECA) and other parties also opposed the expansion of the pilots, arguing that it is premature due to the lack of sufficient information on their performance.⁶

As contemplated in the scoping memo, the primary motivation for pursuing pilot expansion of existing dynamic rate pilots is enhancing summer reliability. Staff suggests the expansion of the dynamic rate pilots that were authorized by D.21-12-015. Staff's rationale and proposal for expanding the dynamic rate pilots is described in detail in the sections below. Staff suggests that the experience with and initial performance data from the existing dynamic rate pilots discussed in this proposal show the promise of these pilots, if expanded, to provide high levels of system benefits for summer reliability, and therefore present a sufficient rationale for expanding these pilots.

Furthermore, staff suggests that there are additional benefits in expanding the pilots discussed in this proposal, including the following:

1. Increasing customer and third party understanding of the operational needs and benefits of load management under dynamic rates.
2. 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 timelines to offer widespread hourly, marginal-cost-based dynamic rates consistent with CEC's Load Management Standards.
3. Providing an opportunity to explore new flexible demand use cases enabled/enhanced by dynamic rates, such as thermal storage, process heat decarbonization, etc.
4. Supporting the expedited achievement of the ambitious demand flexibility statewide goals recently established in CEC's SB 846 report, which sets a statewide target of 7000 MW by 2030, including 3000 MW of load shift to be achieved via dynamic rates statewide.

⁴ The California Community Choice Association (CalCCA), Enchanted Rock, Microgrid Resources Coalition (MRC), Polaris, 350 Bay Area and Small Business Utility Advocates (SBUA) encouraged the Commission to expand the Valley Clean Energy (VCE) agricultural pumping dynamic rate pilot ("AgFIT") to support near term reliability issues. Some parties such as Clean Coalition, MRC, TeMix and 350 Bay Area supported expanding Southern California Edison Company's (SCE's) dynamic rate pilot authorized in D.21-12-015.

⁵ See Reply Comments of The Public Advocates on the Scoping Memo and Ruling of Phase 1 of Advancing Demand Flexibility Through Electric Rates, January 4, 2023 at 7.

⁶ See Joint Reply Comments of the California Farm Bureau Federation, California Large Energy Consumers Association, California Manufacturers & Technology Association, Energy Producers and Users Coalition, Energy Users Forum, and Federal Executive Agencies on the Scoping Memo, January 4, 2023 at 12-13.

3 Proposal Details

ED staff proposes pilot expansions (Expanded Pilots) of the dynamic rate pilots that were authorized by D.21-12-015 as described below. ED Staff does not propose any modifications to the rate design or billing for the Expanded Pilots.

3.1 Expanded Pilot #1 – Expansion of the VCE/PG&E “AgFIT” Pilot

The Agricultural Pumping Dynamic Rate Pilot, implemented by Valley Clean Energy (VCE) in coordination with Pacific Gas and Electric Company (PG&E), was approved in D.21-12-015 as a near term solution for summer reliability issues while piloting dynamic rates. The Commission authorized VCE to enroll agricultural pumping customers into an hourly dynamic rate based on Staff’s California Flexible Unified Signal for Energy (CalFUSE) framework.⁷ The pilot was authorized for three years (2022-2024) and was launched in May 2022.⁸ The Commission authorized a budget of \$3.94 million for pilot administration, implementation, and automation incentives for customer irrigation pump loads as described in Table 1 below.

Table 1: Budget breakdown of the VCE/PG&E AgFIT pilot.⁹

Expense Type	Amount (\$)
Integration and automation* of pumping loads with the pilot price signal	\$1,000,000
Vendor fees, Systems & Technology	\$1,500,000
PG&E Program Administration, including Billing, and Evaluation	\$750,000
VCE Program Administration, including program management, marketing, education and outreach, billing and customer care	\$690,000

The pilot partners are VCE and PG&E, Polaris (pumping automation service provider), and TeMix (transactive pricing system provider). The pilots’ dynamic transactive rate design includes both a dynamic generation price component as well as a dynamic distribution price component.¹⁰ The pilot has shown initial success in shifting load during ramp and peak hours.¹¹ The preliminary assessment of the first year of customer load

⁷ D.21-12-015 at 89.

⁸ VCE AL 11-E at 1.

⁹ D.22-06-005 at 6.

¹⁰ VCE AL 11-E at 5 and PG&E AL 6495-E-A at 1-3.

