STATE OF CALIFORNIA ——EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298

November 9, 2018 **Agenda ID #17019**

Ratesetting

TO PARTIES OF RECORD IN RULEMAKING 15-03-010:

This is the proposed decision of Administrative Law Judge (ALJ) Darcie Houck and ALJ Cathleen Fogel. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's December 13, 2018 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, ex parte communications are prohibited pursuant to Rule 8.2(c)(4)(B).

/s/ JESSICA T. HECHT for
Anne E. Simon
Chief Administrative Law Judge

AES:avsAttachmentALJ/DH7/CF1/avs **PROPOSED DECISION** **Agenda ID #17019 (REV. 1)**

Ratesetting

12/13/18 Item 28

Decision **PROPOSED DECISION OF ALJ HOUCK AND ALJ FOGEL**
(Mailed 11/9/2018)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Identify Disadvantaged Communities in the San Joaquin Valley and Analyze Economically Feasible Options to Increase Access to Affordable Energy in those Disadvantaged Communities.	Rulemaking15-03-010

DECISION APPROVING SAN JOAQUIN VALLEY DISADVANTAGED COMMUNITIES PILOT PROJECTS

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Appendix A 1

DECISION APPROVING SAN JOAQUIN VALLEY DISADVANTAGED COMMUNITIES PILOT PROJECTS

Summary

This decision considers pilot projects (pilots) in twelve (12) disadvantaged communities (DAC) in the San Joaquin Valley (SJV). These pilots provide for replacement of propane and wood burning appliances with either natural gas (including line extensions) or all electric appliances consistent with Assembly Bill (AB) 2672, codified as Public Utilities (Pub. Util.) Code Section 788.5. We authorize eleven (11) pilots in the communities of Allensworth, Alpaugh, Cantua Creek, Ducor, Fairmead, Lanare, Le Grand, La Vina, Seville, California City, and West Goshen. A twelfth pilot was assessed for the community of Monterey Park Tract (MPT) however this pilot is deferred for further consideration in Phase III of this proceeding.[1]

This decision approves $~~54~~56 million in funding for the eleven approved pilots. Pacific Gas and Electric Company (PG&E) and Southern California Edison (SCE) will each serve as Pilot Administrators for three electrification pilots. A competitive request for proposal (RFP) to select one electrification Pilot Administrator (PA) and Pilot Implementer (PI) (together PA/PI) for ~~three~~five additional electrification pilots will be issued by PG&E and chosen by the California Public Utilities Commission (Commission) Energy Division staff. A budget of $~~48.2~~50.7 million for these ~~nine~~eleven electrification pilots, including California City, is authorized. We ~~also~~ approve Southern California Gas Company (SoCalGas) to administer a natural gas pilot ~~projects in three communities with a budget of $6.1 million.~~ project in California City with a budget of $5.6 million. We also authorize a limited opportunity for SoCalGas to

[1] However, Monterey Park Tract will receive California Solar Initiative Solar Thermal treatment.

affirm locating additional gap funds for gas pilots in Allensworth and Seville, and in that event provide a pathway for those communities to receive gas pilots.

The two primary objectives of the pilots are to provide access to affordable energy by reducing total energy costs for participating households and to collect data for use in Phase III of this proceeding. Approved budgets provide for approximately ~~1,640~~1,891 households to receive appliance retrofits through the pilots and for all pilot community residents to benefit from community outreach and enrollment in existing programs for which they are eligible.

PG&E, SCE and SoCalGas (collectively investor-owned utilities or IOUs) will supplement the budgets approved here by leveraging opportunities within existing Commission programs for demand-side management programs such as the Energy Savings Assistance (ESA) Program, the California Solar Initiative Solar Thermal Program (CSI-Thermal), and the Disadvantaged Communities-Green Tariff (DAC-GT) and Community Solar Green Tariff (CSGT) Program. These leveraged programs and budgets will fund the delivery of weatherization measures, solar technologies, and discount electric rate products to interested pilot households.

In order to ensure efficient use of resources and cost effectiveness, we authorize limited exemptions for certain related Commission program rules. This decision approves a limited exemption to the ESA Program rules on the sequencing of ESA measure installations and accounting requirements. ~~PG&E and SCE are directed to file a pilot specific rate that excludes the "SuperUser" charges for pilot households.~~ We also authorize a limited exemption to the CSGT program rule that requires CSGT solar projects be located within five miles of the participating communities. CSGT projects serving pilots may be located up to 40 miles from the participating SJV pilot communities.

~~The~~We direct IOUs ~~must~~and the third-party PA/PI to work to ensure that participating households experience reduced energy costs. In order to ensure the most reasonable cost saving approaches for both pilot households and ratepayers, and to fully consider options, an Energy Cost Reduction and Bill Protection workshop will be held in early ~~2019 to focus on this issue.~~2019. We adopt requirements for this workshop and advice letters seeking approval of the agreed approach and allocate $500 per participating household for bill protection measures.

A Community Energy Navigator (CEN) program component for each of the eleven pilots ~~and for MPT~~ is approved. The decision approves specific pilot elements on workforce development ~~and workforce~~, training and education, appliance warranties, and bulk purchasing. It directs use of property owner and tenant agreements to address split-incentive challenges. It directs quarterly reporting starting in 2020 on remediation costs and needs in the communities and on pre- and post- pilot implementation bill impacts, and annual reporting on progress of the pilots more generally. The aim of these requirements is ensuring a continuous learning process from the pilots to assist us in Phase III. We cap remediation costs at $5,000 per household.

The decision sets forth and authorizes cost recovery mechanisms for the IOUs. ~~We also~~In addition to funds authorized for the pilot projects, we authorize $750,000 in funds for a pilot process evaluation study and a technical expert to work with Energy Division staff to prepare an Economic Feasibility Framework White Paper. We approve $250,000 for PG&E to continue to assess the feasibility of its proposed MPT pilot.

1. Background

This proceeding implements Assembly Bill (AB) 2672, codified as Public Utilities (Pub. Util.) Code Section 783.5.[2] Legislative analysis of the bill found that, where natural gas is unavailable, wood stove, propane or electricity is used for space and water heating. This analysis also found that "for low income households, the use of natural gas or electricity can decrease utility costs, increase overall financial health, and provide a safer means of heating and cooling space and water."[3]

On March 26, 2015, the Commission issued this Order Instituting Rulemaking (OIR) to meet the requirements of and implement Section 783.5. The Commission first needed to identify SJV DACs that met specific income, geographic, and population requirements. The Legislature directed the Commission to then analyze the economic feasibility of certain energy options for the identified communities. The three categories of energy options specified by statute are:

(a) extending natural gas pipelines;

(b) increasing existing program subsidies to residential customers; and

(c) other alternatives that would increase access to affordable energy.

The Commission adopted the Phase I Decision (D.)17-05-014 in this proceeding on May 11, 2017. The Phase I decision adopted the methodology for identification of communities meeting the statutory definition of a SJV DAC under Section 783.5. D.17-05-014 subsequently approved a list of 178 SJV DACs (SJV DAC list). [4]

[2] All statutory code sections refer to the Pub. Util. Code unless otherwise stated.

[3] August 25, 2014 "Assembly Floor Analysis."

[4] On June 14, 2017, the IOUs and the Leadership Counsel for Justice (Leadership Counsel) filed an "Accountability Report on Additional San Joaquin Valley Counties' Disadvantaged Communities to Consider per D.17-05-014" that provided information on sixteen communities potentially eligible for inclusion on the SJV DAC list.

On June 9, 2017 during a prehearing conference (PHC), the Public Advocates Office (Cal Advocates)[5] offered to provide a framework for moving forward with the data collection track for Phase II- Track B, and Self-Help Enterprises (SHE), the Center for Race Poverty and the Environment (CRPE), and Leadership ~~Council~~Counsel (collectively the Pilot Team) offered to provide a framework for moving forward with potential pilots for Phase II-Track A.[6] Cal Advocates provided a proposed framework for data collection and the Pilot Team provided a proposed framework for moving forward with the pilots. All parties were directed to provide comments on both proposed frameworks.

A second PHC was held in Phase II on September 6, 2017 in Fresno, California. During the second PHC, parties discussed the Pilot Team's recommendation regarding which SJV DACs should host proposed pilots. All parties agreed that for a community to be included for consideration as a potential pilot host, the community would need to trust the process; there would need to be "community buy-in." No party objected to moving forward with assessing the eleven (11) communities identified by the Pilot Team as hosts for pilots. An additional community proposed by SoCalGas, California City, was added to the list of potential host pilot communities. No other party proposed potential pilot host communities for consideration.

[5] The Office of Ratepayer Advocates (ORA) was renamed the Public Advocate's Office of the Public Utilities Commission (Cal Advocates) pursuant to SB 854. This decision therefore uses both ORA and Cal Advocates to reflect the same entity as appropriate.

[6] No party objected to the frameworks being prepared by Cal Advocates and the Pilot Team.

The Phase II Scoping Memo divided this phase of the proceeding into two tracks, A and B.[7] Track A addresses authorization and implementation of pilots that are intended to ~~provide~~explore cleaner and more affordable energy options to propane and wood burning for a select number of SJV DACs. Parties provided comments on a broad range of issues which has led to extensive documentation on the parties' positions concerning process and substance for moving forward with implementation of the pilots. Numerous parties, including Greenlining Institute, Cal Advocates, the Center for Accessible Technology (CforAT), The Utility Reform Network (TURN), ~~Grid~~GRID Alternatives (GRID), the Sierra Club, the City of Fresno, the Pilot Team, PG&E, SoCal Gas, and SCE filed comments and reply comments on an extensive list of questions, preliminary scope, categorization, and need for hearings.

The IOUs and GRID ~~Alternatives~~, Proteus Inc. and Tesla (collectively the Clean Energy Team or CEP Team) each submitted detailed pilot proposals on which parties have commented extensively. On August 3, 2018, the assigned Administrative Law Judge (ALJ) issued *ALJ Ruling Requesting Parties' Response to Ruling Questions, Providing Guidance on Pilot Project Updates, Updating Proceeding Schedule, Entering Documents into the Record, and Providing Additional Guidance to Specific Parties* (August 3, 2018 ALJ Ruling). The Ruling set forth additional questions for party comment and directed the IOUs and the CEP Team to file

[7] Track B of Phase II addressed data gathering needs for evaluation of economically feasible potential energy options for all identified communities. The decision for Phase II Track B-Data Gathering, D.18-08-019 was issued on August 31, 2018. D.18-08-019 also addressed 16 identified communities not included on the SJV DAC list. These communities were identified in the June 14, 2017 Accountability Report as probably meeting the statutory criteria of Section 783.5. *See* Comments of Leadership Counsel for Justice and Accountability on Questions in Attachment 3 to Scoping Memorandum, February 2, 2017, Exhibit A. Nine of the 16 communities were formally added to the SJV DAC list by adoption of D.18-08-019. These nine communities are: Alkali Flats, Earlimart Trico Acres, Five Points, Harwick, Hypericum (Dog Town), Madonna, Monterey Park Tract (MPT), Perry Colony (the Grove), and Ripperdan. (*See* OP 8, D.18-08-019.)

Updated Pilot Project proposals (Updated Proposals). The updated pilot proposals were filed on September 10, 2018.[8] Also on September 10, 2018, the following parties provided responses to the August 3, 2018 ALJ Ruling: PG&E, Cal Advocates; TURN; CforAT; Sierra Club/NRDC; GRID; SoCalGas; and the Greenlining Institute. The following parties provided reply comments to the August 3, 2018 ALJ Ruling on October 1, 2018: the Pilot Team; Cal Advocates; SoCalGas; CforAT; TURN; and SCE. On October 1, 2018, the following parties commented on the IOU and CEP Team Updated Pilot Project Proposals: the Greenlining Institute; Sierra Club/NRDC; Cal Advocates; GRID; PG&E; TURN; and SCE. The Pilot Team commented on the IOU and CEP Team Updated Pilot Project Proposals on October 2, 2018.

On October 1, 2018, SCE filed a redline, corrected, version of its Updated Pilot Project Proposals.[9] On October 2, 2018, GRID filed revisions to its Updated Pilot Project Proposals.[10] On October 3, 2018, SoCalGas filed revisions to its Updated Pilot Project Proposals.[11] On October 8, 2018, PG&E filed an amended version of its Updated Pilot Project Proposals (Revised Proposals).[12]

[8] The CEP Team, "Revised Proposal of GRID Alternatives and Partners as Directed by the Administrative Law Judge's August 3, 2018 Ruling," September 10, 2018; Southern California Edison Company's Pilot Proposal Update and Comments on Questions," September 10, 2018; PG&E, "Pacific Gas and Electric Company's Updated Proposals for Pilot Projects in Designated Disadvantaged Communities in the San Joaquin Valley," and Attachments A – C, September 10, 2018; SoCalGas, "Southern California Gas Company's Revised Pilot Proposals," and Exhibits 1 – 16, September 10, 2018.

[9] SCE, "Attachment A, SCE's Updated Pilot Proposal (Corrections to 9/10/2018 Filing)" in, "Southern California Edison Company's Comments on Updated Pilot Proposals," October 1, 2018.

[10] CEP Team, "Revised and Updated Proposal of GRID Alternatives and Partners as Directed by the Administrative Law Judge's August 3, 2018 Ruling," October 2, 2018. Updated granted via e-mail by ALJ Houck on September 28, 2018.

[11] SoCalGas, "Revised Exhibit 16 of Attachment 4 of Southern California Gas Company's Revised Pilot Proposals," October 3, 2018.

[12] PG&E, "Amended Updated Proposals for Pilot Projects in Designated Disadvantaged Communities in the San Joaquin Valley," October 8, 2018. Updated granted via email by ALJ Fogel on October 5, 2018.

On October 3, 2018 the assigned Commissioner issued an Assigned Commissioner 's Ruling *Proposing Phase II Pilot Projects in Twelve Communities in the San Joaquin Valley and Noticing All-Party Meeting*. The following parties filed comments on October 19, 2018: California Solar & Storage Association (CSSA); TURN; the Pilot Team; Cal Advocates; SoCalGas; PG&E; SCE; CforAT; Greenlining Institute; and, Sierra Club/NRDC. Reply comments were filed on October 25, 2018 by the following parties: TURN; Cal Advocates; the Pilot Team; CUE; SCE; SoCalGas; PG&E; Greenlining Institute; CSSA; SunRun Inc.; and GRID.

An all-party meeting was held in Fresno, California on November 1, 2018 with a public participation hearing (PPH) that immediately followed. Both hearings were accessible by remote video to sites in Modesto and Bakersfield. A second PPH was held in Tulare, California on November 7, 2018. Community Energy Option Assessment Workshops were held in each of the identified proposed host pilot communities.[13]

2. Pilot Objectives and Guiding Principles

Section 783.5(b)(2)(A) directs the Commission to analyze the option of extending natural gas lines, or other alternatives that will provide affordable energy to SJV DACs. The Commission, pursuant to Section 783.5(b)(2)(B), is directed to consider "increasing subsidies" for electricity for residential customers in the communities on the SJV DAC list. Section 783.5(b)(2)(C) also directs the Commission to consider "other alternatives" that would increase access to affordable energy in SJV DAC listed communities.

[13] Community Energy Option Assessment Workshops were held in the following locations on the following dates: Le Grand, May 7, 2018; La Vina, May 8, 2018; Allensworth, May 15, 2018; Seville, May 16, 2018; Lanare, May 17, 2018; Fairmead, May 21, 2018; Cantua Creek, May 22, 2018; California City, May 23, 2018; Alpaugh, June 4, 2018; West Goshen, June 5, 2018; Ducor, June 6, 2018; and MPT, September 17, 2018.

This decision authorizes planning, implementation, and evaluation of pilot interventions in eleven (11) SJV DAC host communities. The decision is guided by the intent and requirements of AB 2672 to find affordable energy alternatives to propane and wood burning for SJV DACs and builds upon the work produced in Phase I of the proceeding. The dual goals of the pilots are to provide cleaner, more affordable energy options to propane and wood burning and gather real time data needed to assess the economic feasibility of extending affordable energy options to all listed SJV DACs. The pilots authorized in this decision are not to be deemed precedential. The pilot objectives are as follows:

- Gather inputs to assess cost-effectiveness and feasibility during Phase III;
- Provide access to affordable energy options in participating pilot host communities;
- Reduce household energy costs for participating pilot host customers;
- Increase health, safety and air quality of participating host pilot communities;
- Test approaches to efficiently implement interventions;
- Assess potential scalability.

In addition, the pilot will test specific questions related to the pilot design.

The following principles have guided our selection of pilot:

- Legislative directive of AB 2672;
- Community-Based Approach – ensuring community support for projects;
- California's climate change (SB 32, SB 100 and SB 350) short-lived climate pollution reduction (B 1383)[14] laws;
- The Governor's Executive Order B-55-18 To Achieve Carbon Neutrality economy-wide, including "requiring

[14] SB 1383 requires the California Air Resources Board to develop a plan to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030.

significant reductions of destructive super pollutants including black carbon and methane;"

- Customer Choice;
- Pilots as a Tool for Data Gathering;
- Leverage Efficiencies While Maximizing Third Party Implementation.

The following are the Pilot Selection Criteria used to finalize pilot approval:

Community Support and Benefits

The pilots include plans for continuous community engagement (including hard-to-reach households) and includes a feedback loop to incorporate lessons-learned and qualitative feedback as pilots develop. The pilots will advance community benefits including improvements to health, safety, reliability and air quality, and include local hire goals and/or a workforce development plan. Community support is a critical factor and will be considered along with the long-term benefits of improvements to health, safety, reliability, air quality, and reduction of greenhouse gas emissions.

Affordability

The pilots include reasonable bill protection measures and ensures bill savings and affordability for participants.

Pilot Replicability, Value, and Reasonableness of Costs

It is important that the questions or assumptions the pilots test are clear, incremental to what is already known and, diversified across pilots. It is equally important that the pilots be appropriately scaled to achieve the pilot objectives. The pilots will produce useful data in an appropriate timeframe. The pilots leverage other Commission programs and non-ratepayer funding sources that

may be available to support pilot implementation, which could be replicated for future projects in other communities on the SJV DAC list.

Pilots as Data Gathering and Learning Tools Not an Ongoing Program

The pilots will allow for data gathering, development of learning tools, and documenting successes and failures. The pilots will provide information to assess the potential for extending offerings to other SJV DACs.

3. Host Pilot Communities

To provide context, this section provides a brief overview of the eleven proposed host pilot communities. These communities are some of the poorest communities in California. As indicated in Table 1, the average household annual income across the communities is $31,214 per year, spanning a low of $20,700 per year in West Goshen and $41,776 per year in Le Grand. Together the communities comprise approximately ~~7,3810~~7,381 households, with about ~~2,762~~2,667 (36%) of these lacking access to natural gas. Approximately eighty-five percent of households across the communities qualify for the California Alternative Rates for Energy program (CARE).[15] Of the other households, an unknown portion qualify for the Family Electric Rate Assistance (FERA) Program.

The 11 communities represent less than 1% (7,381) of the overall population of the 179 SJV DAC communities (892,574), and not quite 10% (~~2,762~~2,667) of the households without gas in the 179 SJV DAC communities (29,591). Although not all ~~2,762~~2,667 households will be receiving treatment, this ensures a sufficiently large sample size in the pilots to learn from the various strategies that will be authorized in these communities.

[15] Weighted average based on PG&E's October 8, 2018 CARE eligibility projections. Unweighted average is approximately seventy-nine percent.

Table 1: Summary of Pilot Communities

Community	Average Annual Income	Percent CARE Eligible[15][16]	Total Households	Unserved Households
Allensworth	$29,091	8868%	116	116106
Alpaugh	$38,750	8668%	225	46
California City	$48,776	90%	5,254	1,110
Cantua Creek	$32,368	7475%	119	106
Ducor	$29,313	96%[16][17]	222	222
Fairmead	$31,773	8560%	401	253
Lanare	$26,023	8579%	150	1517
Le Grand	$41,776	8666%	502	502
La Vina	$23,000	8595%	165	84
Monterey Park Tract (MPT)	$30,000	25%+[17][18]	53	53
Seville	$23,000	8577%	122	100104
West Goshen	$20,700	100%	127	127
Totals			**7,381**	2,7622,667

*Note: MPT is included in this table for informational purposes only.

Renters currently occupy about 37 percent of homes across the host pilot communities and about 25 percent of the homes lacking natural gas. In addition, most (70%) of the dwellings lacking access to natural gas are single family-homes. About 100 mobile homes and 100 multi-family units also lack access to natural gas. More than half of the homes are owner-occupied.

[15] Unless otherwise indicated, the source for these current estimates of percent CARE-eligible households is[16] Final estimates of unserved household updated to reflect the IOUs and the CEP Team's October, "Revised Proposal as Directed by the ALJ's August 3, 2018 Ruling," September 10, 2018 at A6-8 – A6-11, which indicates PG&E as the source of the CEP Team's data.2018 Revised Proposals, and the Pilot Team's November 29, 2018, "Comments on Proposed Decision."