¹¹ Christensen Associates Preliminary Assessment of VCE Agricultural Pumping Dynamic Rate Pilot, Dan Hansen and Mike Clark, presented at D.22-07-005 Track B Working Group 1 meeting on May 26, 2023, at 7. This document is attached to the ALJ ruling through which this Staff Proposal was issued.

shift to dynamic prices from the pilot was presented by the independent evaluators for the pilot to Working Group 1 of Track B of the Demand Flexibility Rulemaking on May 26, 2023. 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.

Dynamic pricing facilitates a load response outside of TOU peak period.

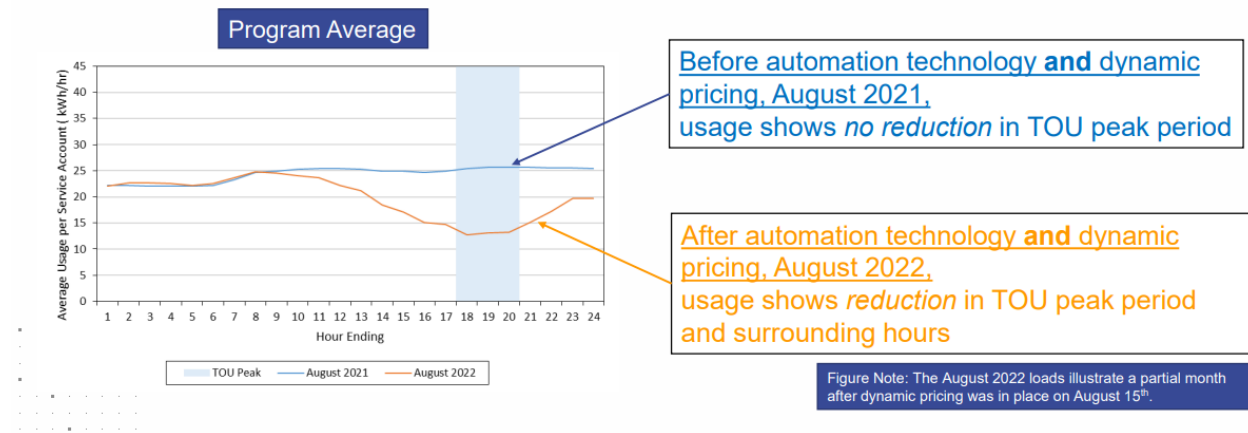


Figure 1: Initial results for pilot participants from August 2022 from the preliminary evaluation of AgFIT.

Staff proposes that this pilot be expanded and modified (Expanded Pilot #1), as described below.

1. Extend the pilot duration an additional three years, starting in June 2024 to December 2027.

The extension of this pilot program from June 2024 to December 2027 is both timely and strategic. Originally authorized for a three-year duration (2022-2024), the approaching end of the initial pilot duration in May 2024 necessitates an extension, ensuring the current pilot participants continue contributing to load flexibility. This extension aligns seamlessly with the California Energy Commission's (CEC) updated Load Management Standards (LMS), requiring major Community Choice Aggregators (CCAs) and Investor-Owned Utilities (IOUs) to offer an optional dynamic rate to all customers by 2027. As the pilot partners have already built and refined the systems and processes necessary to facilitate the pilot, Staff suggests that it is in the interest of all ratepayers for this pilot to continue operation until a more permanent dynamic rate option is available.

Participants in the established AgFIT pilot have demonstrated a promising ability in effectively managing flexible agricultural loads in response to dynamic pricing. The extension of the pilot will not only help provide near-term summer reliability benefits before 2027 but also further promote customer familiarity with dynamic rates. Word of mouth marketing from the initial pilot participants may encourage further pilot enrollment, especially if the pilot is not set to end until 2027.

Furthermore, the pilot rate incorporates both a dynamic generation component and a dynamic distribution component. This allows the pilot to continue assisting both PG&E and the CCAs in PG&E's service territory in gaining the crucial

institutional knowledge helpful to effectively offer rates compliant with CEC LMS by the 2027 deadline.

2. Remove the enrollment cap of 5 MW of peak load under management for VCE and allow other VCE agricultural end-uses to participate in the pilot.

Currently, the pilot enrollment is limited to VCE agricultural pumping customers, with a maximum cap of 5 MW of peak load under management. VCE's agricultural sector constitutes approximately 16% of its peak demand. As a result, even if the enrollment cap is lifted and other VCE agricultural end-use customers are allowed to participate, Staff suggests that the total enrolled load will still only represent a modest percentage of VCE's total peak demand.

Further, extending participation to other agricultural end-uses would provide additional opportunities for existing VCE pilot participants. These existing participants have already gained valuable experience in scheduling their pumping load in response to week-ahead dynamic prices. Staff suggests that existing customers will be able to use the pilot rate and price portal to schedule other agricultural loads as well.

Lastly, by allowing other agricultural end-uses (in addition to irrigation pumping), other VCE customers who have been exposed to AgFIT marketing, education, and outreach (ME&O) would be eligible to choose to participate and schedule their non-pumping agricultural end-uses using the same set of dynamic prices and pilot infrastructure, providing further reliability benefits for all ratepayers without needing significant additional ratepayer funds.

3. Allow bundled and unbundled agricultural customers in PG&E's service territory (beyond VCE) to participate, starting in June 2024.

Staff suggests that other CCAs with agricultural customers represent a promising segment that can leverage the lessons learned, information technology (IT) infrastructure, and billing and price generation processes from the existing AgFIT pilot to provide near-term benefits to summer reliability. As the pilot technical partners (Polaris and TeMix) and PG&E have already set up data transfer agreements, bill verification processes, and communications protocols in order to implement the current AgFIT pilot, Staff anticipates that expanding the pilot to bundled customers and other CCAs could be done expeditiously and without significant additional expense.

4. Expand the pilot budget by \$2.25 million dollars for Vendor fees, Systems & Technology and Program Administration (including Billing and Evaluation).¹²

The AgFIT pilot was authorized with a budget of \$1,500,000 for Vendor fees, Systems and Technology and \$750,000 for Program Administration, including Billing and Evaluation. As this funding amount was based on the initial pilot duration of 3 years (2022-2024), staff proposes an additional budget to fund the

¹² See D. 21-12-015, Attachment 1 at 9-10 for discussion regarding funding levels for the dynamic rate pilots authorized by the CPUC as part of the Summer Reliability Rulemaking (R.21-11-003).

implementation costs associated with the expanded pilot over an additional 3 years.

5. Billing, Evaluation and Customer Eligibility.

See the “Program Requirements for the Expanded Pilots” section below for Staff’s proposed requirements for billing, evaluation and customer eligibility for the expanded pilot.

3.2 Expanded Pilot #2 – Expansion of VCE/PG&E “AgFIT” Pilot to Additional Rate Classes

Staff proposes that the Commission authorize an expanded pilot (Expanded Pilot #2) based on the AgFIT pilot as follows:

1. Allow participation of bundled and unbundled customers on the B-19, B-20 and E-ELEC rates into a dynamic rate pilot through an expansion of the AgFIT pilot.

Staff recommends expanding the AgFIT pilot into a dynamic rate pilot that enables the participation of bundled and unbundled medium and large commercial customers on the B-19 (maximum demand of 500-999 kW) and B-20 (maximum demand greater than 1000 kW) rates, as well as bundled and unbundled residential customers on the E-ELEC rate. This expansion is driven by the desire to include certain customer classes that have the potential to provide significant flexible load responses to dynamic prices. The AgFIT pilot design has already demonstrated promise with agricultural customers. Given that the pilot partners have already built and refined the necessary systems and processes for the pilot, Staff believes it is in the interest of all ratepayers to expand this pilot to the specified rate classes until a more permanent dynamic rate option compliant with CEC LMS is available for all customers.

The AgFIT pilot’s design encompasses both dynamic generation and distribution prices, creating a strong load-shift price signal for participants. This effectively incentivizes load flexibility during periods of peak congestion and enhances summer reliability. Moreover, the inclusion of both generation and distribution rate components supports PG&E and CCAs in PG&E’s service territory to gain crucial institutional knowledge, facilitating the effective offering of rates compliant with CEC LMS by the 2027 deadline.

Customer protection elements within the AgFIT pilot, such as shadow billing (see description in “Guidelines and Program Requirements for the Expanded Pilots” below) and the pilot’s subscription component (Figure 2), enhances participants’ ability to provide load flexibility while mitigating the downside risk associated with dynamic prices. For commercial customers, the subscription component eliminates cross-incentives created by non-coincident demand charges by moving all demand charges into the static subscription component of the customer’s bill. For residential customers, subscriptions offer a crucial customer protection element by providing a hedge, allowing the majority of the residential customer’s usage to be billed at an Otherwise Applicable Tariff (OAT).