[16][17] SCE, "Updated Pilot Proposal," September 10, 2018. The CEP Team's estimate for both West Goshen and Ducor was 84%).

[17][18] D.18-08-019.

Table 2: Housing Types in Pilot Communities[18][19]

	Owner-occupied	Renter-occupied	Vacant/uninhabitable
Allensworth	56	59	27
Alpaugh	120	106	17
Cantua Creek	48	65	15
Fairmead	205	155	44
Lanare	87	53	7
Le Grand	315	143	45
La Vina	39	24	4
Seville	55	53	7
Total	925	658	166
Percent	52%	37%	9%

4. Summary of Revised Pilot Proposals

PG&E, SCE, SoCalGas, and the CEP Team filed proposed pilots on September 10, 2018. We describe each of the IOUs and the CEP Team's proposed/updated pilots below.

4.1. The Clean Energy Pilot Team

The CEP Team filed proposals to serve up to ten of the twelve pilot communities. As proposed, GRID would lead the solar component, Proteus the energy retrofit component, and Tesla the in-home energy storage component.[19][20]

4.1.1. Overview of Proposal

The CEP Team proposes that residents of participating communities will receive differentiated electrification and energy efficiency subsidies or budgets based on their income and their fuel-switching status. The CEP Team also proposes a comprehensive plan to address tenant protection and landlord engagement, non-electrical remediation needs within the home, and to establish a

[18][19] *See* PG&E's September 10, 2018 updated pilot proposal. Not all pilot communities are listed.

[19][20] The CEP Team, "Revised Proposal as Directed by the ALJ's August 3, 2018 Ruling," September 10, 2018 at 16 – 28.

remediation fund for low-income households to address homes in greatest need of repair.

The CEP Team proposes to offer both solar and energy efficiency retrofit workforce development opportunities, including hands-on installation and classroom elements and estimates it could work with up to 64 trainees from the communities over the course of the pilot. They proposed an on-bill financing (OBF) program, to be made available to all participating households, with zero percent interest financing, repayable over ten years.

Table 3 summarizes the CEP Team budget request.

Table 3: CEP Team Proposed Budget

Community	Total Budget Needed	New Budget Requested	Leveraged Funds (ESA, MIDI)
Allensworth	$3,317,874	$3,062,374	$255,500
Alpaugh	$2,061,991	$1,566,991	$495,000
Seville	$3,403,199	$2,794,699	$608,500
Cantua Creek	$3,198,997	$2,590,497	$608,500
Lanare	$1,136,193	$693,693	$442,500
La Vina	$3,286,929	$2,801,929	$485,000
Fairmead	$7,575,259	$6,624,759	$950,500
Le Grand	$14,181,766	$13,098,266	$ 1,083,500
West Goshen	$4,457,183	$4,076,183	$ 381,000
Ducor	$7,606,435	$6,967,435	$ 639,000
Total	**$50,225,825**	**$44,276,825**	**$ 5,949,000**

*Excludes solar contract costs and standard GTSR bill credits

4.1.2. Solar, Electrification and Energy Efficiency Components

The CEP Team proposes to construct one or more solar arrays, each serving a cluster of two to three communities. While the CEP Team proposes using the recently-approved CSGT program as a starting point, they propose an additional discount for low-income households that are fuel-switching. These households would receive an approximate 40% bill discount on their post-retrofit

bills, to aim for bill savings of about 20% from pre-retrofit costs. All other customers would receive a 20% discount from their post-retrofit bills (*see* Table 4). The CEP Team states that this is appropriate because low-income fuel-switching customers will likely see an electric load increase on an average of 38%, or more than 2,000 kWh per year. To avoid IOU information technology (IT) system upgrades, the CEP Team proposes that the additional bill discounts be structured as a bill savings guarantee mechanism independent of the CSGT tariff.[2021]

The CEP Team proposes modifying the geographic proximity criteria developed for the CSGT to allow a single solar array to serve communities up to 50 miles from each other rather than the five-mile requirement for CSGT as directed in D.18-06-027. In addition, the CEP Team proposes that GRID be offered bi-lateral contracts for one or more non-competitive power purchase agreements (PPAs) to finance the solar arrays, rather than having to participate in a competitive process.

The CEP Team proposes to define "low-income" as households that are eligible for CARE or the Family Electric Rate Assistance (FERA) rate but also proposes that customer income be determined as the average income over the last five years to address annual variability, and also recommends adding a remediation fund of 20% of the total electrification budget dedicated to low-income fuel switching customers for each community.[2122]

Table 4 summarizes the types of households envisioned and the treatment packages they would receive.

Table 4: Summary of CEP Team Advanced / Basic Electric Packages

Household Type	Subsidized Budget Packages	Community Solar Green Tariff Treatment Target

[2021] CEP Team, Updated (September 2018) Proposal at 17 and 38.
[2122] *Ibid* at 16 – 28.

1. Low-income fuel switching households	Basic Efficiency Package Re-wiring (if needed) Electric Panel Upgrade (if needed) Cooktop conversion Heat Pump Space Heating and Cooling Heat Pump Water Heater Microwave Installation Clothes Dryer	40% discount off post-retrofit electric bill
2. Low income non-fuel switching households	Basic Efficiency Package	20% discount off post-retrofit electric bill
3. Non-low-income fuel switching households	Re-wiring (if needed) Electric Panel Upgrade (if needed) Heat Pump Space Heating Cooktop Conversion	20% discount off post-retrofit electric bill
4. Non-low-income non-fuel switching households	No subsidy budget available	20% discount off post-retrofit electric bill

The CEP Team provides estimated household budget levels for both PG&E and SCE service territories, noting that budgets would vary slightly as the Middle-Income Direct Install (MIDI) program is only available in PG&E territory and only PG&E provides microwave installations as a part of its ESA Program measure offerings.[23] Household budgets would also vary considerably depending on whether or not electrical rewiring or panel upgrades are needed.

Table 5: The CEP Team's Proposed Customer Subsidy Budgets[22][24]

Customer Type	PG&E Average Customer Budget	SCE Average Customer Budget
Low-income fuel switching households	$18,600 + $3,000 (ESA)	$18,710 + $3,000 (ESA)
Low income non-fuel switching households	$10,510 + $500 (MIDI)	$10,620
Non-low income fuel switching households	$3,000 (ESA)	$3,000 (ESA)

[23] PG&E indicated in its November 29, 2018, "Comments on Proposed Decision," that it currently offers microwaves but has requested removal of this measure in a July 16, 2018 advice letter, which is still pending approval as of December 2018.

[22][24] *Ibid* at 23-24.

Non low-income non-fuel switching households	$500 (MIDI)	None

The CEP Team also proposes to give customers a choice in the selection of specific electric appliances installed, up to the maximum subsidized budget for their housing type. These would be available if a dwelling does not require a full electrification scope of work, or if it prefers to swap a "default option" as described above with a new technology, such as home energy storage, solar hot water heating, water heating with energy storage, tankless water heater, and smart thermostat. Bulk purchasing would be used for the default electrification appliances and customers would be allowed to retain propane appliances as desired. The CEP Team proposes that these approaches will add value to the pilot by reducing costs and revealing customer preferences.

The CEP Team would provide a full-electrification subsidy to low-income customers and a subsidy equivalent to a space-heating and cooking conversion to non-low-income customers and would fully subsidize rewiring or panel upgrades if these are needed, for all participants. For additional electrification and energy efficiency needs, non-low-income households would be asked to invest their own funds and/or to participate in the MIDI program, if qualified.

Table 6: CEP Team's Estimated Average Pre- and Post- Pilot Annual Energy Bills and Savings

	Average Pre-Pilot Energy Bill Total	**Average Post-Pilot Energy Bill Total**	**Average Annual Savings (%)**
Low-Income Fuel Switching	$2,420	$774	68%
Low-Income Non-Fuel Switching (electric)	$1,425	$1,142	20%
Low-Income Non-Fuel Switching (gas)	$1,410	$1,133	20%
Non-Low-income Fuel Switching (w/o Storage)	$3,041	$2,522	17%
Non-Low-income Fuel Switching (w/Storage)	$3,041	$2,633	13%
Non-Low-Income Non-Fuel Switching (electric)	$2,272	$2,071	17%

Non-Low-Income Non-Fuel Switching (gas)	$2,228	$1,847	17%

4.1.3. Data Gathering and Evaluation Plan

The CEP Team includes a short summary of its data gathering and evaluation plan. This states the team's intent to collect customer-originated data on home baseline conditions and to support outreach to households following pilot implementation. The CEP Team proposes to collect all data required to fulfill its proposed Reporting Metrics, which include a wide range of issues from options chosen and bill impacts, costs, participant experience, workforce training, and pollutant impacts. The CEP Team will develop a robust, secure database to track and store SJV DAC participant data. The CEP Team did not provide a specific data gathering and evaluation plan budget.

4.2. PG&E Electric

PG&E filed its Revised Proposal on September 10, 2018, 2018 with updated electric pilot proposals for the eight communities of Allensworth, Alpaugh, Cantua Creek, Fairmead, La Vina, Lanare, Le Grand and Seville.[2325] PG&E proposes to offer each of these communities a specific approach from the following: A Community Energy Navigator (CEN); An Appliance-Specific (AS); a No-Cost Total Electrification (No-Cost TE); and a Co-Pay Total Electrification (Co-Pay TE). In sum, PG&E's proposal treats 1,778 households, 1,222 of which currently lack access to natural gas, and achieves total energy cost savings of between 55% (for CARE customers in the TE approaches) to 17% (for non-CARE participants in the AS approach). PG&E's budget includes a 20% contingency factor on the cost of all behind-the-meter (BTM) improvements. PG&E's proposed new budget totals $26.63 million. The total budget needed is higher and assumes the availability of an additional approximately $2.72 million in

[2325] PG&E, "Electric Pilot: Allensworth, Alpaugh, Cantua Creek, Fairmead, La Vina, Lanaare, Le Grand and Seville," September 10, 2018.

leveraged ESA funds, $260,000 in leveraged California Solar Initiative (CSI) funds and $430,000 in customer co-payments.[2426]

Table 7: PG&E Electric Proposals, New and Leveraged Budgets ($M)

Community	Approach	Total Budget Needed	Total New Budget	ESA Leverage	Possible Co-Pay ($M)	CSI leverage ($M)	Total Leverage
ALLENS-WORTH	Co-Pay TE	3.79	3.46	0.26	0.07		0.32
ALPAUGH	AS	1.53	1.40	0.10	0.01	0.01	0.13
CANTUA CREEK	Co-Pay TE	3.57	3.26	0.26	0.05		0.31
FAIRMEAD	AS	5.02	4.35	0.50	0.10	0.08	0.67
LA VINA	No-Cost TE	3.02	2.76	0.26	0.00		0.26
LANARE	CEN	0.68	0.68	-	-		0.00
LE GRAND	AS	9.00	7.59	1.09	0.16	0.16	1.41
SEVILLE	Co-Pay TE	3.42	3.12	0.25	0.04		0.29
Total		**30.03**	**26.63**	**2.72**	**0.43**	**0.26**	**3.40**

Table 8: PG&E Electric Pilot Proposal Budget by Cost Center

Cost Center ($M)	Total	Percent
BTM Expected Total	$14.91	56%
BTM Contingency	$4.47	17%
CEN	$1.33	5%
Admin & Project Mgmt	$5.23	20%
WE&T	$0.14	1%
Bill Protection	$0.08	0%
FTM Grid Upgrades	$0.46	2%
Total Cost Est. ($M)	**$26.63**	

PG&E proposes an "Energy Cost Protection" component for eligible participants in the TE approaches in the communities of La Vina and Seville. The intent of this approach is to ensure that installation of new electric appliances does not result in higher electric bills during their first year of operation. To be eligible for this, PG&E proposes the household must be: (1) CARE-eligible; (2) Take advantage of CARE, FERA, DAC-GT or CSGT program, and all-electric baseline billing options; and (3) provide documentation of 12 recent months of

[2426] PG&E October 8, 2018 Amended Pilot Proposal, at Attachment C-13-C-14, C-71.

propane costs. According to PG&E, this approach will assist in the collection of propane cost data and provide support as households become familiar with new electric appliances and the impact these have on their energy bills. It also supports the participation of customers with low pre-pilot propane costs due to inability to pay.

PG&E proposes to work with local Workforce Investment Boards and Career Readiness Centers to provide awareness of opportunities for new workers to participate in home retrofit jobs. It would encourage local hiring during the pilot but would not establish specific local hiring terms and conditions at this time.

PG&E also proposes to leverage its proposed residential and small business electric hot water heater program proposed in response to AB 2868, which requires IOUs to propose investments for 500 Megawatts (MW) of new energy storage; PG&E indicates that Alpaugh may be the best community to host this approach, as it currently has a grid constraint.[~~25~~27]

4.2.1. Electrification Approaches

PG&E proposes four types of treatments for the eight communities: a CEN; the AS; a No-Cost TE; and a Co-Pay TE. PG&E also outlines community selection criteria by which it matched each community to its proposed approach. These are summarized in Table 9.

Table 9: Summary of Communities Matched with Proposed Approaches

	Affordable Options?	Income Levels	Electric Grid Concerns	Initial Community Preference	Proposed Approach
Allensworth	Low	Low	Med	Gas	Co-Pay TE
Alpaugh	Med	Med	High	Split	AS
Cantua Creek	Low	Med	Med	Electric	Co-Pay TE
Fairmead	Low	Med	Med	Electric	AS
La Vina	Low	Low	Low	Electric	No-Cost TE

[~~25~~27] PG&E Updated Proposal, Attachment A at 37-39.

Lanare	High	Low	Med	Split	CEN
Le Grand	Low	Med	Med	Split	AS
Seville	Low	Low	Low	Split	Co-Pay TE

Table 10: Projected Changes in Participant Energy Costs

	CARE			Non-CARE		
	Average Pre-Pilot Energy Costs Total*	Total Energy Cost Savings	Average Annual Savings (%)	Average Pre-Pilot Energy Cost Total*	Total Energy Cost Savings	Average Annual Savings (%)
Allensworth	$2,518	$1,422	56%	$3,270	$893	27%
Alpaugh	$2,268	$759	33%	$2,935	$510	17%
Cantua Creek	$2,316	$1,315	57%	$2,979	$806	27%
Fairmead	$2,359	$789	33%	$3,131	$515	16%
La Vina	$2,329	$1,228	53%	$3,086	$698	23%
Lanare	$2,326	$0	0%	$3,023	$0	0%
Le Grand	$2,312	$781	34%	$3,059	$513	17%
Seville	$2,421	$1,378	57%	$3,124	$860	28%

*For households lacking natural gas.

4.2.1.1. Appliance-Specific Approach

The objective of the AS approach is to reduce household energy burden by offering efficient electric appliances to households without access to natural gas, including those with inefficient electric appliances. Participants would not receive full electrification, but would receive in-home upgrades earlier in the process, be able to select one major appliance from an expanded list of appliances and could participate in appliance demonstrations. The approach is targeted at larger communities with grid reliability and capacity concerns.

PG&E proposes offering the following in the AS approach:

Table 11: Preliminary List of Appliances for AS Approach

Hot Water Appliances	Other Appliances
- Heat Pump Water Heater	- Standard Electric Range
- Grid-responsive Heat Pump Water Heater	- Ceramic-top Electric Range
- Solar Hot Water	- Induction Electric Range
Space Conditioning	Weatherization for all participants
-Mini-Split Ductless System	
-Grid-responsive Mini-Split ductless system	Other Options[~~26~~28]
- Central Split system with ducting	- Wood-burning appliances

[~~26~~28] PG&E's Revised Proposal at AtchC-9.

- Grid-responsive Central split system with ducting	- Package of several low-cost appliances

4.2.1.2. No-Cost Total Electrification

PG&E proposes to implement a No-Cost Total Electrification Approach in one, well-suited community in order to reduce energy burden by replacing all propane appliances with efficient electric appliances at no cost to participants. PG&E proposes the following list of appliances for participating households:

Table 12: Proposed Appliances for No-Cost Total Electrification Community

Appliance Type
-Hybrid Heat Pump Water Heater
-Heat Pump Space Heather (Central split system or multi-zone mini-split system depending on existing configuration)
-Standard Electric Range
-Energy Star Electric Dryer
-Weatherization Measures

4.2.1.3. Co-Pay Total Electrification

PG&E proposes a final approach, a Co-Pay TE approach, which would seek to reduce energy burden by eliminating propane usage while also reducing cost to other PG&E customers by requiring a co-pay for moderate and high-income households.

Table 13: PG&E's Proposed Co-Pay Structure

Income Level	Definition	Co-Pay
Low-income	CARE eligibility (200% of Federal Poverty Level)	None
Middle Income	MIDI eligibility (201%- 300% of Federal Poverty Level)	10% of cost of home improvements only~~[27]~~[29]
High Income	301% of Federal Poverty Level	25% of the cost of home improvements only

4.2.2. Community Energy Navigator

~~[27] Not including any grid upgrade or administrative costs, for both middle and high Income households.~~

[29] Not including any grid upgrade or administrative costs, for both middle and high Income households.

PG&E proposes as a "Pilot Entry Package" that all pilot communities develop a cohort of local community members who can be a trusted resource for their community on energy issues. Using a common public health strategy of train-the-trainer, each community would nominate members to receive free training to serve as a local expert, gather data and provide informal energy guidance. In their September 10, 2018 filing, PG&E proposed in detail the roles, responsibilities and metrics for success of the CEN and the third-party implementer along with a proposed process for selecting the third-party implementer.[~~28~~30]

4.2.3. Pilot Evaluation Plan

PG&E provides a pilot evaluation plan and timeline that prioritizes collection of data including households treated/untreated; baseline energy usage and household characteristics; costs, energy usage and bill impacts; and non-energy benefits. It proposes to proceed with four distinct types of activities: (1) general data collection and reporting; (2) customer impacts analysis, including energy usage and bill impacts, program satisfaction and customer perceptions and awareness surveys; (3) process evaluation (focuses on program delivery and provides recommendations on how this might be improved); and (4) database development. PG&E proposes the initial following metrics of success: (a) cost impact to DAC residences; (b) community engagement/support; (c) design and implementation costs; and (d) reduction in greenhouse gases (GHGs) and criteria pollutants. PG&E did not provide a specific data gathering and evaluation plan budget.

4.3. SCE Electric

SCE's Updated Pilot Proposal would provide SCE customers without natural gas service and residing in California City, Ducor, or West Goshen with

[~~28~~30] PG&E Updated Electric Pilots, September 10, 2018 at 29

electrification measures, including new appliances and weatherization services. SCE's Updated Pilot Proposal reduces the number of participating households in California City to 500 out of an estimated total of 1,110 that lack natural gas (with CARE- and FERA-eligible customers prioritized). SCE proposes to cover all costs to participants and does not propose any customer cost-sharing. The following table provides details.[2931]

Table 14: SCE's Proposed New Budget Request

	Total New Budget Requested	Percent of New Budget Requested
Administration		
General Admin	$1,508,496	5%
Customer Outreach & Education	$2,000,000	7%
EM&V Pilot Planning & Study	$500,000	2%
Total Administration Costs	**$4,008,496**	15%
Pilot Implementation		
Direct Implementation	$1,920,324	7%
Appliance Replacement	$12,613,927	45%
Electrical Upgrade	$3,846,627	14%
Weatherization	$424,528	2%
Home Audits & Inspections	$785,376	3%
Grid Responsive Water Heater study	$0	0%
Total Pilot Implementation Costs	**$19,590,781**	70%
IOU Data Gathering Plan - SCE Share	$0	0%
20% Contingency	$4,588,438	16%
Total Budget	**$28,187,715**	

SCE notes that the pilot communities fall within "Heat Zones 8 and 9," which are considered hot climate zones according to D.17-09-036, and as such CARE/FERA customers within the communities will not be automatically defaulted to time-of-use (TOU) rates beginning in 2020.[3032] SCE states that it would work closely with the Pilot Team, local businesses, and Community Based

[2931] SCE Revised Proposal at 46. Leveraged program funds include the ESA, the ETP and the EMT&P.

[3032] SCE Revised Proposal at 52.

Organizations to execute pilots. It estimates that most participants will decrease their overall household energy costs, but that it "cannot guarantee bill reductions." Because electricity consumption will increase with new appliances, SCE plans to incorporate education around efficiency and appliance use as part of the pilot.[31][33]

SCE indicates it will actively promote both solar and storage to pilot communities through the DAC-SASH and Self Generation Incentive Program (SGIP) programs. It also indicates that it "may look to partner with a battery storage company and a community solar anchor tenant through the new DAC Community Solar Program," and would seek funds for this outside of its proposed budget.[32][34]

Table 15: SCE's Proposed New Budget[33][35]

Community	Number of Homes Treated	Average Cost Per Household	Total Cost
California City	500	$32,431	$16,215,000
Ducor	222	$33,687	$7,478,572
West Goshen	127	$35,382	$4,493,458
	849	$33,201	$28,187,716

*Excludes leveraged ESA Program and other funds

Table 16: SCE's Estimated Energy Cost Savings

	Pre-pilot energy costs	Post-pilot energy costs	Percent Energy cost change	Energy Savings per month
CA City	$2,588	$907	65%	$140
Ducor	$2,686	$918	66%	$147
West Goshen	$2,660	$895	66%	$147

[31][33] SCE Updated Proposal at 4.
[32][34] SCE Updated Proposal at 28.
[33][35] SCE Revised Proposal at 3, 50, 72-73. SCE states it will "consider" reallocating unspent funds from households that do not use the entire budgeted amount of $21,500 to fund the participation of additional households. Unused funds would be returned to ratepayers.

4.3.1. Appliance Replacement and Electrical Upgrades

SCE proposes to replace/provide up to four electric appliances, including water heaters, space heaters/coolers, cooking appliances, and clothes dryers.

SCE would also pilot grid-responsive water heater technologies in line with existing SCE programming by providing four (4) customers in each community (for a total of 12 participants) with heat pump water heaters (HPWH) with two-way communication and control devices. SCE will use leveraged funding for this test.[3436]

4.3.2. Enrollment in Bill-Savings Rates, Programs, and Tariffs

As part of the pilot activities, SCE proposes to work with customers to develop a "Personal Energy Cost Analysis." Part of this will help sign up customers for available savings-oriented programs and rates. SCE will inform customers about the following programs: CARE/FERA, ESA, All-Electric Baseline, Medical Baseline, DAC-Focused Green Energy Programs.

4.3.3. Pilot Evaluation Plan

SCE's proposed pilot evaluation plan will support, but is differentiated from, the Data Gathering Plan approved in D.18-08-019. SCE's pilot data gathering activities would focus on pre-treatment data on energy usage, current conditions, attitudes and community/market data.

[3436] *Ibid* at 48. SCE indicates that the ETP (Emerging Technologies Program) and EM&TP (Emerging Markets and Technology Program?), would contribute funding towards this proof-of-concept test, totaling $377,331.

4.4. Summary of Electric Proposals

For ease of comparison, Table 17 and Table 18 below summarize the requested updated budgets and unit costs, excluding all leveraged funds, including ESA, MIDI and funds such as the CEP Team's estimates of solar capital costs and standard solar credits. Together the proposed new budgets total $100 million.

Table 17: Summary of Requested New Electrification Pilot Project Budgets

	CEP Team	PG&E	SCE
Allensworth	$3,062,374	3,462,207	
Alpaugh	$1,566,991	1,401,872	
California City			16,215,686
Cantua Creek	$2,590,497	3,264,118	
Ducor	$6,967,435		7,478,572
Fairmead	$6,624,759	$4,346,289	
Lanare	$693,693	$676,638	
La Vina	$2,801,929	$2,760,866	
Le Grand	$13,098,266	$7,593,677	
Seville	$2,794,699	$3,121,922	
West Goshen	$4,076,183		4,493,458
Total New Budget Requested	**$44,276,825**	**$26,627,589**	**$28,187,716**

*Based on Revised Proposal budgets. Excludes leveraged ESA /MIDI funds.

Table 18: Average Unit Costs for Households Lacking Natural Gas

	CEP Team Unit Cost	PG&E Unit Cost	SCE Unit Cost
Allensworth	$26,400	$29,847	
Alpaugh	$34,065	$30,475	
California City			$32,431
Cantua Creek	$24,439	$30,794	
Ducor	$31,385		$33,687
Fairmead	$26,185	$17,179	
Lanare	$46,246		
La Vina	$33,356	$32,867	
Le Grand	$26,092	$15,127	
Seville	$27,947	$31,219	
West Goshen	$32,096		$35,382
Weighted Average	**$28,184**	**$22,061**	**$33,201**

4.5. SoCalGas Natural Gas

SoCalGas proposes to extend natural gas in seven communities within their service territory by extending gas pipelines and building gas distribution networks to select households in certain communities already partially-served with gas. SoCalGas proposes to fully cover BTM upgrades, including home conversion, appliance replacement, and energy efficiency measures. The company proposes that none of the expenses from the gas line construction or appliance upgrades would be borne directly by participating households, and all costs would be covered under utility rates via a two-way balancing account that would be amortized over 10 years. SoCalGas also states that it would "acquire neither ownership of, nor responsibility to maintain, the new distribution infrastructure on the customer-side of the meter." SoCalGas requests a total new budget of $33.3 million, of which $24.7 million would constitute "in-front-of the meter" (IFM) or gas infrastructure costs. Based only on this requested new budget, SoCalGas estimates an average cost per household of $47,983. Table 18, 19 and 20 summarize SoCalGas's proposed budget.[~~35~~37]

Table 18: SoCalGas's New Budget Requested (all communities)

Cost Category	Requested New Budget	Percent of New Request
Administrative	$3,311,810.79	8.6%
BTM Costs	$8,310,824.20	21.7%
IFM Costs	$22,042,489.21	57.5%
Marketing & Outreach	$1,702,000.00	4.4%
Workforce Development	$0.00	
Other (escalation, CWIP property tax, and AFUDC)	$2,971,700.00	7.8%
Total	**$38,338,824.20**	

Table 19: SoCalGas Budget Request: Summary by Community

[~~35~~37] SoCalGas's Revised Exhibit 16 of Updated Pilot Proposals. Tables 4, 1 and 9. The second summary table presented here draws from both Table 1 and Table 9 as the column headers provided in Table 9 were inaccurate.

Community	Number of hh in community	Number of hh lacking gas access	Number of hh Converted (Gas)	Total NEW Budget Requested	Estimated Cost per HH (excludes leveraged funds)	Total Budget (includes leveraged funds)	Estimated Cost per HH (includes leveraged funds)
Allensworth	136	106	106	$ 6,933,100	$ 65,407	$ 7,009,526	$ 66,128
Alpaugh	285	46	6	$ 129,600	$ 21,600	$ 133,926	$ 22,321
California City	5254	1110	224	$ 5,016,800	$ 22,396	$ 5,301,504	$ 23,667
Ducor	199	201	201	$ 11,977,300	$ 59,589	$ 12,121,861	$ 60,308
Lanare	72	15	8	$ 171,800	$ 21,475	$ 177,568	$ 22,196
Seville	122	104	104	$ 6,794,924	$ 65,336	$ 6,869,908	$ 66,057
West Goshen	148	150	150	$ 7,315,300	$ 48,769	$ 7,423,450	$ 49,490
	6216	**1732**	**799**	**$ 38,338,824**	**$ 47,983.51**	**$ 39,037,743**	**$ 48,858.25**

Table 20: SoCalGas's Estimated In-Front-of-Meter Gas Infrastructure Costs

Community	Number of hh Converted (Gas)	To the Meter Costs (Gas Infrastructure)	To the Meter Costs (Gas Infrastructure) /HH
Allensworth	106	$4,953,200.00	$46,728.30
Alpaugh	6	$59,800.00	$9,966.67
California City	224	$1,666,400.00	$7,439.29
Ducor	201	$8,288,500.00	$41,236.32
Lanare	8	$72,500.00	$9,062.50
Seville	104	$4,765,500.00	$45,822.12
West Goshen	150	$4,844,100.00	$32,294.00
Total	799	$24,650,000.00	$30,851.06

In addition to its new budget request, SoCalGas proposes to use ESA Program funding for weatherization activities and proposes to modify the existing CSI Solar Thermal incentive program to cover all costs of solar thermal installations for qualified customers. SoCalGas also seeks to expand the ESA Program to cover "non-energy" household conversions such as structural maintenance and hazardous substance abatement.[~~36~~38] SoCalGas proposes to leverage San Joaquin Valley Air Pollution Control District (SJVAPCD), United States Department of Agriculture (USDA) Rural Development, and Residential Energy Efficiency Loan funds for BTM upgrades and would develop an outreach

[~~36~~38] SoCalGas Revised, Exhibit 3, at 17.

and communication plan to ensure residents are informed of the project plan and what participation entails.

In two communities where customers are a significant distance from planned gas main extensions, Alpaugh and Lanare, SoCalGas proposes a "hybrid" approach where the prohibitively-expensive-to-serve customers would be eligible to participate in electrification efforts. For California City, SoCalGas proposes to provide approximately half of households with solar thermal technology.[~~37~~39]

SoCalGas estimates bill savings for the communities as summarized in Table 21. The company estimates that non-participants energy bill impacts would range from $.25 (CARE) to $2.51 annually, and that the new projects would yield about $308,088 in new annual revenues from increased gas sales annually.[~~38~~40]

Table 21: Estimated Energy Bill Savings

Community	Number of hh Converted (Gas)	Annual Savings (hh)($)(Gas)	Annual Savings (hh)(%)(Gas)
Allensworth	106	$ 1,092	72.80%
Alpaugh	6	$ 984	72.57%
California City	224	$ 1,032	76.11%
Ducor	201	$ 1,092	72.80%
Lanare	8	$ 1,008	73.04%
Seville	104	$ 1,056	72.13%

Note: Excludes electric costs.

[~~37~~39] SoCalGas Revised, Exhibit 3, at 6.
[~~38~~40] SoCalGas Revised Exhibit 16, Table 5.

4.6. PG&E Renewable BioGas Microsystem

PG&E proposes developing a localized gas distribution network for the community of MPT that is served by PG&E's portable gas service and/or locally sourced biomethane or renewable natural gas (RNG). PG&E's proposal takes into account MPT's unique situation as a community within the electric service territory of the Turlock Irrigation District (TID), a municipal utility district that does not fall under the jurisdiction of the Commission. Originally, PG&E evaluated the cost of extending the nearest natural gas mainlines at a distance of roughly 1.5 miles from MPT. It was determined to be cost prohibitive with a total project cost of $6.7 million to serve the 53 households that currently lack natural gas.

On September 10, 2018, PG&E submitted an updated proposal for MPT that leverages the community's proximity to multiple large confined animal facilities. PG&E's biogas microgrid proposal entails a single pilot treatment for all MPT households. The estimated total cost is $4.87 million: for all IFM, BTM and administrative costs (of which $4.1 million constitutes the new budget requested) and $769,000 comes from leveraged, existing program funds.

PG&E proposes that all MPT customers would be eligible for bill protection to buy down the cost of RNG, leaving participating households with "typical residential core customer prices for gas services." PG&E estimates the annual high-cost RNG price premium for MPT households to be roughly $40,000.[3941]

PG&E estimates annual bill savings to customers of $1,350 per household (77 percent less than estimates of propane bills) and expects negligible impacts on

[3941] PG&E Revised Proposal at AtchC-162.

non-participating PG&E customers' bills. With 53 participating households, the average cost per household is $77,600.[~~40~~42]

PG&E's proposed MPT Phase 1 consists of building the distribution network and a gas hub and converting eligible homes from propane appliances to new, high-efficiency natural gas appliances including all necessary home improvements to accomplish the conversion. PG&E would also acquire sufficient land from a nearby dairy during Phase I and design, engineer and size facilities in the hub for the subsequent build out of Phase II utility facilities. PG&E proposes that MPT be supplied with RNG procured by PG&E until Phase 2 is completed. The RNG would be trucked in via six over-the-road trailer deliveries per year. PG&E will use locally-sourced biomethane for the project as an alternative, "if PG&E can come to mutually agreeable terms with a local dairy and/or developer." Phase 1 is proposed to take 12-18 months.[~~41~~43]

In Phase 2, PG&E proposes developing a local source of biomethane from a local dairy by building out the necessary infrastructure within the gas hub and fueling station to utilize excess RNG for vehicles. PG&E proposes that a biomethane digester and related clean up, conditioning and injection facilities be developed as a turn-key project led by the dairy owner and/or a qualified biomethane developer. Costs are assumed to be borne by the dairy biomethane project developer and/or via allowances, subsidies, research and development grants and ratepayer funds allocated in other relevant proceedings or gas utility programs. PG&E would construct, own and operate the interconnection for any excess biomethane not consumed on-site or by local compressed natural gas vehicles. Phase 2 would take 2-3 years to complete depending on permitting and

[~~40~~42] *Ibid* at AtchC-117.
[~~41~~43] *Ibid* at AtchC-121.

financing. The costs related to Phase 2 are not included in PG&E's proposed budget for the pilot phase of this proceeding.

PG&E proposes a discount or incentive to defray the cost premium for biomethane over natural gas. Several options exist for designing this incentive, including but not limited to: (1) a mechanism similar to those used in the solar program; (2) enabling biomethane to realize the same or similar credits when locally sourced and used to serve DACs; and (3) "cost-sharing," by which PG&E means that in order to make the rate for biomethane more affordable for DAC customers, the above market cost (or premium) for biomethane would be shared across all customer classes.

PG&E proposes to establish a one-way balancing account procedure to its Core Fixed Cost Account and Noncore Customer Class Charge Account for recovery of revenue requirements based on actual expenses and capital expenditures.[42 44]

5. Summary of Assigned Commissioner's Proposal

On October 3, 2018, Assigned Commissioner Martha Guzman Aceves issued an Assigned Commissioner's Ruling (ACR) that set forth her proposed pilot projects. The ACR requested party comments on the proposals and directed PG&E, with the Pilot Team, to offer two communities an opportunity to make a community recommendation on which of two approaches the community preferred: natural gas extensions, with some financing to be provided by SoCalGas, or electrification.[43 45] This section summarizes the ACR proposal issued on October 3, 2018.

The ACR proposed five different packages of treatments for the twelve communities, as indicated in Table 22. The ACR sought to maximize use of

[42 44] PG&E Revised Proposal at AtchC-130.

[43 45] Assigned Commissioner's Ruling Proposing Phase II Pilot Projects in 12 Communities in the San Joaquin Valley and Noticing All-Party Meeting, October 3, 2018.

existing program designs and funds through three main components- a Basic Community Package, diversified Advanced Packages, and standardized Common Community Elements.

The ACR proposed to offer all eligible households (with or without natural gas) in each of the pilot communities, except MPT,[4446] the ability to participate in a Basic Community Package. This Basic Community Package consists of the following *existing* programs:

- DAC-GT, DAC-SASH, or CSGT;
- ESA if on CARE or eligible for CARE[4547]; or MIDI;Other eligible programs that can be bundled during outreach and enrollment for the above, including but not limited to enrollment in eligible special tariffs (CARE/FERA/Medical Baseline); and
- SGIP

Second, the ACR proposed that one of five Advanced Packages be offered to each participating community, with the selected package available to all households lacking access to natural gas and earning an annual income within a range to be determined. The ACR proposed that a pilot for MPT be further developed in the next Phase of this proceeding and that, PG&E be required to continue to develop the feasibility of three specific options for MPT.

Third, the ACR proposed implementing a set of relatively standardized Common Community Elements across each participating pilot community. The ACR proposed that these Common Community Elements include participant outreach and education, bill protection for all-electric customers, workforce training and/or local hiring elements; landlord/tenant participation agreements

[4446] MPT residents are not *currently* eligible for *existing* referenced ratepayer funded programs in the Basic Package.

[4547] SCE has requested a change to the ~~eligibility~~ rules for ESA to facilitate the use of existing funds to post-treatment eligible households. Details of this proposal are on page 26 of their September 10, 2018 filing of updated pilot projects.

to address the "split incentive" challenge; the availability of contingency funding; bulk purchasing requirements; data gathering requirement; and a post-implementation evaluation. It noted that a key part of the Common Community Elements would be ensuring a relatively uniform and positive customer education experience for residents as they implement their Advanced Package.

The ACR proposed providing households that are or become eligible for the all-electric- tariff with an additional 20% discount on their post-retrofit bill to ensure that they are not paying more for their energy costs than before they converted to electricity. It also proposed that the pilot projects approved in this rulemaking be exempted from certain rules governing existing programs that would be leveraged to support the pilots.

Table 22: High-Level Summary of ACR Pilot Proposal

Package	Name	Proposed Communities	Total HH Lacking Nat Gas	Total HH Treated
A	Community Choice: Natural Gas OR Electrification	Allensworth Seville	217	217
B	Household Choice: Gas Extension or Electrification	Alpaugh California City Lanare	1,171	509
C	Community Solar and Full/Partial Electrification	Fairmead Le Grand	755	553
D	Electrification and CSGT or DAC GTSR	Cantua Creek Ducor West Goshen	479	479
E	Electrification and DAC-SASH	La Vina	84	84
F	Phase III Exploration: Renewable Biogas Microsystem Demonstration Project or IOU electrification fund	MPT	53	
			2,759	1,842

The ACR determined the budget proposed for each community by identifying the least costly budget per household (unit cost) amongst the IOU or GRID proposals and scaling this by the estimated number of households to be treated; it also capped unit costs at $30,000 per household. The ACR indicated that the proposed budgets incorporated all new itemized costs, including administration costs and contingency costs but excluded costs of leveraged programs, including ESA/MIDI and DAC-GT, CSGT, and CSGT with storage.

The ACR proposed inclusion of a solar element as well as IFM community or BTM household and community storage for each community designated for or selecting electrification. To facilitate this, the ACR proposed that the pilot projects be exempted from certain provisions governing two leveraged programs, ESA and the DAC-GT/CS program, and exempt from the Super User Electric (SUE) surcharge. Parties to the relevant proceedings were served the ACR and invited to comment on these proposals.

Table 23: Summary of ACR's Proposed One-Time Rule Exemptions Only for Pilots

Issue	ACR Proposal
SCE requested a one-time exception for pilot participants to the **ESA Program Weatherization measure rules**, which currently require customers to already be on an "All-Electric" rate to qualify for electric weatherization measures. Due to the timing of enrolling customers into the All-Electric- rate, and the weatherization treatment, under the current rule, SCE's assigned contractor would have to install electric space heating first, then enroll the customer into the All-Electric rate, then come back to perform weatherization treatment. Allowing the weatherization treatment prior to or in parallel with the	For all households that select electrification from the 11 pilot communities regardless of administrator, the ACR proposes a one-time exemption to the ESA Program Weatherization measure eligibility rules[4648] to allow for the most efficient process and maximizing the utilization of the ESA Program for implementing electrification projects in pilot host communities.

[4648] Statewide Energy Savings Assistance Program 2017-2020 Cycle Policy and Procedures Manual, Section 2.3.1, at 18.

appliance installation will help to reduce both the cost of the pilot and impact to the customer with a second visit to the home.	
The **CSGT program** requires competitive solicitations. GRID has requested that GRID not be subject to a competitive solar solicitation to take part in the CSGT program as part of the pilot project.	The ACR proposed a limited test case exemption that only applies if in the final proposed decision GRID is selected as the Advanced Package administrator for a community(s). Under these circumstances, the ACR proposed that GRID should not be subject to a competitive solar solicitation in order to take part in CSGT, and that PG&E shall enter into a bi-lateral contract for the project. GRID would, however be subject to the same price cap established in the originating CSGT decision.
The **CSGT program** as approved requires the community solar project to which the customers are subscribing to be located within 5 miles of the customers' community, as defined by its census tract borders. GRID requested that the locational requirement be expanded from five miles to 50 miles, for SJV DACs only.	Fairmead and Le Grand are located approximately twelve miles apart. The ACR proposed an exemption to the locational requirement for the CSGT program from five to fifteen miles in order to utilize the CSGT program as part of the pilot projects.
Super User Electric Surcharge: D.15-07-011, the *Decision on Residential Rate Reform for PG&E, SCE, and SG&E and Transition to Time-of-Use Rates*, established a "Super User Electric Surcharge" (SUE) that would be charged to ratepayers who consume 400% or more of their baseline allocation in a billing period (including all-electric ratepayers). This charge went into effect for SCE and PG&E in January 2017. The SUE applies only to tiered rates, not to time-of-use (TOU) rates.	In recognition of the increased electric usage that would result from the pilot interventions for electrifying householders, the ACR proposed an exemption from any otherwise applicable Super User Electric Surcharge for customers in the 12 pilot communities that have or are converted to all-electric rates as a result of the pilot.

Based on household income level data, the ACR further proposed that ten of the pilot communities be authorized to use ESA Targeted Self-Certification procedures and/or CARE standard enrollment verification processes. ESA

Targeted Self-Certification is available in geographic areas of IOU service territories where 80% of the customers are at or below 200% of the federal poverty line. Applicants residing within these targeted self-certification areas must sign a "self-certification statement" certifying that they do indeed meet the current income guidelines established for participation in the ESA Program.