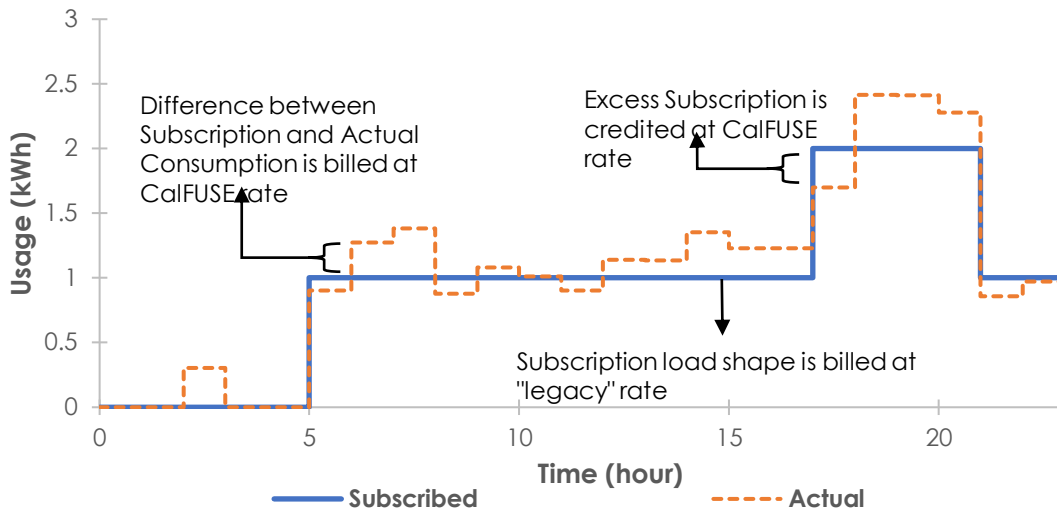


Figure 2: Example of a subscription in a “2-part tariff” as described in the 2022 Energy Division White Paper and Staff Proposal for CalFUSE. The customer’s subscription load shape is based on the customer’s historic hourly usage and is billed at the customer’s legacy rate (inclusive of all demand and customer charges). All hourly usage that deviates from the customer’s subscribed load shape is billed at the dynamic volumetric rate. The customer’s total bill is the sum of both the subscription and the dynamic parts of the tariff.¹³

Furthermore, the transactive element of AgFIT has proven instrumental in fostering customer acceptance and adoption of the pilot rate. Customers can pre-purchase their predicted usage based on week-ahead forecasts of the price, empowering commercial customers, who typically plan their operations in advance, to achieve a high degree of billing certainty regarding the dynamic price impacts on an actionable time-scale.

2. Authorize the expanded pilot to start in June 2024, with a duration of three years.

Authorizing Expanded Pilot #2 to start in June 2024, with a duration of three years will allow sufficient time for the newly eligible customers to enroll and participate in the pilot. This timeline aligns seamlessly with the California Energy Commission's (CEC) updated Load Management Standards (LMS), requiring major Community Choice Aggregators (CCAs) and Investor-Owned Utilities (IOUs) to offer an optional dynamic rate to all customers by 2027.

3. Authorize a budget of \$750,000 for program administration, including billing, evaluation, and ME&O.

¹³ Energy Division White Paper and Staff Proposal: “Advanced Strategies for Demand Flexibility Management and Customer DER Compensation”, (2022) at 66-72. Available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-response/demand-response-workshops/advanced-der--demand-flexibility-management/ed-white-paper--advanced-strategies-for-demand-flexibility-management.pdf>

The AgFIT pilot was authorized with a budget of \$750,000 for PG&E program administration. This funding amount was based on a pilot duration of 3 years. Staff proposes the same budget to fund the program administration costs, billing, evaluation, and ME&O for the customer classes specified for Expanded Pilot #2. Staff suggests 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.

4. Billing, Evaluation and Customer Eligibility.

See the “Guidelines and Program Requirements for the Expanded Pilots” section below for Staff's proposed requirements for billing, evaluation and customer eligibility for the expanded pilot.