In addition to the limited, one-time exceptions to certain existing program rules exclusively for the pilots proposed. The ACR also proposed modifications to SGIP to facilitate use of an existing "Equity Budget" previously adopted and targeted at DACs.[47~~49~~] The ACR's proposed SGIP modifications, for the purposes of the pilot projects are:

- **A $10 million set-aside within SGIP's Equity Budget for the pilot communities,** out of which all of the leveraged SGIP storage options -"**SGIP SJV allocation."**
- **Fully subsidized BTM residential storage** up to a cost cap. This cost cap was proposed at $11,979 per household, a level equal to the average total residential system costs. The ACR assumed 829 systems would be provided.
- **Fully subsidized "Community Service Storage" at community centers or schools.** Subsidize small commercial-sized storage installation BTM at an eligible community location providing a community service, such as a school, community center, or public building, up to a cost cap of $26,379, which is the average total eligible system costs for small commercial systems up to 10 kW. The ACR assumed that somewhere between 9 to 18 systems would be provided.
- **A pilot community-specific income cap.** The ACR proposed that leveraged SGIP funds for household storage be subject to an annual income cap level.

6. Electrification vs. Natural Gas

[47~~49~~] *See* proceeding R.12-11-005.

Several parties, including the Sierra Club/NRDC, Cal Advocates, and CforAT argued that none of SoCalGas' proposed natural gas pilots should be approved. They used six main arguments: (1) Gas extension proposals are not pilots; (2) the gas proposals are not cost-effective, from a ratepayer perspective; (3) gas proposals will not sufficiently improve health and air quality; (4) gas extensions increase safety concerns relative to electricity; (5) gas extensions inappropriately devote public funds to projects incompatible to California's GHG reduction targets; and (6) the SJV DAC pilots should advance California's environmental goals. The Pilot Team and Greenlining Institute strongly supported assessment of natural gas benefits through pilots. TURN originally opposed all natural gas pilots but in final comments stated that one natural gas pilot, in California City, could be supportable if it would provide new cost or other data.[~~48~~50]

Gas Extensions are not Pilots: Sierra Club argued that gas extensions do not meet the criteria stressed in the Scoping Memo that pilots are limited-scale, preliminary versions of a project which will "determine the framework and feasibility" of a project before it is expanded broadly, or that pilots necessarily "test of an idea" that has not previously been implemented.[~~49~~51] CforAT, Cal Advocates, Sierra Club/NRDC and TURN all state that a "paper analysis" based on estimated costs is sufficient to determine the costs of gas main infrastructure or gas line extensions to homes.

SoCalGas rebuts these arguments by pointing out that the parties have applied them only to gas proposals, whereas they are equally applicable to solar installations, as pointed out by CforAT. SoCalGas also points to Cal Advocates'

[~~48~~50] TURN "Comments on ACR Proposal," October 19, 2018.
[~~49~~51] Sierra Club/NRDC, "Comments on ACR Proposal," October 15, 2018; CforAT, "Comments on ACR Proposal," October 15, 2018.

argument that the key pilot learnings will pertain to questions of human behavior, such as landlord-tenant relationships, property owner's cooperation with the pilots, and the residual use of propane.[5052] SoCalGas and the Pilot Team, also argued gas pilots will produce useful information on the structural conditions of homes, post-retrofit gas usage, and bill impacts, and will provide for an assessment of energy burden, updated ~~IMF~~IFM costs, and the effectiveness of various outreach and education efforts. Moreover, SoCalGas states that it actually "does not have experience with complete household conversions from propane or wood to another energy source on a community-wide scale.[5153]

Natural Gas Pilots are Not Cost Effective to Ratepayers: In comments on the original natural gas pilots, TURN argued that, with unit costs of $58,000 per household, natural gas pilots are not cost-effective to ratepayers. ~~In rebuttal, SoCalGas asserted that TURN derived this~~However, TURN noted that the cost ~~estimate based on all~~distribution of SoCalGas's ~~proposed~~updated pilots was bimodal, and~~, "it is not reasonable to assume that all of SoCalGas's proposals will be approved…~~ that three of three of the pilots cost approximately $22,000 per household.[54] SoCalGas also asserted that, "the Commission should review each pilot proposal separately and compare them to the other pilot proposals in the community… SoCalGas has one of the lowest per household costs in Alpaugh, California City and Lanare."[5255]

We find the correct method to assess potential costs to ratepayers is by assessing each proposed pilot individually as compared to others. SoCalGas's proposed pilots in Lanare, Alpaugh and California City have the lowest or

[5052] SoCalGas, "Reply Comments on ALJ Ruling," October 1, 2018 at 8.
[5153] SoCalGas, "Comments on Attachment B," March 26, 2018 at 4; Pilot Team, "Comments on Updated Pilot Projects," October 1, 2018 at 4-5.
[54] TURN, "Comments on Updated Pilots," October 1, 2018 at 17.
[5255] SoCalGas, "Reply Comments on Updated Pilot Proposals," October 15, 2018 at 9.

essentially equal unit costs per household as compared to the other pilot projects proposed for those communities, although the proposed pilots in Lanare and Alpaugh would only treat a subset of the homes lacking natural gas in those communities.

Gas proposals will not sufficiently improve health and air quality: Sierra Club/NRDC argued that indoor methane and gas combustion produces hazardous air pollutants (nitrogen dioxide, carbon monoxide, nitric oxide, formaldehyde, acetaldehyde, and ultrafine particles) that are harmful to human health, and which have been associated with increased respiratory disease. These parties assert that natural gas pilots are "not consistent with the public health and safety objectives of the pilot process or of this proceeding."[53]56

SoCalGas presents the following arguments in response to Sierra Club/NRDC. First, it complies with all California building code requirements, including for proper ventilation. Second, the risk for both electricity and gas is related to insufficient ventilation, in which case, both energy sources release hazardous pollutants. Third, natural gas appliances will reduce indoor air pollution compared to propane and wood consistent with AB 2672.[54]2672.[57]

SoCalGas's assertion that natural gas appliances will improve indoor air quality relative to wood or propane is not disputed. We also have no reason to doubt SoCalGas's assertion that it complies with building code requirements, and that these are designed to ensure healthy indoor air. An objective of the pilots is to assess pre- and post-retrofit indoor air pollution. We therefore find that natural gas pilots can promote better health and air quality over wood burning and propane uses.

[53]56 Sierra Club/ NRDC, "Comments on ACR Proposal," October 19, 2018.
[54]57 SoCalGas, "Reply Comments on ALJ Ruling Questions," October 1, 2018.

Natural Gas Extensions increase Safety Issues Relative to Electricity: Sierra Club/NRDC also argued that approving natural gas pilots increases safety risks to SJV pilot communities, increasing risks from fugitive methane emissions.[55][58] SoCalGas rebuts this by stating that there are high safety risks associated with electrical equipment, as high or higher than associated with natural gas pipelines and that therefore this is not a valid reason to disallow natural gas pilots.[56][59] We find that safety risks alone are insufficient risk to disallow natural gas pilot projects.

Gas extensions inappropriately devote public funds to pilots incompatible with California's GHG reduction targets: Sierra Club/NRDC and Cal Advocates argue that these pilots are contrary to, "achieving California's GHG reduction targets" and would add millions of dollars to utilities' rate base that would take decades for ratepayers to pay off.[57][60]

SoCalGas responds to these parties by arguing that state laws and policies show that "California believes the natural gas pipeline system has a future role in supplying energy" and advancing California's GHG goals. This includes reference to renewable natural gas (biomethane) included as part of California's 100% renewable energy future.[58][61]

PG&E also disputes Sierra Club/ NRDC's assertion that biomethane supplies in the future will only be available to meet two percent of California's current natural gas end-use requirements.[59][62]

The role of renewable energy and existing natural gas pipelines in California's 100% renewable energy future is a complex question that should be

[55][58] Sierra Club/ NRDC, "Comments on ACR Proposal," October 19, 2018.
[56][59] SoCalGas, "Reply Comments on ACR Proposal," October 25, 2018.
[57][60] Sierra Club/NRDC, "Comments on ACR Proposal," October 19, 2018.
[58][61] SoCalGas, "Reply Comments on ACR Proposal," October 25, 2018, at 4.
[59][62] PG&E, "Reply Comments on ACR Proposal," October 25, 2018 at 3.

considered in a dedicated proceeding. At this time, insufficient evidence has been presented to conclude that renewable natural gas and/or existing California pipelines will have no future role in California's energy systems.

Pilots should advance California's environment goals: Sierra Club and Cal Advocates argued that the pilots should advance California's renewable energy goals by only electrifying households. Cal Advocates argued that the SJV DAC pilots should "bring DACs to the cutting edge of energy technology rather than just leaving them less far behind."[~~60~~63]

The Pilot Team responded to Cal Advocates' argument by stating that,

> the objective of piloting only 'cutting edge energy technology' is divorced from the statutory reality of increasing access to 'affordable energy' in the San Joaquin Valley disadvantaged communities. After all, if the Legislature intended the Commission to simply explore the options that 'offer[ed] innovative technologies,' it would have included that language in the statute. However, to the extent that the Commission considers integrating innovative, cutting edge energy technologies into this proceeding's pilot projects, the communities must come first. The Pilot Team remains concerned with the optics and ethics of testing unproven technologies within California's most vulnerable communities.[~~61~~64]

AB 2672 directs us to assess affordable energy options for the SJV DACs. The weight of the record does not support categorically excluding natural gas or renewable natural gas pilots. Sections 8-10 below discuss all proposed pilots and approves three (3) natural gas pilots in California City, Lanare and Alpaugh. Section 7 below considers PG&E's renewable natural gas proposal for MPT.

7. Monterey Park Tract

[~~60~~63] Cal Advocates, "Comments on ALJ Ruling," September 10, 2018 at 20.
[~~61~~64] Pilot Team, October 1, 2018 at 17.

PG&E is the only party that supported the proposed gas "microgrid" proposal in full. Sierra Club/NRDC commented that competition for scarce renewable biomethane in the future is likely to mean that the proposal is not scalable, as costs to purchase this commodity will rise significantly in the future. They object to the average cost per household of $77,000, which it observes excludes the proposed Phase 2 construction of a dairy digester at a nearby dairy. They point out the tentative nature of the proposal, as PG&E has not yet confirmed a partnering dairy. If not achieved MPT would require permanent truck-deliveries of biomethane gas. Finally, they state that indoor combustion of gas produces a range of harmful pollutants and ultrafine particles, all of which are harmful to human health.[~~62~~65]

Cal Advocates also urged the Commission to reject PG&E's gas microgrid proposal, stating that PG&E should have filed the proposal in R.17-06-015, which adopted a Commission policy framework for renewable natural gas and biomethane programs. That proceeding recently approved several pilots. Further, Cal Advocates noted that PG&E can collect and inject renewable natural gas (RNG) without a pilot that tests a local distribution system, which it argues is far too expensive to support.[~~63~~66]

As discussed above, the ACR proposed that PG&E be directed to further explore the feasibility of the microgrid proposal and deferred a decision for the MPT pilot until Phase III.

In response, PG&E stated that it had already analyzed the relative costs of a renewable biogas tank system and its proposed trucking/local dairy-digester approach prior to submitting its proposal. It claims a renewable biogas tank system is prohibitively expensive. PG&E expresses a willingness to work with

[~~62~~65] Sierra Club and NRDC, "Comments on Updated Pilot Projects," October 1, 2018.
[~~63~~66] Cal Advocates, "Comments on ALJ Ruling," September 10, 2018.

Turlock Irrigation District (TID) to develop an electric option but observes that TID has previously stated that this would be too expensive given its small customer base. PG&E argues that its proposal is the least costly option available, when compared to installing tank systems, and that development of a local dairy digester will reduce methane pollution.[6467]

Parties have raised a number of reasonable questions regarding PG&E's gas microgrid proposal for MPT such that we feel it is premature to authorize this project. Therefore, we direct PG&E to continue to gather information and assess development of its proposal. We are particularly interested in additional information regarding PG&E securing a dairy digester partner and more thoroughly assessing the costs and timeline of Phase 2 activities. We stress, however, that this proceeding is not the appropriate forum to consider and approve the full cost of a dairy digester to serve MPT. Instead, PG&E should explore other sources of funding for the dairy digester, including proposing such costs in a proceeding dedicated to that purpose.[6568]

We also direct PG&E to consult with TID and the California Energy Commission (CEC) regarding further opportunities in MPT for electrification, keeping in mind that MPT is one of just fifteen or more similarly situated communities on the list of SJV DACs. PG&E should work with the CEC to explore opportunities presented by ~~the Electric Program Investment Charge (EPIC) or other~~ CEC programs such as the Natural Gas Research and Development Program. Finally, we direct PG&E to file a summary of its progress assessing the feasibility of its proposed option (with digester) or alternative

[6467] PG&E, "Opening Comments on the ACR Proposing Phase II Pilot Projects," October 12, 201 8 at 10 – 14.

[6568] D.17-06-015 or subsequent related proceeding.

options identified for MPT. The summary shall be filed no later than 180 days from issuance of this decision in the form of a Tier 1 MPT Report Advice Letter.

We authorize PG&E a budget of $250,000 for this effort. In addition, as described in greater detail below (Section 9.3 CSI Solar Thermal), MPT households are eligible to participate in the CSI Solar Thermal and CSI-Thermal Low-Income Program which provides incentives for households who install solar water heating (SWH) systems. ~~MPT will also be included in the CEN component so that residents have ongoing engagement with the community energy navigator team authorized in this decision. This engagement will provide resources such as technical assistance and support as they work with PG&E, CEC, TID or others in further developing an affordable energy option for their community.~~

8. Pilot Administrative Structure

AB 2672 does not provide specific guidance on the administrative structure appropriate to advance the legislation's intent. Parties were offered two main opportunities to provide input on pilot administrative structures. The first was in response to the ACR issued October 3, 2018. The parties expressed differing opinions as to whether the Commission should require an RFP or issue a decision authorizing third party bilateral contracts for PA/PI and CEN/CPM functions. ~~66~~[69] Although not our basis for making the determination to require RFPs for

~~66~~[69] During the April 24, 2018 status conference there was a discussion regarding whether and when a solicitation for third party proposals should occur. It was stated that the Commission would first need to make a decision before a solicitation could be issued. (*See* RT at 107-116:4.) This has been a discussion topic throughout the proceeding and parties that submitted proposals in response to the IOUs proposed pilots have been aware that whether an RFP or solicitation for PA/PI would be addressed in the decision for Phase II of the proceeding, and that the proceeding itself was not an RFP process.

these functions, we note that this issue was the subject of discussion at an All Party Meeting on November 1, 2018.[67][70]

The Commission has significant experience with the administrator models under consideration in this proceeding. The ESA Program, for instance, currently operates using separate administrators (the IOUs) in each utility service territory. The SASH program uses a single, third-party administrator to oversee services and installations statewide. The Commission's experience has been that non-utility administrators can successfully manage pilots and programs across different utility service territories, while keeping administrative costs comparable to, or lower than, separate administration by the IOUs.

Approving multiple PAs would allow each utility to oversee some portion of the pilots it has proposed. SCE and PG&E are developing CSGT RFPs for ~~early~~ 2019, which can be coordinated to provide pilot services. In addition, the pilot process evaluation authorized in Section 15 will allow the Commission to compare the performance of the various PAs, which would provide useful insights for Phase III.

We find that there will be valuable lessons provided through approval of multiple PAs. Each of the IOUs will serve as pilot PA for the overall pilot in one or more communities where it has proposed a pilot as discussed below. This will

[67][70] During the November 1, 2018 All Party Meeting, parties were asked to comment on the following administrative models: (1) Utilities conduct an RFP for a single PI for all approved pilots; (2) The Commission selects the PAs for specific communities, and the utilities conduct an RFP for PI(s) for remaining communities; (3) The Commission selects PAs for all pilots.⊥
We note at least six parties, including the Sierra Club/NRDC, TURN, the CEP Team, CSSA, the Pilot Team, and SoCalGas supported the third option. SCE, PG&E, CforAT, CUE and Cal Advocates supported the first or second options, with PG&E indicating a preference for selection of a unique PA for each pilot or pilot community.[0] Other parties also indicated general support for GRID Alternative's suggestion of a program administrator that also serves as the PI, which is based on the successful SASH program administrator model. ⊥
⊥

leverage the IOUs' years of experience administering programs and pilots. We direct each IOU to conduct competitive RFPs to select specific entities to support implementation of the pilots. These competitive RFPs may be designed to select one PI per community, one PI for each IOU, or specific roles within the pilot implementation process other than PI.

In addition, we direct PG&E to manage an RFP process to select a single third-party PA/PI, also via competitive third-party RFP. Selection of this third-party electrification PA/PI will occur through the same process utilized by the Solar on Multifamily Affordable Housing (SOMAH) Program. Commission staff will play a central role in developing the RFP and will make the final decision on the winning bidder. PG&E will contract with the winning bidder. Selection of the third-party PA/PI shall address the following factors:

1. Demonstrated knowledge and experience in the San Joaquin Valley, especially within the specific pilot communities. PAs shall demonstrate this experience by including Community-Based Organizations (CBOs) or individuals on their teams that have shown substantial commitment to and the trust of SJV DAC pilot communities;
2. Demonstrated substantial knowledge of IOU demand-side programs, including SASH/DAC-SASH, CSI Thermal, ESA/MIDI, CARE/FERA, GTSR/DAC-GTSR, and CSGT, and of the objectives and activities of R.15-03-010;
3. Experience with service delivery in a similar program(s) – directly or through partners or subcontractor(s), including delivering home inspection and energy auditing services, and procuring and installing electric energy efficient technologies in residences, including ensuring adherence to all local, state and federal laws and requirements;
4. Workforce development and tracking – Experience documenting and reporting workforce participation goals with a track record of providing training in energy

efficiency installation procedures. Training experience could include training outside entities, formal in-house training, or developing training curricula and may include knowledge of, and demonstrated coordination with, existing utility and other statewide workforce, education, and training programs and pathways; and

5. Databases, data reporting and IT – Demonstrated successful management of federal, state, and/or local funds; with the ability to track and comply with specific programmatic and audit requirements of multiple funding sources; demonstrated experience maintaining a system of internal accounting and administrative control; and demonstrated history of fiscal stability and responsibility.

PG&E will conclude the RFP process and sign a contract with the chosen third-party PA/PI no later than June 30, 2019, unless a different date is determined through a letter from the Commission's Energy Division. The Commission's Energy Division will serve notice of the release of the RFP and of the winning bidder on the service list for this proceeding. PG&E shall release the RFP through its traditional contracting venues.

PG&E, SCE and SoCalGas, and the third-party electrification PA/PI will be responsible for ensuring that all pilot participants, including applicants approved to receive services and subcontractors that provide those services, meet all program requirements. All PAs will develop processes for verifying the quality and completeness of work performed by participating contractors and shall be responsible for the development and management of the pilot, including but not limited to the following activities.

1. **Development of Pilot Procedures,** including:
    a. The documentation of existing household conditions;
    b. Developing electrification/installation scopes of work;

c. Procuring materiel and appliances via IOU bulk purchasing agreements;

d. Installing, or subcontracting the installation of measures per the implementation plan;

e. Performing quality control/quality assurance inspections;

f. Development of data collection methods, digital forms, and databases in conjunction with the Data Gathering Consultant authorized in Phase II Track B-Data Gathering, D.18-08-019; and

g. Outreach coordination with the CEN and CBOs as specified in Section 11.3.

2. **General Program Management,** including:

   a. Supporting the Commission's Energy Division throughout the pilot process, including assisting with reports, public comment process, meetings, workshops, and evaluation activities and other activities as specified in its contract; and

   b. Overseeing subcontractor compliance with program requirements (for example, ensuring that job training, energy efficiency, and other requirements are met).

3. **Implementation Data Collection and Reporting** on program operation and outcomes, such as: collection of data on program operations, including but not limited to applicants' eligibility information, tracking of jobs statuses, contractor compliance, and invoices paid; collection and reporting of data on the number of training participants and hours, as well as the amount of local labor, provided by each pilot installation contractor working in the pilot.

Each of the IOU PAs shall file Tier 2 Pilot Implementation Plan Advice Letters within 90 days from issuance of this decision, detailing their specific pilot project plans, timelines, and the multiple other elements as directed in this decision (including safety plan, workforce components, and leveraging of existing

programs). The third-party PA/PI shall file a Tier 2 Pilot Implementation Plan Advice Letter within 60 days of the date of contract execution.

9. Budgets and Administrative Costs

The question of the appropriate budget levels for the SJV pilots has received a great deal of comment in Phase II and parties hold widely divergent views.[6871] TURN and Cal Advocates recommended that the Commission cap the total pilot budget at $50 million or $30 - $40 million respectively.[6972] Cal Advocates derives its recommendation from the assumption that the pilots should serve some 1,200 – 2,000 households in order to ensure statistically significant sample sizes and that unit costs should not exceed $21,000. It pointed to $13,731-unit costs for SCE's Charge Ready pilot and unit costs of $9,500 - $20,700 for the Mobile Home Park Utility Upgrade pilot program as examples.[7073]

The Pilot Team, in contrast, emphasized the need to "move forward with larger budgets for pilot projects" (emphasis in original). Starting with mobile home combined electric and gas upgrade unit costs and assuming the SJV communities' homes are between 2,100 – 2,500 square feet, the Pilot Team estimates comparable SJV DAC unit costs at $40,000 to $43,000 per home.[7174]

Cal Advocates also recommends reducing SCE's and PG&E's administrative costs. They point out that SCE's pilot overhead costs are

[6871] A PPH was held in Tulare, CA on November 7, 2018, and a Commission Voting Meeting took place in Fresno, CA on November 8, 2018. Local officials, county planning staff, and co mmunity residents provided comment at both meetings. The comments expressed concern that it would not be fair to only partially fund the proposed pilots, as the communities at issue here are disadvantaged communities, some of the poorest communities in the state that are also suffering from some of the poorest air quality in the state. The commenters specifically requested that the pilots be fully funded. We believe that the record in the proceeding, which includes extensive comments by the parties, provides a strong basis for fully funding the approved pilots.

[6972] TURN, "Comments on Updated Pilots," September 10, 2018; Cal Advocates, "Comments on ALJ Ruling Questions," September 10, 2018.

[7073] Cal Advocates, "Comments on ALJ Ruling Questions," September 10, 2018.

[7174] The Pilot Team, "Responses to ALJ Ruling Questions," September 10, 2018 at 8.

estimated at $5.9 million (or 33 percent), as compared to SCE's requested $19.3 million in programmatic funds. "It is unreasonable to spend nearly one dollar on overhead for every three dollars spent in the field," they said. Cal Advocates similarly objected to PG&E's proposed $4.29 million in administrative costs (about 20% of its total requested new budget, excluding leveraged funds). Cal Advocates called these costs "unreasonable and disproportionate."

Cal Advocates recommends that the Commission establish caps on administrative costs (including "general administration" and "direct implementation"), evaluation measurement and verification (EM&V), and marketing, education and outreach (ME&O) costs for all pilots based on non-contingency programmatic costs. It recommends caps of ten percent for administrative costs, four percent for EM&V and six percent for ME&O as consistent with those adopted for energy efficiency programs. Cal Advocates further requests that all PIs be required to submit detailed budgets with a clear accounting of administrative costs to provide greater understanding of how cost estimates were developed and to ensure that PIs spend ratepayer funds wisely.[~~72~~75]

PG&E and CforAT objected to the ACR's proposed reduction of the community and pilot budgets offered by the IOUs and CEP Team. Both parties stated that it was difficult to understand the basis for the ACR's adjustments. PG&E indicated that it had, "diligently calculated budgets for conducting in-front and behind the meter work, and these costs have not been found to be inaccurate.... Lowering the budget cap for each community jeopardizes PG&E's ability to serve all customers in that community." SCE made a similar point.[~~73~~76] PG&E objected to the ACR's proposal to approve SoCalGas's natural gas option

[~~72~~75] Cal Advocates, "Opening Comments on Updated Pilot Projects," October 1, 2018 at 17-24.
[~~73~~76] SCE, "Comments on the ACR Proposal," October 19, 2018.

for Allensworth but leave it with a potential $2.8 million funding shortfall that SoCalGas should attempt to finance, stating that this had "significant ramifications for IOUs." PG&E also objected to the ACR's proposed "Household Choice" approach for California City, Alpaugh and Lanare as potentially leading to "redundant and wasteful" electric and gas infrastructure and therefore as "extremely cost-ineffective." PG&E supports the principle of customer preference, but any decision should temper this principle by concern for "producing excessive costs and suboptimal outcomes."[74]77

CforAT also was concerned about what it called the "arbitrary" nature of the ACR's pilot budgets, which reduced – sometimes significantly – the budgets proposed by the utilities and the CEP Team yet left uncertainties on how PAs could spend the proposed budgets. CforAT also objected that the ACR did not provide guidance on what should happen in the pilot communities should funds be depleted mid-retrofit, creating "unpredictability" for all involved.[75]78

Based on these comments, we decline to adopt a total SJV pilot budget derived from unit cost estimates for other pilot programs as recommended by ~~TURN and~~ Cal Advocates. While budgets and unit costs approved in other proceedings are instructive, they are not the appropriate basis to determine reasonable costs in this proceeding. The pilot proposers have submitted budgets with the level of detail requested in several ALJ Rulings and parties have had an opportunity to submit comment and reply comments on these budgets. We acknowledge TURN's comments that projected pilot costs remain "highly uncertain," and address this point in ~~our~~Section 16 on cost~~-~~ recovery ~~section below~~.

[74]77 PG&E, "Comments on ACR Proposing Phase II Pilot Projects," October 15, 2018.
[75]78 CforAT, "Comments on ACR Pilot Proposal," October 19, 2018.

We ~~concur with Cal Advocates that SCE's and PG&E's administrative costs are higher than that typically approved for similar work, such as~~ energy ~~efficiency programs. Also, we~~ concur with CforAT that there is insufficient justification provided in the ACR for its cost adjustments. PG&E strenuously objected to the ACR's adjustment of its proposed budget but neither PG&E ~~or~~nor SCE appear to have disputed Cal Advocates recommendations to cap certain cost categories. Both PG&E and SCE did, however, in comments on the proposed decision (PD), request flexibility to fund shift between administrative, EM&V and ME&O costs as long as the total budget for these cost categories does not exceed 20% of non-contingency programmatic costs. SCE and PGE argue that the pilots are not similar to the more well-developed energy efficiency programs, require significant customer touch points and oversight, and that increased flexibility is necessary given the need to efficiency deploy resources to support the pilot.[79] We find these arguments to be persuasive.

We conclude that it is reasonable for the Commission to both reduce administrative budgets by five percent each for SCE and PG&E, and to cap administrative (including general administration and direct implementation costs), EM&V and ME&O budgets at ~~10%, 4% and 6% respectively of the approved pilots'~~20% of non-contingency programmatic costs. We ~~reduce~~authorize SCE~~'s and PG&E's approved pilot budgets below by five percent each to reflect this change~~ and PG&E the discretion to determine how to most effectively allocate to these three cost categories within this budget cap of 20% of non-contingency programmatic costs.

[79] SCE, "Comments on Proposed Decision," November 29, 2018 at 3; PG&E, "Comments on Proposed Decision," November 29, 2018.

10. Approved Pilots and Budgets

Based on the previous discussion, this section approves electrification and natural gas pilots in eleven (11) communities. We base our selection on the Guiding Principles and Pilot Selection Criteria introduced above. We ultimately base our selection on a balance of factors: approval of multiple PAs, including a third-party PA/PI, the average costs estimated to install new gas or electric appliances in participating households (unit costs), and community support. We also consider a basic precept which guides our thinking, which is a preference for full funding of approved pilots.

Unlike the ACR, we do not approve a "Community Choice" ~~or~~ natural gas pilot in the communities of ~~either~~ Allensworth ~~or~~and Seville~~.[76]~~, but rather approve electrification pilots for both communities.[80] However, in response to comments filed by the Pilot Team and SoCalGas we provide SoCalGas an opportunity to replace the approved electrification project(s) with its proposed natural gas project under specific conditions. The funding gap between the approved Allensworth and Seville electrification pilots, and SoCalGas's proposal is $3,644,003 and $3,829,098 respectively. If SoCalGas and the communities

~~76~~80 In accordance with the directive set forth in the October 3, 2018 ACR Proposing Phase II Pilot Projects in Twelve Communities in the San Joaquin Valley and Noticing All Party Meeting at 26-27, PG&E and the Pilot Team conducted separate community meetings in Allensworth and Seville to obtain recommendation for either a natural gas extension or electrification pilot option. Although the results provided by PG&E in its November 7, 2018 filing and reported by ~~SHE~~Self Help Enterprises at the November 7, 2018 PPH both show a majority of community members preferred natural gas extensions in both communities, a significant number of community members expressed either a preference for the community solar, electrification option, or willingness to accept either option. We have considered the community recommendations and weighed it along with other critical factors such as California GHG emission reduction policies, costs, and ensuring that the energy option implemented via the pilots will provide clean affordable energy over the long term.[⊥]
Late on November 7, 2018 the Pilot Team also filed the Pilot Team Filing of Residential Recommendations Pursuant to the Assigned Commissioner's Ruling, providing additional information on community household recommendations documenting the results reported at the PPH earlier in the day.

choose to pursue finding funds to fill the gap amounts, SoCalGas must serve and file a Notice of Intent (Notice) within 60 days of issuance of this decision confirming the gap has been filled. The Notice must include assurances that a funding source has been secured and is guaranteed; the amount of the funding secured; and that the funds are currently available to move forward with implementing the pilot project(s) in Allensworth and/or Seville. If this Notice is filed within 60 days, PG&E shall *not* include the community(ies) in its Pilot Implementation Plan Advice Letter. Within 30 days of filing the Notice, SoCalGas must file a Tier 3 Advice Letter with its Pilot Implementation Plan for the natural gas pilot project(s) in Allensworth and/or Seville. If this Tier 3 Advice Letter implementing gas pilots is approved by the Commission, PG&E shall not recover the approved electrification pilot budget for the communities of Allensworth and/or Seville as contained in Table 24. Only one pilot will proceed for each community, and the approved budget amount would be identical for either a gas or electric pilot.

After carefully considering all factors, especially these two communities' support for natural gas pilots and the objective of providing clean affordable energy to SJV DACs, we find that if SoCalGas can secure the funding gap for the communities of Allensworth and Seville in the immediate future the natural gas option will provide significant benefits and additional information to inform the overall economic feasibility study to be conducted in Phase III of the proceeding.

As proposed by SoCalGas, the unit costs to install new gas pipelines were excessively high in ~~each of these communities~~Allensworth and Seville. Further, SCE, PG&E and SoCalGas all vigorously opposed only adopting half of SoCalGas's proposed budget for pilot implementation in these communities, as

suggested in the ACR.[81] The Pilot Team continued to urge adoption of the ACR's Community Choice approach in comments on the PD and SoCalGas also indicated its support for the Community Choice approach in its comments. We have carefully considered these arguments and continue to decline to approve the ACR's Community Choice approach. The record in this proceeding provides a strong basis for fully funding the approved pilots, and party comments do not persuade us otherwise.[82] We do not wish to subject residents of these communities to drawn-out uncertainty. However, as indicated above, we provide SoCalGas 60 days to work with the communities of Allensworth and Seville to secure funding and to file a notice of such financial assurances.

This decision therefore approves electrification pilots in both Allensworth and Seville, with PG&E serving as the PA.

We ~~do, however,~~ approve a variation of the ACR's proposed "Household Choice" approach in California City. We approve SoCalGas's pilot in California City because its unit costs are lower than those proposed by SCE, and California City residents generally desire natural gas. We approve a new budget authorization of $5,591,100 for SoCalGas to implement its proposed pilots in the community of California City as described in its September 10, 2018 Updated Pilot Project and October 3, 2018 Revised Exhibit 16 and as modified in this decision. Table 24 summarizes SoCalGas's approved budget.

We also approve SCE to install electric appliances in up to 100 homes in California City. We share some of PG&E's concerns that this could result in duplicative infrastructure but note that SoCalGas's proposal is to treat 224 homes grouped in the center of town, where a patch-work pattern of homes with and

[81] PG&E, "Comments on ACR Proposal," at 3; SCE, "Comments on ACR," at 3; SoCalGas, "Reply Comments on ACR," at 1.
[82] See footnote 71.

without natural gas currently exists. SoCalGas will focus its provision of pilot services to these fairly close-grouped homes in the center of town. SCE will test its electrification approach outside of this area. This dual offering for California City will provide useful information on what appeals to homeowners about electrification, and what are the barriers to electrification. SoCalGas and SCE shall actively coordinate pilot project outreach activities with each other and California City residents in order to minimize confusion and to avoid duplicative infrastructure. We approve a budget of $3,080,980 for SCE in California City, plus funds allocated for CEN support and bill protection.

SoCalGas proposed the lowest unit costs for ~~Alpaugh and Lanare, and these communities also desire natural gas. We therefore approve SoCalGas's pilot proposal for Alpaugh and Lanare as well. In addition, for Lanare, where just 15 of 150 households lack natural gas, we also approve this community's participation in a CSGT project developed in coordination with the pilot effort (*see* Section 12.1); and DAC-GT or CSGT for Alpaugh. The residents of Lanare have repeatedly expressed their desire to take part in a Community Solar project in communications included in the CEP Team's and the Pilot Team's filings in this proceeding. We approve a new budget authorization of $6,083,431 for SoCalGas to implement its proposed pilots in the communities of Alpaugh, California City and Lanare as described in its September 10, 2018 Updated Pilot Project and October 3, 2018 Revised Exhibit 16 and as modified in this decision. Table 24 summarizes SoCalGas's approved budget.~~certain households in Alpaugh and Lanare. However, as pointed out by TURN and in the Pilot Team's comments, SoCalGas's overall summary of these communities indicated a bi-modal distribution of costs.[83] SoCalGas's Updated Proposal for Alpaugh and Lanare only sought to extend gas lines to the households with low costs and

[83] TURN, "Comments on Updated Pilot Proposals."

would not provide service to some 40 households in Alpaugh and seven to nine households in Lanare that currently lack natural gas. In these small communities, we find that it is inappropriate for this pilot to only serve a subset of eligible households currently dependent on propane or wood. Further, as GRID and the Pilot Team stated, in comments, the proposed decision had overlooked the community of Lanare's clearly stated preference for electrification, although it had identified their clear interest in a Community Solar project. The Pilot Team's comments supported electrifying Alpaugh as well, so that all households in the community could be served.[84]

We therefore approve the CEP Team's proposed budget of $2,223,253 for the communities of Alpaugh and Lanare, plus funds for CEN support and bill protection. Section 11.6 determines not to authorize the single-appliance approach that PG&E proposed for Alpaugh and other communities, and PG&E proposed a CEN-only approach for Lanare. Thus, the CEP Team's proposed Alpaugh and Lanare budgets were the least costly electrification alternatives presented. We also authorize the participation of both communities in a CSGT project developed in coordination with the pilot effort (*see* Section 12.1), or in the DAC-GT, as they desire. We also approve the CEP Team's proposed budget of $22,663,760 for pilots in the communities of Fairmead, La Vina and Le Grand as well as $363,6600 in funding for the CEN Program and $504,000 for bill protection in all five of these communities, bringing the total budget approved for the third party PA/PI RFP to $25,754,613, as reflected in Table 24. We further clarify that the CEP Team's Updated Proposal for Le Grand included a budget to serve all 502 households in this community and we have updated the forecast of homes treated for this community accordingly in Table 25. As discussed in

[84] GRID Alternatives, "Opening Comments on Proposed Decision," November 29, 2018 at 13; The Pilot Team, "Opening Comments on Proposed Decision," November 29, 2018 at 8.

Section 8, we direct PG&E to work with Commission Energy Division staff to hold a competitive RFP seeking an independent third-party PA/PI to implement pilots as described by the CEP Team in these five communities.

We approve SCE's proposals in Ducor and West Goshen as these will provide valuable information regarding the pilot objectives approved in this decision. We reduce SCE's budget by 5% in each case, to reflect reductions resulting from reduced administrative costs as discussed above. We and have also reduced its approved CEN budget in order to maintain a total CEN budget of $1.5 million across all four PAs. We add $200,000 in response to SCE comments on the PD, to fund additional water heater costs.[85] We therefore approve a new budget authorization of $15,371,06515,411,008 for SCE. This budget is to implement its proposed pilots in the communities of Ducor and West Goshen (as described in its September 10,recent 2018 Updated Pilot Project and October 8, 2018 revisionsfilings and as modified in this decision. We also approve SCE), and to pilot electrification of 100 homes in California City as stated above. In addition, SCE should solicit CSGT project(s) to serve West Goshen, and either CSGT or DAC-GT project(s) for Ducor and California City. Table 24 summarizes SCE's approved budget.

We approve PG&E's proposals in Seville,proposal in Cantua Creek, and in Allensworth and Cantua Creek.Seville, as discussed above. We reduce PG&E's budget by 5% in each case, to reflect reductions resulting from reduced administrative costs as discussed in Section 9. We also direct PG&E to work with the CEN to address options for offeringoffer CSI Solar Thermal systems to all MPT residents. We approve a new budget authorization of $9,641,3919,655,835 for PG&E to implement its proposed pilots in the communities of Seville, Allensworth, and Cantua Creek consistent with this decision. In addition, we

[85] SCE, "Comments on Proposed Decision," November 29, 2018.

direct PG&E ~~should solicit CSGT pilot(s) to serve Allensworth and Seville; and CSGT/DAC-GT for Cantua Creek. PG&E should also solicit a CSGT pilot for the~~to solicit CSGT proposals(s) to serve these three communities, as well as the communities of Lanare, Alpaugh, Le Grand, and Fairmead approved for a 3rd party PA/PI. In the interim until the CSGT projects are built, we direct PG&E to enroll all eligible pilot community ~~of Lanare.~~residents in these eight communities onto the DAC-GT program.

~~Finally, we approve a budget of $23,154,009 for pilots in the communities of Fairmead, La Vina and Le Grand, as proposed by the CEP Team. As discussed in Section 8, we direct PG&E to work with Commission Energy Division staff to hold a competitive RFP seeking an independent third-party PA/PI to implement pilots as described by the CEP Team in these communities.~~

Table 24: Approved Pilot ~~Budget~~[~~77~~] Budgets[86]

	~~CEP Team~~Third Party PA/PI	PG&E	SCE	SoCalGas
Allensworth		$3,289,097		
Alpaugh	$1,574,332			~~$129,600~~
Cal City			$~~3,080,980.34~~3,080,980	$5,016,800
Cantua Creek		$3,100,912		
Ducor			$~~7,104,643.40~~7,104,643	
Fairmead	$~~6,624,759~~6,885,853			
Lanare	$648,921			~~$171,800~~
La Vina	$~~2,801,929~~2,536,252			
Le Grand	$~~13,098,266~~13,241,656			
Seville		$2,965,826		
West Goshen			$~~4,268,785.10~~4,268,785	
~~MPT~~Add'l water heater			$200,000	
CEN Program	$~~310,556~~363,600	$~~174,556~~142,000	$~~692,156~~532,100	$~~622,731~~462,300
Bill Protection ~~(2 yr)~~	$~~318,500~~504,000	$~~111,000~~158,000	$224,500	$~~142,500~~112,000
Total by PA	$~~23,154,009~~25,754,613	$~~9,641,391~~9,655,835	$~~15,371,065~~15,411,008	$~~6,083,431~~5,591,100
Total, all communities				**$~~54,249,896~~56,412,556**

The budgets approved above include additional funds for the CEN Program, as discussed in Section 11.3, and for a bill protection program, as

~~77~~[86] Based on IOU and CEP Team's Revised Updated Pilot Project Proposals, filed between October 1 – October 8, 2018. Note: the PD erred and included the CEP Team's proposed additional 20% bill discount in Table 24. The final decision corrects this error by removing these costs, set forth in Table 4 of the CEP Team's proposal, (A6, 17-22) and then adding back additional budget to fully subsidize all participating households in the approved communities, using the data in Table 1 (A6, 2-6). The number of participating households for Le Grand has correspondingly been increased to 502, as proposed by the CEP Team ~~is not included in the budgets set out in this decision~~. The final bill protection measures will be determined after workshops to be scheduled consistent with this decision. (*See* Section 11.2 for a discussion of Bill Protection costs.)

discussed in Section 11.2. Table 25 below indicates the number of homes forecast to receive appliance retrofits in each community.

Table 25: Forecast of Homes Treated, Approved Pilots and MPT[87]

	Total HH	HH Without Nat Gas	Third-party PA/PI	PG&E	SCE	SoCalGas
Allensworth	116	~~116~~106		~~116~~106		
Alpaugh	225	46	46			~~46~~
Cal City	5,254	1,110			100	224
Cantua Creek	119	106		106		
Ducor	222	222			222	
Fairmead	401	253	253			
Lanare	150	~~15~~17	17			~~15~~
La Vina	165	~~165~~84	84			
Le Grand	502	502	~~300~~502			
Seville	~~100~~104	~~100~~104		~~100~~104		
West Goshen	127	127			127	
MPT*				53		
Total per PA	~~7,381~~7,385	~~2,762~~2,677	~~637~~1,008	~~322~~1316	449	~~285~~434
Total, all Communities						**~~1,693~~1,944**

* MPT will receive CSI Solar Thermal technologies only.