3.3 Expanded Pilot #3 – Expansion of SCE’s Dynamic Rate Pilot

In D.21-12-015, the Commission authorized SCE to conduct a dynamic rate pilot for the purpose of studying how price responsive load flexibility can enhance system reliability during extreme summer weather conditions.¹⁴ The pilot was authorized for 3 years (2022-2024) with a start date of May 1, 2022.¹⁵ SCE was granted a pilot budget of \$2.5 million, and was authorized to use TeMix's transactive pricing platform for implementing the pilot.¹⁶ The pilot started enrolling customers on May 1, 2022, and pilot enrollment will close on May 1, 2024.¹⁷

The pilot is open to SCE residential, commercial, and industrial customers, and has no technology restrictions on enrollment.¹⁸ Participants can utilize any flexible load, including behind-the-meter (BTM) storage and Electric Vehicle Supply Equipment (EVSE) with V1G or V2G capabilities. The pilot's dynamic transactive rate design includes both a dynamic generation price component as well as a dynamic distribution price component.¹⁹

Staff proposes that this pilot be expanded (Expanded Pilot #3) as described below.

1. Extend the duration of the pilot an additional 3 years, starting June 2024.

The extension of our pilot program from June 2024 to December 2027 is both timely and strategic. Originally authorized for a three-year duration (2022-2024), the approaching end of the initial pilot duration necessitates an extension, ensuring the current pilot participants continue contributing to load flexibility in response to a dynamic rate. This extension aligns seamlessly with the CEC's updated LMS, requiring major CCAs and IOUs to offer an optional dynamic rate to all customers by 2027. As the pilot partners (SCE and TeMix) have already built and refined the systems and processes necessary to facilitate the pilot, Staff suggests that it is in the interest of all ratepayers for this pilot to continue

¹⁴ D.21-12-015 OP 59, 60, 61, and 62.

¹⁵ SCE AL 4684-E at 9.

¹⁶ *Id.* at 2.

¹⁷ *Id.* at 9.

¹⁸ D.21-12-015 at 98.

¹⁹ SCE AL 4684-E at 6.

operation until a more permanent dynamic rate option is available thereby avoiding pilot participant drop off.

ED staff has been receiving biweekly project updates from SCE. SCE initiated the enrollment process for participants into its dynamic rate pilot on May 1, 2022. While an initial group of customers has started receiving and responding to the dynamic price, a significant number of eligible participants are still in the validation pipeline queue. If the pilot were to end in 2024, many eligible participants, including those eligible unbundled participants who have not yet had the opportunity to complete the process, would be at risk of having a very limited opportunity to participate in the pilot program.

The extension of the pilot will not only help provide near-term reliability benefits before 2027 but also further promote customer familiarity with dynamic rates. Word of mouth marketing from the initial pilot participants may encourage further pilot enrollment, especially if the pilot is not set to end until 2027.

Furthermore, the pilot rate incorporates both a dynamic generation component and a dynamic distribution component. This allows the pilot to continue assisting both SCE and CCAs in SCE's territory in gaining the crucial institutional knowledge helpful to effectively offer rates compliant with CEC LMS by the 2027 deadline.

2. Expand pilot eligibility to include customers participating in SCE's Charge Ready Program

Background: D.16-01-023 authorized SCE's Charge Ready incentive pilot program and required the creation of a DR program for participation by SCE's Charge Ready customers. D.20-08-045 authorized the expansion of SCE's Charge Ready program with the requirement to establish a DR program (Ordering Paragraph 18) for Charge Ready customers.

Staff recommends that: (i) new customers participating in SCE's Charge Ready program, after the Expanded Pilot #2 is authorized, be given the option to participate in Expanded Pilot #2, and (ii) existing Charge Ready customers of SCE be given the option to participate in Expanded Pilot #2.

3. Expand the pilot budget by \$1.25 million dollars for Vendor fees, Systems & Technology, and Program Administration (including Billing and Evaluation)²⁰

In D.21-12-015, the VCE/PG&E AgFIT pilot was authorized with a budget of \$1,500,000 for Vendor fees, Systems and Technology and \$750,000 for Program Administration, including Billing and Evaluation for a initial pilot duration of 3 years. The SCE Dynamic Rate Pilot was authorized with a budget of \$2.5 million for an initial pilot duration of 3 years.

For the expanded SCE pilot, staff proposes an additional budget of up to \$1.25 million to fund the implementation costs associated with administering the

²⁰ See D. 21-12-015, Attachment 1 at 9-10 for discussion regarding funding levels for the dynamic rate pilots authorized by the CPUC as part of the Summer Reliability Rulemaking (R.21-11-003).

expanded SCE pilot for 3 years (\$750,000) and vendor fees, systems and technology costs (\$500,000). Because staff proposes limited changes to the SCE pilot, the vendor fees, systems and technology costs for the expanded SCE pilot should be lower than the original pilot.