Table 26: Summary of Approved Pilots

Community	Cost Per Household	Base Pilot Cost per Community*	Pilot Households	Summary
Allensworth	$31,029	$3,289,097	106	PG&E Electrification, CSGT
Alpaugh*	$34,225	$1,574,332	46	3rd Party Electrification, CSGT, DAC-GT
California City (Gas)	$22,396	$5,016,800	224	Natural gas
California City (Electrification)	$30,810	$3,080,980	100	SCE Electrification, CSGT or DAC-GT
Cantua Creek	$29,254	$3,100,912	106	PG&E Electrification, CSGT
Ducor	$32,003	$7,104,643	222	SCE Electrification, CSGT or DAC-GT
Fairmead	$27,217	$6,885,853	253	3rd Party Electrification, CSGT,

[87] Final estimates of unserved household updated to reflect the IOUs and the CEP Team's October, 2018 Revised Proposals, and the Pilot Team's November 29, 2018, "Comments on Proposed Decision."

				DAC-GT
Lanare*	$38,172	$648,921	17	3rd Party Electrification, CSGT, DAC-GT
Le Grand	$26,378	$13,241,656	502	3rd Party Electrification, CSGT, DAC-GT
La Vina	$30,193	$2,536,252	84	3rd Party Electrification, SASH
Seville	$28,518	$2,965,826	104	PG&E Electrification, CSGT
West Goshen	$33,612	$4,268,785	127	SCE Electrification, CSGT
Average/Total	$28,405.11	$53,714,057	1,891	

* Base costs exclude the CEN and bill protection costs indicated in Table 25. Including these costs raises the average cost per household for the pilot to $29,832.

11. Modified Pilot Elements

This section addresses key elements of the proposed pilots. These elements include income eligibility or co-payment requirements, methods to ensure costs savings and affordability, the role of Community Energy Navigators, and the total number of participating households and budgets.

11.1. Eligibility Criteria and Appliance Co-Payments

Here we discuss pilot eligibility criteria for electric and natural gas appliance retrofits and any co-pay requirements. The CEP Team proposed to install new appliances even in households currently receiving natural gas. TURN argues offering electric appliance retrofits to households with natural gas is contrary to the intent of AB 2672. This should be considered in a fuel switching proceeding, not in a proceeding with the objective of increasing access to affordable energy according to TURN. We concur with TURN. Approved pilots shall only install new electric or natural gas appliances in homes currently lacking natural gas service with a priority on those using wood and/or propane for space heating, water heating or cooking.

Parties also hold a wide range of views on the appropriateness of income eligibility requirements for the pilots. The Pilot Team argues that participating households should not be limited to those that are eligible for CARE/FERA. "[I]ncome levels may be appropriate to determine the scale of programs and subsidies available to households but not eligibility to participate." The Pilot Team is concerned with the accuracy of CARE/FERA identification methods and argues that the CARE/FERA income thresholds do not sufficiently protect the "working poor" nor accurately reflect annual income variability.[~~78~~88] In addition, it is relevant to note that the most recent PG&E general rate case found that FERA participation remained at 14%, suggesting that many eligible customers are likely not enrolled in the program.[~~79~~89]

Greenlining also opposes use of CARE or ESA income thresholds as pilot eligibility criteria. It points to the CEC's SB 350 Barriers Study.[~~80~~90] This study found income eligibility requirements and requirements for financial contributions from homeowners to be "common barriers" to low-income residents' participation in clean energy programs. Greenlining expresses concerns about potential "invasions of privacy" from income eligibility guidelines, which may be potentially "over-restrictive and burdensome." It

[~~78~~88] Pilot Team, "Responses to ALJ Ruling Questions," September 10, 2018.
[~~79~~89] D.18-08-013 (PGE GRC Phase 2).
[~~80~~90] Senate Bill 350 (de Leon) declares that there is insufficient information to fully realize the potential of solar photovoltaic (PV) energy generation to serve low-income customers, including those in disadvantaged communities. It also declares that there is insufficient understanding of the barriers for low-income customers to access all forms of renewable energy being generated in the state and energy efficiency investments. SB 350 required the CEC to conduct a study on barriers to, and opportunities for, solar PV and other renewable energy; barriers to contracting in DACs; barriers to low-income residents and DACs for energy efficiency and weatherization investments, and recommendations on how to increase access to energy efficiency and weatherization investments to low-income customers. The CEC published the "Low-Income Barriers Study, Part A: Overcoming Barriers to Energy Efficiency and Renewables for Low-Income Customers and Small Business Contracting Opportunities in Disadvantaged Communities," in 2016. https://www.energy.ca.gov/sb350/barriers_report/

agrees with SoCalGas that, "if a definition of 'low-income' is required…it should be set at such a level that a significant portion of households in each community have increased access to affordable energy." Acknowledging the complexity of the topic, Greenlining recommends that the Commission establish a Pilot Project Working Group to "study regionally appropriate and narrowly tailored low-income eligibility criteria."[~~81~~91]

TURN and Cal Advocates support income eligibility requirements, not for participation in the pilot per se, but to determine eligibility for full appliance retrofit subsidies. TURN objects to SCE's and the CEP Team's proposals to partially subsidize and the ACR's proposal to fully subsidize appliance retrofits in households exceeding CARE/FERA income-eligibility criteria, i.e. households with incomes exceeding ~~400~~250% of FPG. TURN observes that the CEP Team's proposal could result in subsidies of up to $18,000 even for households that do not qualify for CARE. TURN recommends that the Commission adopt a uniform eligibility standard for all home retrofits and approve PG&E's co-pay model as proposed. Cal Advocates is concerned about SCE's proposal to retrofit all households lacking natural gas access, but concurs that, at minimum, low-income households must be prioritized, as SCE proposed.

CforAT supports the participation of households in the pilot that meet FERA income guidelines of ~~250~~200% - ~~400~~250% of federal poverty guidelines (FPG), including households with only one-two residents that would not normally qualify for FERA rates. If eligibility is limited to CARE/FERA participants, CforAT observes, households with three or more residents could simply provide their bills as evidence of eligibility for the pilot. But CforAT notes that not all households currently eligible for these programs are enrolled in

[~~81~~91] Greenlining, "Comments on Revised Pilot Projects," October 1, 2018 at 2.

the low-income and FERA rates. These households should not be delayed from participating in the pilot for that reason.[82][92]

In comments on the November 9, 2018 proposed decision, PG&E noted that Table 1 included in the PD had incorrect CARE eligibility rates and that it had filed revised estimated CARE eligibility rates in its October 8, 2018 Revised Proposal. PG&E recommended that the exception to the ESA self-certification policy of 80% of customers within a geographic area being at or below 200% federal poverty line by lowering the percentage to 75% for the pilot communities.[93]

~~Table 1 above indicates that over 80% of households likely qualify for ESA/CARE in all but one of the 12 proposed communities. The ACR observes that these communities may therefore exercise ESA's current "self-certification" process, which allows such communities to verify their incomes through self-declarations. SoCalGas further~~Projections contained in the revised version of Table 1 reflecting PG&E's October 8, 2018 updates indicates that four communities are projected to exceed 90% CARE eligibility, three communities to have between 75% - 89% CARE eligibility, and four to have between 60% and 74% CARE eligibility. SoCalGas had proposed that the Commission waive the 80% community threshold during the pilot so that all communities could self-declare income levels, stating this would reduce pilot administrative costs.[83][94]

In considering income eligibility requirements, we must return to the governing statute. AB 2672 directs the Commission to explore ways to ensure affordable energy options to residents of the SJV DACs as defined in the statute. ~~The definition includes that the community in question ranks in the top 25% of~~

[82][92] CforAT, "Comments on ACR Proposing Pilot Projects," October 19, 2018 at 18.
[93] PG&E, "Comments on Proposed Decision," November 29, 2018.
[83][94] SoCalGas, "Comments on ACR Proposal," October 19, 2018.

~~the most disadvantaged communities in California according to the CalEPA's CalEnviro Screen tool.~~ AB2672 recognizes the multiple burdens placed on households in the most disadvantaged communities, including pollution loads and social vulnerability factors. Notably, AB 2672 does not limit its scope to only those households that qualify as low-income.

The proposed SJV DAC pilots are explicitly limited in scope, objectives and budgets and do not propose that all households currently lacking natural gas in the pilot communities receive electric appliance retrofits. The pilot communities are ~~extremely~~very poor communities~~, where we project that over 80~~ where, on a weighted-average basis, eighty-five percent of households currently qualify for CARE, and, on a simple average basis, seventy-nine percent qualify for CARE. It is reasonable to conclude, based on the CEC Barriers study and comments from the Pilot Team and Greenlining, that applying income eligibility requirements in ~~these small~~all pilot communities would ~~very likely~~ inhibit residents' participation in the pilot, which is counter to the objective of the pilot. The pilots should test this conclusion while not triggering the undesired result.

Therefore, we believe that a ~~two~~multi-pronged approach to the eligibility question is reasonable. ~~For the smaller communities[84] (over 80% CARE eligible residents)~~We make several changes in response to party comments on the PD (see Section 19). First, we decline to adopt any income eligibility requirements for ~~either participation in the retrofit component of the pilot or eligibility for full electric appliance subsidies.~~ all but the four communities projected to have between 60% - 74% CARE-eligible households, and for the larger community of California City, where not all households lacking natural gas will be served. Access to fully-subsidized appliances in the pilots in Allensworth, Alpaugh, California City, Fairmead and Le Grand will be limited to households with

~~[84] This includes all pilot communities except California City and Le Grand.~~

incomes of up to 400% of FPG. This approach matches that in place for PG&E's MIDI program, as set forth in the CEP Team's pilot proposal, and is reasonable. For all other communities, (Cantua Creek, Ducor, Lanare, La Vina, Seville, and West Goshen), all households may participate in the pilot and receive fully-subsidized appliance upgrades.

~~First~~Second, all customers wishing to participate in a pilot must have installed a smart meter and must consent to sharing their customer data and usage through either the newly adopted "Click-Through" Authorization or a standard Authorization to Disclose Customer Information form. These two participation requirements are integral to the data collection necessary to evaluate the pilot's impacts. The Community Energy Navigator (discussed in Section 11.3) will assist residents in meeting this requirement~~.~~ and will work with pilot community residents to collect propane and wood usage data on a voluntary basis.

~~Second~~Third, we authorize an "exception" to specific ESA rules for the purposes of the SJV DAC pilots. We authorize all pilot communities' use of the ESA self-certification approach to self-declare their income levels. This will streamline pilot administration and reduce costs for these communities. Participating households shall self-declare their approximate annual income using the existing ESA Program self-certification application form (or a similar form developed for the SJV DAC pilot only).

~~Third~~Fourth, we decline to require "co-pays" of any eligible and participating households during the pilot period. Instead, we direct all PAs to test the supposition that requiring co-payments for households exceeding CARE/FERA income thresholds would inhibit these households' participation in program(s) emerging from this proceeding. To accomplish this, we direct PAs,

working with the CPM and CENs as appropriate, to assess ~~participating~~ households' "willingness to pay" across multiple levels of income by fielding survey questions on the feasibility of various levels of co-pay requirements during the pilot period. Results of these surveys ~~will help the Commission better understand~~may help inform understanding of the impact of income eligibility requirements on residents' participation levels. We will consider information derived from the surveys ~~to determine~~, and other relevant information, to inform our determination of the appropriateness of income-eligibility requirements for a program designed to serve all 178 SVJ DACs in Phase III. We believe this approach reflects the intent of AB2672 and will ~~further~~ provide valuable data for analysis.

~~Finally, we require households to meet income-eligibility requirements to receive fully-subsidized electric appliance retrofits in the larger~~Fifth, for the communities of Allensworth, Alpaugh, California City, Fairmead and Le Grand~~. Currently, not all households lacking natural gas are proposed to receive natural gas or electric appliance subsidies in those communities (324 of 1,110 in California City; 300 of 502 in Le Grand). However,~~ it is appropriate that the pilot directs funds to the most vulnerable households in these communities.[85] Pilot participation in ~~California City and Le Grand will be~~these communities is limited to households ~~meeting FERA income guidelines~~with incomes of up to 400% of FPG, ~~regardless of the number of occupants~~as mentioned. We direct pilot implementers in these ~~two~~five communities to prioritize retrofitting households with income levels up to 250% FPG, should there be a larger number of households wishing to participate. The intent of these steps is to ensure that the pilots serve the most vulnerable households in ~~these larger communities.~~all

~~[85] Le Grand numbers reflect the ACR proposal.~~

communities. As stated above, households in all communities may self-certify their incomes using standard ESA forms or similar.

Finally, we direct PAs to work with the CENs and the Data Gathering Contractor authorized in D.18-08-019 to collect pilot community household income information for use in Phase III of this proceeding. Although we authorize the ESA self-certification method to determine eligibility to participate in the pilot, we recognize that collecting accurate income and demographic information from the pilot households where possible will contribute to the success of Phase III of this proceeding.

11.2. Ensuring Bill Savings and Affordability

Ensuring that participating households experience energy cost savings is a central objective of the pilot. The ACR proposed that the pilots provide an additional across-the-board 20% post-electrification bill discount for a period of 20 years using the same billing mechanism used for the DAC-GT/CS programs. The CEP Team proposal would limit application of the additional 20% post-retrofit bill discount to low-income households that are undergoing full electrification and would apply the bill discount only for the period of the pilot.

In comments on these proposals, Cal Advocates observes that the CEP Team's own modeling estimates average 46% energy cost reductions just by using the already-approved DAC-GT/CS 20% bill discount.[86 95] PG&E makes largely the same point, stating that its modeling projects "minimal" electric bill increases of about $100 - $350/year, so a 20% post-retrofit energy bill discount should be sufficient to yield total household net energy cost reductions (considering propane as well).[87 96] SoCalGas opposed the CEP Team and ACR proposals, observing that CARE customers on electric rates could receive up to a

[86 95] Cal Advocates, "Comments on ACR Proposal," October 19, 2018.
[87 96] PG&E, "Comments on Updated Pilot Proposals," October 1, 2018.

70% post-retrofit discount, which it called unwarranted.[8897] TURN observes that modelling included in the CEP Team's, SCE's and PGE's pilot proposals indicate likely reductions in household total energy costs when moving from propane to efficient electric appliances. CforAT argues that the ACR's proposed discounts are not justified because the ACR did not estimate the bill impacts of the proposal on other ratepayers.[8998]

PG&E, SCE and TURN oppose the ACR's proposal to offer the additional 20% post-retrofit bill discount for 20 years, stating this is not supported by the record, too costly, not replicable and could encourage inefficient behaviors.[9099] TURN argued that it is unreasonable for the bill discount timeframe to, "so greatly exceed both the duration of the pilots and the lifetimes of the appliances," and "not to consider participants' pre-pilot propane and wood costs when evaluating the level of increased energy affordability post pilot." [91100]

The Pilot Team and Greenlining supported both the CEP Team's and the ACR's proposals because it would ensure that the central objective of providing energy cost savings to participating households is achieved.[92101]

The CEP Team also clarified that its proposed Remediation Fund would also serve to provide bill protection. "The Remediation Fund may serve as a guarantee mechanism to ensure that customers do save money on their total energy bills. This would serve to bring customer energy bills down to original

[8897] SoCalGas, "Comments on ACR Pilot Proposals," October 19, 2018.
[8998] CforAT "Comments on ACR's Proposed Pilots," October 19, 2018 at 9; TURN, "Comments on ACR's Proposed Pilots," October 19, 2018 at 10.
[9099] SCE, "Reply Comments on Updated Pilot Proposals," October 15, 2018. PG&E, "Opening Comments on ACR," October 15, 2018.
[91100] TURN, "Comments on ACR's Proposed Pilots," October 19, 2018 at 10.
[92101] Pilot Team, "Comments on Updated Pilot Proposals," October 1, 2018.

energy bill levels in the unexpected case that a customer's total energy bill rises as a result of the pilot."[93][102] The Pilot Team agrees with this approach.[94][103]

Parties including TURN, SoCalGas, SCE and Cal Advocates supported PG&E's proposal to offer an Energy Cost Protection element in La Vina and Seville. TURN opined that it had proposed an approach that was superior to PG&E's but that both merited further exploration in a workshop. SCE, Sierra Club/NRDC, PG&E and Cal Advocates all advocated that the Commission convene a Bill Protection and Energy Cost workshop. Cal Advocates recommends that the workshop start by considering an Energy Division staff proposal.[95][104]

We find that it would be premature to approve the ACR's proposal to provide an additional 20% post-retrofit discount over a period of 20 years. We also have significant questions about the CEP Team's shorter term and more limited 20% post-retrofit bill reduction approach. It is not clear to us that this is the only or best approach to ensure cost savings to pilot participants. We therefore decline to approve ~~the inclusion of~~ either of these two-bill protection approaches at this time.

We agree with parties that ensuring ~~bill~~energy cost savings and affordability for participating households is one of two central objectives for the pilots, as stated above. As opposed to bill savings, energy cost savings consider all pre- and post- pilot energy costs, including propane and wood costs to the extent feasible, as well as electric and natural gas bills. The Pilot Team, in its November 29, 2018 comments on the PD, requested greater clarification on the directed bill protection approach.[105] As such, we clarify here that we direct the

[93][102] GRID, "Comments on Revised Pilot Project Proposals," October 1, 2019 at 4.
[94][103] Pilot Team, "Comments on Updated Pilot Proposals," October 1, 2018.
[95][104] Cal Advocates, "Comments on Updated Pilot Projects," October 1, 2018.
[105] The Pilot Team, "Comments on Proposed Decision," November 29, 2018.

IOUs and the third-party PA/PI to work to ensure energy cost savings for all households receiving appliance upgrades as part of the pilot program.

We concur with the broader group of parties that this topic would benefit from an in-depth workshop discussion. We therefore direct PG&E, SCE and SoCalGas to collaborate with Commission staff to notice, host and facilitate a workshop to discuss bill protection approaches by no later than forty-five (45) days from issuance of this decision. The IOUs shall present their proposed bill protection or affordability elements at the workshop. Other parties may present additional proposals if they wish, and we encourage TURN, the CEP Team and Cal Advocates to present. The proposal presentations should explain the data, modeling and assumptions used to develop proposals and emphasize how the approach minimizes administrative barriers and undue burden for pilot participants while providing reliable protection against energy cost increases. Within 45 days of the workshop, the IOUs shall provide details on their planned approach to ensuring pilot participants' energy cost savings by including their resulting planned bill protections/affordability elements, complete with models and workpapers, ~~within their~~in Tier 2 Bill Protection and Affordability Advice Letters.

In response to comments on the PD from the Pilot Team, Greenlining, GRID and CforAT, detailed in Section 19 below, we clarify here our expectations for the bill protection workshop and subsequent advice letter.

The IOU bill protection workshop proposals and the IOU's Bill Protection and Affordability advice letters:

- Should incorporate monthly bill protection, and, as appropriate, annual true-up, mechanisms and must aim to avoid any monthly "bill shock" for participants;

- Should consider all pre- and post- pilot implementation energy costs (propane, wood, as feasible; and, as appropriate, natural gas and electricity costs);
- May consider a higher baseline allowance and/or a waiver of the Super User Electric Surcharge;
- Must be standardized across PG&E and SCE, who must collaborate and propose the same approach and present this in nearly identical advice letters;
- Will not require presentation of individual customer propane and/or wood bills as an eligibility criteria, but rather will be based on modeled customer costs and generalized assumptions, which may be reviewed and updated periodically to adjust the approach, as needed;
- Will be offered for an initial period of three years to each household receiving appliance upgrades, with a cost of $500 per household as a starting point; and
- Will consider likely rebound effects and comfort needs, particularly amongst the poorest households that may have severely curtailed propane usage for water and/or space heating due to high costs.

In addition, we approve the following steps to review pilot participants' bill and energy cost impacts. We direct SCE, PG&E and SoCalGas to serve and file aggregated, anonymized pre/post bill impact data for all households that receive appliance upgrades as part of the pilot on a quarterly basis. The IOUs shall provide these reports starting end of Q1, 2020, unless directed otherwise by the Energy Division Director, and shall consult with Commission staff on the desired format for submittal of the data. The IOUs will host a workshop for parties to R.15-03-010 to discuss the bill data results 30 days after filing the first quarterly bill impact data summary, collaborating with Commission staff to determine the venue and other details. The IOUs shall also provide the quarterly bill data summaries to the Low-Income Oversight Board and the Commission's Disadvantaged Communities Advisory Group and provide presentations on the

data to these groups as requested. We provide further guidance on the role of Community Energy Navigators on this topic in Section 11.3.

~~Finally, to~~To ensure that anticipated bill protection costs are accounted for, we approve up to $500 in costs for each household receiving appliance upgrades as part of the pilot project (see Section 10, Table 24). This level is a starting point for possible per household costs, based on the unit costs included in PG&E's proposed bill protection approach. The Bill Protection and Affordability Advice Letter directed above shall include a detailed budget proposal. PAs shall strive to minimize bill protection costs as feasible.

We ~~approve below specific exemptions from the Super User Electric Surcharge for pilot participants, this exemption shall be included in the pilot specific tariffs to be submitted by the IOUs after the workshops described above~~also note that the proposed decision erred in both retaining the costs of the additional 20% bill discount as proposed by the CEP Team and adding an additional $500/household for bill protection. We have corrected the final adopted budget to account for this error.

11.3. Community Energy Navigator and Community Based Organizations

Several parties including SoCalGas, Greenlining, CforAT, the Pilot Team and the CEP Team expressed general support for the CEN approach as proposed in the ACR, which was based on PG&E's updated pilot proposal. The Pilot Team argued that it should be designated as the CEN project facilitator/ implementer for all pilots. The Pilot Team also expressed support for the $100,000 per community budget allocation. The CEP Team also requested to act as the CEN program manager in the communities where it is selected to act as PI. In response, the Pilot Team stated that it is "better situated" considering its history

and experience working with SJV DACs and the potential role of the CEN to assist with conflict resolution during pilot implementation.[96][106]

SoCalGas expressed concern with a flat CEN budget allocation per community given the wide range of numbers of households to be served in various pilot project communities. It recommended that PIs submit Tier 2 Advice letters to request appropriate amounts for each community after households have selected their energy option.[97][107] Greenlining highlighted the importance of the CEN as an important tool for effective community engagement and requested that the CENs play a role in providing technical assistance (modeled on guidance provided in the SOMAH Program Handbook) and trouble-shoot for pilot participants during the pilot process. CforAT also generally supports the CEN concept as outlined in the ACR with the caveat that the selected CEN must be prepared to communicate with customers with disabilities, languages other than the predominant language of the community. CforAT highlighted the minimum standards of accessibility for communications tools such as websites and written materials.[98][108]

We recognize that the CEN component will be key to the success of the pilot and we direct all pilot administrators and the third-party PA/PI to offer this service in all pilot communities. However, we decline to approve a specific entity in the role of CEN program manager/facilitator at this time. Instead, we direct that the entity for this integral component be selected via competitive third-party RFP in a process identical to that for the third-party electrification PA/PI, discussed in Section 8. We direct SCE to manage an RFP process to select a single CEN Program Manager (CPM) via competitive third-party RFP.

[96][106] Pilot Team, "Reply Comments on Assigned Commissioner Ruling," October 25, 2018 at 3.
[97][107] SoCalGas, Opening Comments on Assigned Commissioner Ruling, October 19, 2018 at 4
[98][108] Center for Accessible Technology, Opening Comments on Assigned Commissioner Ruling, October 19, 2018 at 17

Commission staff will select the CPM through an RFP process managed by SCE on behalf of the Commission. Commission Energy Division staff will play a central role in developing the RFP and will make the final decision on the winning bidder. SCE will contract with the winning bidder~~.~~ no later than June 30, 2019.

The selection of an entity for the role of CPM shall be based on specific criteria relevant to this proceeding, including:

1. Demonstrated knowledge and experience in the SJV, especially within the specific pilot communities. A successful bidder shall demonstrate this experience by including CBOs or individuals on their teams that have shown substantial commitment to and the trust of SJV pilot communities.
2. Description of how bidder will implement community engagement and outreach in linguistically and culturally appropriate manner;
3. Description of how bidder will reach hard-to-reach customers, including those with disabilities and those reluctant to provide information; and
4. Experience providing energy education and outreach for similar programs.

We also adjust the CPM's budget. PG&E and SCE's 2018 ESA Program Annual Report data on Outreach & Assessment and In-home Energy Education costs indicates that the average cost per home for ESA Program enrollment, including in-home energy education, is roughly $200 per household. The ACR proposed a CEN budget of $1.2 million, which equates to roughly $160 per household for all of the approximately 7,381 households in the pilot communities, including those currently with natural gas. We find this budget level to be ~~insufficient~~sufficient to support the CPM and Community Energy Navigator's activities. The CPM budget shall be no more than $1.5 million for all

~~twelve~~eleven pilot communities ~~in order to reflect the costs demonstrated through the ESA program. In addition, we approve~~. This includes up to $300,000 for program costs to support the activities outlined below.

Consistent with overall party comment on the nature of this work, the CPM's duties will include:

- Developing a community engagement plan;
- Conducting community education and outreach to support each stage of the pilot process;
- Working with the PAs to ensure community concerns, input and outcomes are considered in the implementation process;
- Supporting the development of digital and/or otherwise appropriate eligibility documentation and other pilot application forms and procedures in accordance with this Decision;
- Collecting participant eligibility documentation, in accordance with this decision;
- Providing technical assistance to residents with the application processes;
- Developing and conducting pre-pilot surveys and interviews with residents; and
- Collecting and facilitating access to program resources, including but not limited to a list of relevant agencies and programs.
- Supporting enrollment of MPT residents in the CSI Solar Thermal program.

As discussed in Section 11.2, the IOUs and the third-party PA/PI will work to ensure energy cost savings for households receiving appliance upgrades as part of the pilot program. The CPM and CENs can assist in achieving this goal. Towards this end, the scope of responsibilities of the CPM will include assisting the PAs in working with participating households to identify and select the most

appropriate household electricity rate following the installation of pilot appliances. In addition, the selected CPM should work immediately upon approval of its contract to educate pilot community residents on the importance of retaining propane and/or wood bills to the success of the larger SJV effort, to collect voluntarily- provided propane and wood cost information, and to provide this information to the larger Data Gathering Plan effort. The Pilot Team, which has been assisting in community outreach throughout this proceeding, is requested to undertake this task as well, if feasible, immediately upon issuance of this decision.

In addition, we direct the CPM to research additional grant and loan sources for households and communities to use towards remediation costs, as outlined in Section 11.8. The CPM and the CENs will provide this information to PAs, households and communities; the information must also be included in a quarterly report on the topic of substandard housing directed in Section 11.8. The CPM should work to identify county, local government, federal, state, and private sources of additional housing remediation funds.

Within 90 days of the issuance of this decision, we direct SCE, SoCalGas and PG&E to develop and include in a joint Tier 1 Cost Sharing Advice Letter a co-funding agreement that specifies the cost-sharing scheme for the CPM and CEN activities. Specifically, the agreement should propose a process that provides safeguards to ensure that funding from one utility may not be used to pay for CPM or CEN activities in a different utility's service territory. PG&E. SoCalGas and SCE, in their joint Advice Letter are required to identify a mechanism to ensure that this cross-subsidization will not occur.

The winning CPM bidder shall host a webinar to present its Community Engagement Plan within 90 days of signing a contract with SCE, shall solicit

party feedback during the webinar, and shall serve and file its final plan to the service list in this proceeding within 30 days of the webinar.

11.4. Split Incentives Challenges

The ACR, IOU and CEP Team Updated Pilot Proposals all addressed split incentives challenges to some degree. The ACR proposed that the Commission adopt SCE's proposed approach across all pilots. Some parties commented that this was inadequate. TURN observed that while all implementers had proposed to obtain authorization for electrification work from both property owners and tenants, none had proposed to require any type of signed agreement that would prohibit the property owner from significantly increasing rents or evicting tenants following home improvements. TURN suggested a workshop be convened to address the split-incentive topic and the appropriate protections for the pilots.[~~99~~109] PG&E's view is that it is unreasonable for the Commission to expect utilities to oversee agreements between property owners and tenants, and if this is to be required, the task should be allocated to a non-profit.[~~100~~110]

A central objective of the pilot is ensuring that all households, including those occupied by tenants, experience bill savings as a result of the pilot and do not suffer negative unintended consequences. To accomplish this, it is reasonable to require ~~the~~all pilot administrators to ~~obtain~~seek assurances from property owners that they will not significantly increase rents or evict tenants as a result of home improvements for at least five years following completion of pilot appliance installations. ~~It is also~~ As provided for in SCE's Updated Proposal and in the ACR, the terms and conditions contained in enrollment materials for all pilot projects should reflect the need for both landlord and tenant engagement (mutual consent) and agreement (consent) to participate in

[~~99~~109] TURN, "Comments on Updated Pilot Proposals," October 1, 2018 at 12.
[~~100~~110] PG&E, "Comments on ALJ Ruling Questions," September 10 2018.

the program. The terms, application and enrollment process should also include language restricting rent increases post property upgrades due to pilot activities.[111]

It is reasonable for parties and the PA to explore the appropriate models for such agreements in a workshop setting, including any potential role for community solar crediting in providing property owners with incentives to participate. In addition, SCE and PG&E have raised concerns and have stated that they lack authority to monitor or enforce such agreements. To address these concerns, the PAs may explore engaging a non-profit entity to administer property owner agreements stemming from the pilot, and such an arrangement may be appropriate. We direct SoCalGas, SCE, PG&E to collaborate with Commission staff to notice, host and facilitate a SJV DAC Pilot Split Incentives Workshop within 45 days of issuance of this decision that incorporates these topics.

The workshop should at minimum, consider the federal ~~WAP~~Weatherization Assistance Program (WAP) and SOMAH property owner-tenant agreement or affidavit models, and other models as suggested by parties. Within 45 days of the workshop, the IOUs will each describe and document the split-incentives agreement model for the pilots in a Tier 2 San Joaquin Valley Split Incentives Advice Letter.

Further, we direct the CPM effort to assist pilot community residents in understanding and adhering to the approved property owner- tenant agreement approach.

11.6. Partial vs. Full Electrification

PG&E was the only pilot proposer to suggest offering just one electric appliance option to participating households (a HPWH, a heat-pump space

[111] Greenlining, "Comments on Proposed Decision," November 29, 2018.

heater (HPSH), an electric cook range, or solar hot water heating), in three communities. However, TURN recommended that all pilot implementers be required to offer "partial electrification," or the installation of just one major electric appliance, in addition to "full electrification," the installation of two or more appliances. TURN's motivation for this was two-fold: to reduce unit costs and to ensure that the pilot gather post-retrofit consumption data on a large sample of households receiving one appliance in order to inform the economic feasibility assessment in Phase III. Water and space heating comprise the majority of a typical residential household's natural gas use. TURN argues that replacing one or both appliances could yield significant energy cost savings.[101112] In addition, in comments on the PD, TURN stated, correctly, that:

> ... heat pump space heating systems require a fairly well insulated building shell, proper system installation, and proper sizing of the heating system. There is a non-trivial risk that installing heat pump space heaters in homes that are not sufficiently insulated may result in inadequate heating and/or higher costs. It would be extremely unfortunate if the pilot generated negative experiences with heat pump space heating due to improper site selection or installation.[113]

TURN supports PG&E's AS option with modifications to ensure sufficient uptake of HPWHs.[102114] TURN recommends that partial electrification pilots be

[101112] TURN, "Comments on Updated Pilot Projects," October 1, 2018. TURN presented on a HPWH-only pilot approach at a July 23, 2018 workshop.

[113] TURN, "Comments on Proposed Decision," November 29, 2018 at 10.

[102114] TURN, "Comments on Updated Pilot Projects," October 1, 2018; PG&E, "Updated Pilot Proposal," at 18, Table 9 and footnote 10. PG&E's forecasts for the AS program assume that 50% of households would select a water heater, 25% would select space heating, 15% would select a cooking appliance and 10% would select solar hot water. [0] To ensure that this, or an even more evenly distributed selection of appliances occurs, TURN proposes that PG&E's AS approach be modified to: (1) require an initial 25% cap on space heating measures so as to ensure sufficient water-heater only installations; and, (2) limit the installation of "advanced" weatherization measures to just 50% of the households selecting water heaters. TURN recommends lifting the cap on space heating measures once water heater uptake exceeds 50% of the forecast households.

offered in five communities (1,370 households) and full electrification pilots be conducted in six communities (793 households) in order to ensure collection of sufficient post-retrofit consumption and cost data.[103115] If adopted, TURN's suggested approach would reduce average unit costs to about $21,120 and total costs to install electric appliances in about 2,163 households to about $46 million.

However, the Pilot Team is concerned that only installing a single electric appliance in participating households would shift propane use to other areas of the home. As propane is often unavailable at the end of monthly delivery cycles, the Pilot Team suggests that installing only HPWHs perpetuates reliance on propane, "does not meet the definition of 'affordable energy' delivery," and may not provide health, safety and air quality benefits.

Reducing unit and total pilot costs is a priority, as TURN indicates. ~~However, review~~Review of PG&E's projected participant bill savings in Table 10 suggests that providing just one appliance will reduce CARE and non-CARE households' total energy costs by just 33 percent and 17 percent respectively. This does not provide sufficient cushion in our view to ensure energy costs savings in the participating households. ~~Therefore,~~But we also concur with TURN that there are "non-trivial risks" associated with installing heat pump space heaters in homes that are not appropriate to receive them. Therefore, although we decline to approve PG&E's Appliance Specific approach as proposed or as modified by TURN, we do authorize all pilot administrators the flexibility to not install heat pump space heating in some homes. Particularly, where the building shell may not support heat pump space heating, and/or where remediation costs to improve the home to support the range of authorized

[103115] TURN also proposes to limit "advanced" weatherization measures, such as suggested by SCE, for homes installing only HPWH as these can be "very costly" and their benefits may be fairly small for households not receiving HPSHTURN, "Comments on Updated Proposals," October 1, 2018 at 8 and 24.

appliances exceeds $5,000 (see Section 11.9), we encourage pilot administrators to carefully assess the likely benefits and costs of installing space heating, and to forgo this upgrade if this helps avoid significant or costly home upgrades. Pilot administrators may test different space heating technologies based on home characteristics, subject to informal review and agreement by Commission staff, and must closely monitor the impacts and benefits of these technologies in their final Pilot Project Evaluation (see Section 15).

11.7. Approved Electrification Measures

The pilot proposers have proposed the installation of roughly similar electric appliances. Some proposals offer more or less variety in order to contain costs or to explore residents' preferences and any obstacles to specific technologies. We authorize PAs to install the appliances indicated in the September 10, 2018 Updated Pilot Proposals, with two exceptions. First, we deny PG&E's proposal to install some high-efficiency wood-burning appliances in participating households. PG&E did not provide justification for this and there was little party comment on this matter. Second, we deny the CEP Team's proposal to use funds approved in this decision for in-home energy storage technologies. As pointed out by TURN, it is not appropriate to use funds dedicated to energy affordability to technologies that primarily support energy reliability.

We direct the electrification PAs to use the approved electrification budgets to support the installation of grid-interactive heat pump water heaters, heat pump water heaters, heat pump space heating and cooling units, advanced weatherization measures, ~~high efficiency refrigerators,~~ induction cooktops, and where current propane clothes dryers exist, high efficiency electric clothes dryers. Such installations will likely require code- or in-situ required panel upgrades,

wiring and may incur structural remediation costs to fully electrify the residential end-uses of participating households. Where households already have existing, but inefficient or inoperative electric appliances or systems (*i.e.* an inefficient central AC unit), we authorize the replacement of such appliances with ~~a~~an appropriate high efficiency electric appliance, including heat ~~pump unit~~pumps. The PAs are directed to remove replaced items for proper recycling and/or disposal.

For measures that are currently available in the IOUs' ESA Program, the CSI Solar Thermal program or other direct install energy efficiency programs (MIDI or the IOUs' Mobile Home direct install programs)[~~104~~116] we direct PAs to ensure that that these existing programs fund the measure and installation at the current rates established in each program. As outlined below, we allow ~~IOU~~ administrators to count energy savings from installed measures funded through existing programs, as long as no-double counting of savings occur, especially for measures relevant to the energy efficiency Energy Savings Performance Incentive (ESPI).[~~105~~117]

~~11.6.1.~~11.7.1. Electric Resistance Water Heaters

Several parties objected to SCE's proposal to install electric resistance water heaters in some participating households. SCE stated it would provide electric resistance water heaters to participants in multi-family dwellings and mobile homes because these dwellings may not have sufficient space to accommodate the ventilation requirements of a HPWH. However, Cal Advocates stated that it is unreasonable to require rate-payers to fund the purchase and installation of these types of heaters, which are "neither energy efficient or innovative." This would be unlikely to provide cost savings. Cal

[~~104~~116] PG&E's Direct Install for Manufactured and Mobile Homes and SCE's Comprehensive Manufactured Homes Program

[~~105~~117] Energy Savings Performance Incentive

Advocates argued that SCE did not show any benefit to participants or ratepayers from electric resistance water heaters and urged the Commission to deny this proposal.[106118]

We concur and direct that PA/PI mustthe PAs should not purchase or install electric resistance water heaters as part of the pilot program. As an alternative, we direct PAs to utilize the CSI Solar Thermal program, where funding exists, for mobile home participants wishing to fuel-substitute from propane or wood water heating. ForAdditionally, for the limited number of multifamily properties located in these pilot communities, PAs should offer multifamily properties the CSI Thermal Low -Income Program for multifamily properties, where program funding remains. After passage of AB 797 (Irwin, 2017), these properties meet the new criteria of "under consideration" to receive natural gas and are eligible for the program.

11.7.11.8. Safety Plan

Cal Advocates correctly argues that, "pilot implementers and contractors should perform all in-home work with the utmost concerns for the safety of residents."[107119] All of the Updated Proposals plan to conduct pre-pilot inspections of pre-existing housing conditions that will assess structural, safety issues, and the feasibility of conducting construction and implementing pilots. Cal Advocates recommends that the Commission require the PAs/PI to take several additional steps.

File a specific plan to address safety and environmental issues in a Tier 1 Advice Letter. The plan should describe required workforce qualifications and certifications, all required permits, and how the implementer and contractor will

[106118] Cal Advocates, "Comments on Updated Pilot Projects," October 1, 2018 at 21-22.
[107119] Cal Advocates, "Comments on ALJ Ruling," September 10, 2018 at 8.

respond to specific health and safety issues in homes. PG&E's Risk Management Plan serves as an example of such a plan;

- Promptly and transparently disclose to residents and landlords all information arising from pre-pilot inspections of pre-existing housing conditions inspections that may affect the health and safety of residents;
- Ensure that the contractors and personnel involved in pilot projects are skilled and trained, have the appropriate licenses or certifications, and have strong track records on safety;
- Take all precautions required by law to ensure the health and safety of residents should work uncover asbestos, lead paint or similar hazardous substances;
- Obtain all required permits and conduct all required inspections for in-home work (not providing or paying for BTM upgrades without doing so); obtain any final inspections as required from local agencies upon completion of work; and
- File a safety report following completion of the pilot that documents adherence to the Safety Plan and describes all health and safety issues encountered. As part of this, keep accurate records for purposes of equipment maintenance and warranties.[~~108~~120]

We agree that these are reasonable steps to ensure the safety and health of pilot community residents, which must be paramount throughout the pilot process. We direct the PAs to adhere with the recommendations indicated above and all applicable state, federal and local laws and permitting requirements. We further direct PAs to include in their Tier 2 Pilot Implementation Plan Advice Letters details containing a final Safety Plan. The Safety Plan shall at minimum describe the workforce qualifications and certifications that will be required to implement the project, all potential permits required, and how the PAs and

[~~108~~120] Cal Advocates, "Comments on ALJ Ruling," September 10, 2018 at 8-9; Cal Advocates, "Comments on ACR Proposal," October 19, 2018 at 14.

subcontractors will respond to specific types of health and safety issues in homes. For SoCalGas' natural gas pilots, we expect the Safety or Risk Management components of their Pilot Implementation Plan to include details on the installation, where feasible, of behind the meter or at the meter monitors or sensors to support the distributed detection of fugitive methane gases. It is our expectation that the gas pilot PAs will leverage both the funding authorized in the decision and any relevant Research, Development and Demonstration (RD&D) programs to fund this critical safety component.

Within 90 days of completion of pilot implementation activities, the PAs shall each file another Tier 1 Advice Letter that documents adherence to the Safety Plan, describes all health and safety issues encountered, and summarizes methods taken to ensure retention of accurate records for purposes of equipment maintenance and warranties, as well as any additional information deemed relevant.

~~11.8.~~11.9. Approach to Substandard Housing

The IOUs and the CEP Team all indicated that some homes would need remediation in order to be served by the pilot. A number of parties, including Greenlining and the Pilot Team, emphasize the need for some remediation activities to accommodate the poorest and most vulnerable communities participating in the pilot, as these are precisely the households that AB 2672 seeks to serve.[~~109~~121] This section provides guidance on addressing the issue of substandard housing. We also recognize that additional information on this topic is needed and direct that it be included in the Pilot Implementation Plan Advice Letter. Based on comments on the PD, we direct the PAs to file quarterly reports on remediation costs and needs in the pilot community households and direct the CEN effort to support a more thorough assessment of grant and loan opportunities to fund remediation costs. As determined necessary, the assigned Commissioner or ALJs will convene an additional workshop on approaches to substandard housing in 2019.