4. Billing, Evaluation and Customer Eligibility.

See the "Guidelines and Program Requirements for the Expanded Pilots" section below for Staff's proposed requirements for billing, evaluation and customer eligibility for the expanded pilot.

4 Guidelines and Program Requirements for the Expanded Pilots

4.1 Rate Design

The Expanded Pilots shall utilize the same rate design as the dynamic rate pilots authorized in D.21-12-015 in Attachment 1. The rate design is replicated with minor clarification edits as indicated below:

"The pilot rate design will incorporate the ideas in the 6-step Distributed Energy Resource (DER) & Demand Flexibility roadmap described by Energy Division Staff at the May 25, 2021, workshop on Advance DER and Demand Flexibility Management.

For the generation components of the service by **the LSE**, (1) energy costs will be based on the CAISO wholesale market prices, and (2) generation capacity and flexible capacity costs will be recovered on an hourly basis using the scarcity pricing concept: more fixed costs are recovered when system utilization is higher relative to the system capacity limit.

For the delivery component of the service by **the UDC**, (1) line losses will be recovered through volumetric rates, which could be time dependent, and (2) distribution capacity costs will also be recovered on an hourly basis using the scarcity pricing concept in lieu of monthly or annual demand charges.

The capacity cost recovery functions (hourly price vs. system utilization) for all components (generation capacity, flexible capacity, and distribution capacity) will be calibrated to fully recover annual **LSE** generation costs and **UDC** delivery costs. Other costs, including billing, metering, access, public purpose, and transmission costs may either be recovered through the existing rate structures or through a monthly subscription charge."

4.2 Shadow Billing

The Expanded Pilots shall utilize the same billing approach as the dynamic rate pilots authorized in D.21-12-015. As described in Attachment 1, to avoid the need to integrate the pilot rate tariff with IOU billing systems, a "shadow bill" approach should be used to provide participants compensation for any load shift by the customer's equipment in

response to the pilot rate.²¹ Participants will continue to pay their current bill under the otherwise applicable tariff and will also receive a shadow bill, which they will not pay. The shadow bill will illustrate a customer's potential savings under the dynamic pilot rates. Participants will receive payments from their Load Serving Entity (LSE) and their Utility Distribution Company (UDC) for their pilot rate savings on either a monthly or annual basis. The customer's LSE and UDC will credit any savings realized by the customer with respect to the generation and distribution component of the pilot rate in the customers' shadow bills respectively.

4.3 Evaluation of Expanded Pilots

PG&E and SCE shall each conduct mid-term and final evaluations of the expanded pilots. The mid-term evaluations shall be released no later than December 31, 2025, and a final evaluation shall be released no later than March 1, 2028. The evaluations should include the same elements as required for the existing pilots:²²

1. The response of customer loads to prices, to evaluate the efficacy of the dynamic pilot rate to shift customer exports into peak hours.
2. The monthly bill impacts of the pilot dynamic rate in comparison to a customers' otherwise applicable tariff.
3. An evaluation of the recovery of generation and resource adequacy costs for customers on the pilot tariff. This evaluation should assess the impact of any under collection of generation and resource adequacy revenues against the impact of the shifted participant loads on marginal generation and resource adequacy costs, and on the avoided cost value, including using the Commissions' Avoided Cost Calculator, where appropriate.
4. An evaluation of the recovery of delivery costs for customers on the pilot tariff. This evaluation should assess the impact of any under-collection of delivery revenues against the impact of the shifted participant loads on marginal delivery costs, and on the avoided cost value, including using the Commissions' Avoided Cost Calculator, where appropriate.

4.4 Customer Eligibility

4.4.1 Excluded Programs

Customers participating in any of the following programs or pilots are excluded from participating simultaneously in the Expanded Pilots:

1. Supply-side DR Programs: IOU DR programs and DR contracts counted for Resource Adequacy (RA) (except Base Interruptible Program (BIP) and Agricultural Pumping-Interruptible (AP-I)), DRAM, and CCA contracted DR resources counted for RA.

²¹ Attachment 1 of D.21-12-015 at 8 and at 11.

²² Attachment 1 of D.21-12-015 at 9 and at 11-12.

2. Emergency Load Reduction Program (ELRP) Pilot
3. Flex Market Pilot
4. SDG&E's Power Your Drive (PYD) Pilot
5. PG&E's DAHRTP Pilot
6. Critical peak pricing tariffs (IOU or CCA)
7. Event-based load-modifying programs or pilots operated by IOUs or CCAs

The exclusions listed above are intended to avoid: (i) Challenges in attribution of the net load reduction or shift during overlapping signals, and (ii) Potential double-counting of the net load reduction or shift between the excluded program and the Expanded Pilots.

4.4.2 Included Programs

Customers not participating in any of the above programs are eligible to participate in the Expanded Pilots, including those customers participating in the following (subject to the above exclusions):

1. TOU, Electrification Rates, PG&E's Smart Rate tariffs
2. NEM and NBT tariffs
3. NEM/NBT Customers with Electric Vehicles
4. BIP and AP-I Programs (customers enrolled in these programs are still required to meet their obligations under these programs while participating in the Expanded Pilots).

4.4.3 Behind-the-Meter (BTM) Storage Customer Eligibility

BTM storage systems, within the power levels established by a site's Rule 21 interconnection agreement, are eligible to participate in the Expanded Pilots. A participant's BTM storage system is permitted to charge from the grid and discharge or export energy back to the grid consistent with the site's Rule 21 interconnection agreement.

4.4.4 Electric Vehicle Supply Equipment (EVSE) Customer Eligibility

D.21-12-015 provided clear direction and provisions to allow the ELRP pilot to accommodate bidirectional EVSEs. Staff propose to apply the EVSE customer eligibility requirements (with one modification) below to the Expanded Pilots:

In recognition of a nascent market, any direct current (DC) vehicle-to-grid (V2G) electric vehicle supply equipment (EVSE) that has UL 1741 certification - but not UL 1741 SA certification, any subsequent UL 1741 supplement certification required in Rule 21, or Smart Inverter Working Group-recommended smart inverter functions - may interconnect initially for the purpose of participating in the Expanded Pilots, subject to all other Rule 21 interconnection requirements.

IOUs may request the termination of this interconnection pathway via Tier 2 AL after the 2024 season if the market has developed to provide multiple V2G capable EVSEs that meet the full smart inverter certification standards required in Rule 21. Termination of this pathway would not affect previously interconnected

EVSE, and they may continue to operate parallel to the grid as per their Interconnection Agreement.

An EVSE meter, or EVSE sub-meter if the EVSE is taking service through the host site meter, may be used as the basis for settlement under the Expanded Pilot's dynamic rate. The EVSE sub-meter must meet applicable standards established by the Commission when/as adopted.

Only during participation in the Expanded Pilots, the customer (or the customer's authorized third party) is permitted to virtually aggregate separately metered EVSE that have a Rule 21 Interconnection Agreement with other load and generation (if any) at an electrically contiguous host site to allow export from the EVSE to reduce the host site's load and export from such aggregation up to the sum of the net export allowed by any available Rule 21 Interconnection Agreements of the EVSE site and the host site. Two sites are considered electrically contiguous when they have electric service derived from the same utility distribution transformer secondary and there are no devices on the utility distribution system that can interrupt power flow to only one site.

4.4.5 Sub-meter Based Customer Eligibility

D.21-12-015 (Attachment 2, p.15) describes an option for customers to participate in the Emergency Load Reduction Program utilizing sub-meter-based settlements with the utility. Staff proposes for this to apply to the Expanded Pilots.

Similarly, to provide flexibility and encouragement for customers to participate in the Expanded Pilots #2 and #3, a customer may elect to limit their participation in the Expanded Pilots to an onsite BTM storage system or an EVSE, provided:

- (i) The customer (or authorized third-party) designates a suitable sub-meter as the basis for the settlement under the pilot's dynamic rate, where the sub-meter is embedded within the storage/EVSE system and directly measures the energy flows into/out of the system, and
- (ii) The sub-metered system (storage or EVSE) does not respond to another signal in the Excluded Programs listed above.

4.4.6 Customer Enrollment Through Third-Party Service Providers

In order to expand the availability of automation and management services to customers and promote the viability of this critical and nascent part of the industry, IOUs are encouraged to engage third-party service providers to improve customer interaction with the Expanded Pilots through contractual agreements. The Expanded Pilot program budgets as proposed are intended to be inclusive of the costs of such arrangements between IOUs and third parties.

R.22-07-005 ALJ/SW9/jnf

(END OF ATTACHMENT A)