In its proposal, SCE stated that it, "anticipates that many homes in the pilot communities may have been built with hazardous material such as lead and asbestos." Its proposed budget includes funds to address the following: code compliance at the time of treatment; support a safe working environment; removal of hazardous materials; test and safely install electric appliances and weatherization measures; and to perform electric panel upgrades or rewiring. According to SCE, "The pilot and hazardous materials removal is not designed to treat the entire home but to ensure that all necessary pilot work is performed safely and according to local building codes." SCE indicated that it will follow ESA Program California Installation Standards and associated safety protocols. It

[~~109~~121] The Pilot Team, "Comments in Response to ALJ Ruling," September 10, 2018; Greenlining, "Comments on ALJ Ruling."

will adhere to all applicable state and local safety procedures during pilot implementation. SCE stated that,

> if a home's wiring… requires a total rewiring of the home to meet code and safely support the new appliances, SCE has not made provisions in this pilot to absorb the cost associated with a complete rewiring of the home and may therefore have to eliminate the participant from pilot participation. ~~110~~122

SCE conservatively assumed that each participating household will require a panel upgrade, new conduit wiring, and a new breaker for each appliance at an average cost per household of $4,530.~~111~~123

PG&E and the CEP Team provided slightly different proposals for addressing building structural concerns and hazardous materials. PG&E indicated that its implementation team will complete a,

> pre-treatment assessment of housing and construction-related issues in each home and will develop plans from that to ensure that home retrofits do not occur until there is a determination that the work can be done safely and up to current building code standards.~~112~~124

PG&E stated that it planned to complete a "siting and safety plan," and that, "certain conditions will preclude extensive in-home work, such as structural concerns." PG&E stated that some safety issues, for instance related to combustion appliances, must be mitigated as part of the workscope but that, "mitigating safety and/or code violations may present a significant cost increase and inconvenience to participants."~~113~~125 PG&E provided an illustrative list of safety issues "typically encountered" during in-home work:

- Structural support / safety concerns;
- Evidence of water penetration/leakage;

~~110~~122 SCE, "Comments on Updated Pilot Proposals," October 1, 2018 at 16.
~~111~~123 SCE, "Comments on Updated Pilot Proposals," October 1, 2018 at 16, 24 – 26,
~~112~~124 PG&E, "Amended Updated Pilot Proposal," October 8, 2018 at 62.
~~113~~125 *Ibid.*

- Water system temperature and pressure relief valve missing/ inoperable
- Insufficient space or clearances for new appliances;
- Inaccessible spaces for assessment or installation;
- Combustion and ventilation air: insufficient outside air and venting of combustion products for combustion appliances;
- Carbon monoxide emissions from combustion appliances;
- Pest infestations; and,
- Hazardous wiring condition, including exposed wiring, knob-and-tube, ungrounded or deteriorated wiring and fixtures.

To address, "homes within the communities [that] may be in a high state of disrepair, require considerable investment in order to be adequately safe, and/or have unpermitted work which has rendered the home out of code,"[~~114~~126] the CEP Team proposed a community-based remediation fund of 20% of BTM costs for low-income households in a given community, which would only be made available to low-income households. The CEP Team proposed to prioritize issues depending on their nature and when they are discovered. The first priority would be to address necessary non-electrical home repair while contractors are on site, within a pre-approved budget limit. Second, would be services that may be provided within a timeframe to coincide with planned electrical work or that can be included within the same permit application process. Third, consideration of remediation work or, "extensive home repair/dilapidation" that requires extensive planning, permitting, or costs more than the set budget limit will occur once the first phase of electrification work is complete, "in order to determine how much of the remediation fund is left available and what the equitable and reasonable priority should be for the remaining remediation needs within the communities." The CEP Team states that use of the remediation fund for work

[~~114~~126] CEP Team, "Revised and Updated Proposal," October 2, 2018 at 29.

valued higher than the total value of the home "may not be applicable," but alternate services and programs should be leveraged whenever possible to assist the customers in the most severe conditions. The CEP Team, "acknowledges the need for further conversation," on this topic.[115][127]

We appreciate the IOUs' and the CEP Team's clarity regarding the likely condition of homes in the pilot communities and the resulting challenges. It is unreasonable, however, for the pilot project to use ratepayer funds to address "extensive home repair/dilapidation," to undertake remediation work valued at a level that exceeds the value of the home, or to undertake a complete rewiring of a home. We explicitly require that PAs will not utilize approved pilot project funding for these purposes. Further, we direct PAs to limit remediation activities or structural repairs to minor or moderately impaired homes and to cap remediation spending for structural repairs at $5,000 per home (excluding funds used for electric panel upgrades, rewiring or to address combustion appliance safety requirements).

In PD comments, PG&E and SoCalGas requested that the Commission adopt a community cap on remediation budgets as opposed to a household cap.[128] While we appreciate the desire to serve the most vulnerable households expressed in this request, we decline to make this change. An important learning of the pilot will be if our reasonable, adopted household cap on remediation costs of $5,000 results in exclusion from the pilot of a significant number of homes. If found to be true, the Commission may need to step back and take a fuller account of additional options to fulfill the mandate of AB 2672 in Phase III. We also wish to accelerate and make continuous learning in this area as much as possible.

[115][127] CEP Team, "Revised and Updated Proposal," October 2, 2018 at 29-32.
[128] PG&E, "Comments on Proposed Decision," November 29, 2018 at 7; SoCalGas, "Comments on Proposed Decision," November 29, 2018 at 12.

Therefore, we adopt an additional reporting requirement for pilot PAs. We direct PAs to include in the quarterly data reports required in Section 11.2 information on remediation costs and needs in the pilot community households. PAs shall work with Commission staff to scope the appropriate information to include in these reports. Our aim with this requirement is to assist the Commission in better understanding the remediation needs in the pilot communities, and, by inference, in the SJV DACs as a whole, in a timely basis.

We also direct the CEN Program Manager and the PAs to thoroughly research and seek to coordinate household and pilot community application for grants and other non-ratepayer funding sources to support remediation of homes in the pilot communities. The CEN Program Manager and PAs will provide more detailed information on non-ratepayer funded remediation funding opportunities in the quarterly reports directed above.

We direct PAs to more fully describe their approach to substandard housing in their Pilot Implementation Plan Advice Letters, which shall include a description of:

- home assessments and home safety/siting plans;
- prioritization; and
- identification of specific conditions that will preclude extensive in-home work.

As determined necessary, the assigned ALJs and/or Commissioner will convene an additional workshop on this topic in 2019.

~~11.9.~~11.10. Workforce Training, Education and Development

A number of parties commented on workforce development and education proposals contained in the ACR and the Updated Proposals. For instance, the CEP Team proposed to offer both solar and energy efficiency retrofit workforce development opportunities that include hands-on installation and classroom

learning elements. PG&E proposed to offer energy education experiences to local K-12 students through its existing program.

The Pilot Team indicated its strong support for the workforce and training approach proposed by the CEP Team, noting that the CEP Team was the only pilot proposer to include a specific budget ($1.3 million) for this activity. The Pilot Team also praised the detailed CEP Team plan that includes classroom instruction and hands-on training and urged its approval.

Several parties commented on the need to ensure training of local residents on maintaining and servicing new technologies such as HPWH. CSSA recommended that the pilot provide a training program for local plumbers to install and service solar hot water heaters, observing that the market for these technologies has rapidly accelerated in recent years, and there is currently a shortage of skilled technicians in areas such as the SJV.[~~116~~129] Sierra Club/NRDC stressed the valuable benefits of workforce training and local hire provisions as well.

~~PG&E and the CEP Team proposed the most detailed workforce training requirements. The proposals are reasonable and pilot communities will benefit from them. We approve implementation of both the CEP Team's and PG&E's proposed workforce training approaches in all approved pilots. We direct the PAs to implement these types of approaches in all pilot communities. The PAs shall also coordinate on implementation of workforce training activities to the extent warranted to take advantage of efficiencies and to streamline the pilots' engagement with local institutions.~~

Should there be a need, we direct the PA to include training on the installation and servicing of HPWHs and HPSHs as part of their training and

[~~116~~129] California Solar and Storage Association, "Comments on ACR Phase II Pilot Proposals," October 19, 2018.

workforce development activities. The PAs shall also track the uptake of solar thermal hot water heating as part of the pilots and incorporate training to local plumbers on the installation and servicing of solar thermal hot water heaters if needed.

PG&E and the CEP Team proposed the most detailed workforce training requirements. The proposals are reasonable and pilot communities will benefit from them. Regarding workforce development, PG&E proposed to work with local Workforce Investment Boards and Career Readiness Centers to provide awareness of opportunities for new workers to participate in home retrofit jobs. PG&E proposed to engage inspection, auditing and installation contractors from the locality of each pilot and to screen them for required certifications and skills, excellent customer satisfaction ratings, and the extent to which the team includes local workers. The CEP team proposed workforce development components that feature both a classroom element and a hands-on installation element covering home retrofits, the basics of home construction, electrification and safety. The CEP Team further proposed using the pilot phase to gather data and lessons on workforce issues to support deeper consideration of a local hire approach such as proposed by the CEC during Phase III of this proceeding.

We approve implementation of both the CEP Team's and PG&E's proposed workforce training approaches in all eleven approved pilot communities. We direct the PAs to implement these approaches in all pilot communities and to coordinate on implementation of workforce training activities to take advantage of efficiencies and to streamline the pilots' engagement with local institutions. We direct the IOU PAs and the third-party PA/PI to ~~implement~~include these workforce development components ~~proposed~~

~~by PG&E and the CEP Team in all pilot communities and to provide their plans for doing so~~ in their Tier 2 Pilot Implementation Plan Advice Letters. ~~This~~

The workforce development components in the Tier 2 Pilot Implementation Plan Advice Letters must provide details on how pilot-funded workforce development efforts meet the pilots' immediate job demands and must provide realistic projections of the local construction, energy efficiency and energy retrofit labor needs at the conclusion of pilot activities. To the extent feasible, pilot-related workforce development efforts in these communities should focus on a sustainable pipeline of workers and jobs, rather than provide training (and employment expectations) for jobs that may not persist beyond the tenure of the pilots. This information will provide a direct benefit to the local communities and help us consider a local hire approach in Phase III of this proceeding. Section 15 provides additional guidance on pilot data gathering related to workforce development.

~~11.10.~~11.11. Appliance Warranties

SCE was the only organization that proposed specific appliance warranty provisions for the pilot project. SCE indicated that it will at minimum provide all manufacturer's equipment warranties to the owner of the equipment and supplement short warranty periods by requiring equipment vendors to price out extended warranties to cover appliances for the duration of the pilot or two years after equipment installation. In addition, SCE indicated that it will require its installation contractors to guarantee the installation of electric appliances for the duration of the pilot or two years after its installation. SCE indicates that such "extended warranties" would help mitigate the risk of failures or repairs but stated that appliance failures outside of the extended warranty period would be the responsibility of the pilot participant.[~~117~~130]

[~~117~~130] SCE, "Updated Pilot Proposal," at 15-16.

Greenlining expressed concern that pilot participants could face great difficulty securing energy services should they experience unsatisfactory appliance performance.[118131] The Sierra Club/NRDC recommended that all pilots should provide contact information for and provide servicing and maintenance of installed technologies during and after the pilot.[119132] They also recommended that a minimum of a five-year guarantee be provided on all installed heat pump technologies.[120133]

We find these recommendations to be non-controversial and they are approved. It is reasonable to require warranties on all appliances and technologies installed as part of the pilot. We direct PAs to provide warranties on all installed appliances as outlined by SCE. In addition, we direct all PAs to provide five-year equipment and installation warranties on all heat pump technologies and to provide contact information for pilot households to request maintenance and servicing of installed equipment during the pilot project and for a minimum of five years from installation. Warranties on ESA Program measures should align with the Minimum Warranty Requirements that have been established for the ESA Program and documented in the ESA Program's Weatherization Installation Standards (WIS) Manual Appendix F as these have been found to be successful. We direct the PA to document the warranty specifics for any installed measures in alignment with this direction and the ESA Program WIS manual. This documentation should be attached as an Appendix to the PA's Tier 2 Pilot Implementation Plan Advice Letters.

~~11.11.~~11.12. Bulk Purchasing

Several parties have introduced or commented on the value of using the IOUs' existing bulk purchasing relationships with appliance, materiel, and other

[118131] Greenlining, "Comments on ACR," October 15, 2018.
[119132] Sierra Club/NRDC, "Comments on ACR Pilot Proposals," October 19, 2018.
[120133] Sierra Club/NRDC, "Comments on ACR Pilot Proposals," October 19, 2018.

measures, including, manufacturers and their distributor networks as a way to drive down pilot costs. For the low-income energy efficiency program, the IOUs began the bulk purchase of CFLs and evaporative coolers in the 1980s and now competitively bid the purchase of all large program appliances including refrigerators, HVAC equipment, window/wall ACs and other appliances in the ESA Program. Through this process, the utilities have been able to purchase appliances at reduced costs, set minimum manufacturer specifications, secure extended warranties, and ensure inventory availability throughout the state.

It is our expectation that the IOU PAs and the third-party PA/PI administrator will collaborate to leverage the IOUs' existing supply chain approaches, including bulk purchasing relationships with manufacturers and/or distributors to secure low-cost, and uniform measures, where feasible. While a key goal of this effort will be to secure lower than market rate costs for pilot intervention technologies and materials, utilizing a set list of measures and manufacturers may help in reducing discrepancies in the installation and operation of pilot measures. Such discrepancies may complicate the evaluation of the pilots authorized by this decision and should be avoided where not justified. Similarly, by using the IOUs' relationships with distributors and/or key manufacturers, we can be assured that the market is prepared to provide the number and volume of measures required by these pilot efforts. This engagement with the market will ensure that products and measures are available and will reduce delays and the negative customer impacts such delays could cause.

We direct the pilot PAs to collaborate with the IOUs to determine where existing material supply chains can be leveraged for the pilots and where new pilot-specific material supply chains need to be developed, with the option to

bulk purchase. We direct SoCalGas, SCE, and PG&E to coordinate with ~~the major~~their existing distributors and/or manufacturers ~~of~~regarding the measures outlined in Section 11.7, and to include the third-party PA/PI in this coordination as much as possible, while preserving confidential information as necessary. Where bulk purchasing already occurs (for example, for measures already provided by ESA) the IOUs should extend these pricing arrangements to the pilot. We include SoCalGas in this activity, as including this utility may provide additional economies of scale to support the bulk purchasing of weatherization measures which are largely fuel agnostic. It is also appropriate to include the third-party PA/PI in bulk purchasing arrangements in order to ensure ~~the lowest prices also for appliances installed in~~similar benefits are extended to pilots administered by the third-party. To document these bulk-purchasing efforts, we direct the IOUs to file a Joint Tier 1 Information Only advice letter 60 days after the approval of the Tier 2 Pilot Implementation Plan filings containing details on the pilot bulk purchasing efforts. The IOUs may submit confidential versions with secured pricing, vendor/distributor and other market sensitive details directly with Energy Division.

~~11.12.~~11.13. Denial of On-Bill Financing

The CEP Team proposes an on-bill financing (OBF) component to be made available to "all customers who choose measures that exceed their budget subsidies," and proposed general terms for this, including a financing pay-back period of up to ten years on a zero-interest basis.[~~121~~134] In its response to the CEP Team's proposal, PG&E agreed that a, "robust OBF program might further close the gap on electrification," but stated that it does not currently have an OBF program for residential customers and that putting this in place would require significant legal, regulatory and operational efforts. PG&E therefore opposed the CEP Team's proposal.[~~122~~135]

On-bill financing is a tool that has not been substantially explored in this proceeding. We agree with the CEP Team and PG&E that OBF is an approach that merits further careful consideration in response to AB 2672. We also agree with PG&E that our timeframe for approving the present pilot does not allow for this. We do not approve use of on-bill financing in the SJV DAC pilots but do so without prejudice to consideration of OBF at a later time.

12. Leveraging Existing Solar Programs

12.1. Solar in Disadvantaged Communities Programs

Multiple parties including PG&E, SCE, and the CEP Team, as well as the Assigned Commissioner in her ACR, proposed leveraging the existing solar programs for DACs as part of the pilot projects. D.18-06-027 created three programs for bringing the benefits of solar to DACs and low-income communities: the DAC-SASH program, the DAC-GT, and the CSGT program.

[~~121~~134] CEP Team, "Revised and Updated Proposal," October 2, 2018 at 32-33.
[~~122~~135] PG&E, "Comments on Updated Pilot Proposals," October 1, 2018 at 10.

We first address a limited exception to existing CSGT rules for the pilots approved here only. Then we turn to specific ways the SJV DAC pilots should leverage these programs.

12.1.1. Limited Exception to Community Solar Green Tariff Program Rule

As previously discussed, the CEP team and the ACR proposed an exception from the locational requirements in the CSGT, which requires customers to live in a DAC that is 5 miles or less from the solar project to which they subscribe. The CEP team proposed allowing SJV DAC pilot participant subscribers to a CSGT project to be in a DAC that is up to 50 miles away from the solar project. The ACR proposed a more targeted exemption of a 15-mile limit for the communities of Fairmead and Le Grand, to facilitate a CSGT project serving those communities. In its comments responding to the ACR, the Pilot Team reiterated the support expressed by the community of Lanare for a community solar option and urged the Commission to also approve a CSGT element in that community's pilot offering.

In replies to the ACR, several parties either supported or did not object to making a limited distance-based exception to this geographic limit solely for the pilots approved in this decision. TURN, Greenlining and the Pilot Team supported the exemption for its potential to more efficiently leverage solar projects for the pilots. PG&E and the CEP Team also believe a limited exemption is reasonable.

We find it reasonable to approve a limited exemption to the CSGT locational requirement rules for the SJV pilot communities. First, we specified in D.18-06-027 that SJV DAC pilot communities identified in this proceeding would be eligible for CSGT.[~~123~~136] Second, that same decision also directed the IOUs to

[~~123~~136] D.18-06-027, at 68 (footnote 41).

"prioritize projects located in top 5% DACs or San Joaquin Valley pilot communities," making clear that the Commission intended the program to specifically target projects in these communities.[124137] D.18-06-027 directed a 5-mile distance requirement but the record in R.14-07-002 did not contain the detailed information submitted in this proceeding. The information submitted in this proceeding includes the distances, locations, and specific pilot proposals that demonstrate a specific need for a different requirement~~;~~: a more expanded geographic area to allow a CSGT project to serve multiple pilot communities.

We acknowledge the detailed proposals in this proceeding for leveraging the CSGT program to develop solar projects to benefit pilot participants and deliver bill discounts and find that without a distance exemption, this leveraging would not be possible. For these reasons, we find that a locational exemption from the 5-mile geographic requirement specifically ~~for the~~to allow a CSGT project to serve multiple pilots approved ~~here~~in this decision to be reasonable. However, we find no specific justification for the CEP Team proposed limit of 50 miles. We find the 15-mile exemption for just two communities to be unnecessarily restrictive, especially in light of our finding that Lanare, Allensworth, Seville, Fairmead, ~~LeGrand~~Le Grand should have the opportunity to participate in a CSGT option. We find a 40-mile limit applicable to all of the communities to be reasonable because each proposed pilot community is located within 40 miles of another pilot community. Providing for CSGT projects for pilot communities up to 40 miles apart will help ensure the community solar projects built in connection with the approved pilots can take advantage of pilot infrastructure, personnel and the existing CSGT program infrastructure. This is consistent with the goals of both programs.

[124137] D.18-06-027, at 82.

The pilots for which we direct development of a CSGT element may enroll subscribers from the participating SJV DAC pilot community or communities, as long as those SJV DAC pilot communities are located in whole or in part no more than 40 miles away from the pilot project-related CSGT solar project. Subscribers may only include SJV DAC pilot community participating households. If pilot community subscribers unenroll or capacity otherwise becomes available over the life of the project, additional subscribers may be enrolled, and unsubscribed capacity should be dealt with according to the rules established for the broader program. All other CSGT requirements established in D.18-06-027 as clarified and corrected by D.18-10-007, continue to apply.

The assigned Commissioner in her ACR proposed the use of bi-lateral contracts as the form for executing the CSGT projects (via an exemption to the CSGT program requirements for projects to be selected via RFP). Multiple parties, including PG&E, TURN, and Cal Advocates objected to the use of a non-competitive process for implementing the CSGT projects. These parties argued that an RFP is essential for ensuring transparency and reasonable costs, and to avoid conflicts of interest. The CEP Team strongly supported the exception from existing CSGT program rules. It stated that its lengthy, substantive work in this proceeding to develop its pilot proposal was "much more collaborative, inclusive of third parties, and encouraging of innovation" than the standard RFP process."[~~125~~138] We find, however, that it is reasonable to use the existing CSGT competitive solicitations, with a specific capacity allocation for SJV DAC pilots and with the resulting project capacity applying towards the applicable IOU's CSGT MW target. The capacity allocation for these SJV DAC CSGT projects should be based on the population of the pilot communities.

[~~125~~138] CEP Team amended reply comments to ACR, as refiled on October 30, 2018.

12.1.2. Targeted Leveraging of Community Solar Green Tariff within Pilot Communities

The ACR proposed providing community solar to specific pilot communities in several different targeted ways. The CEP Team and SCE also proposed to include CSGT projects in their pilots; the CEP Team proposed specific community "clusters" for communities that could each be served by one project. Each of these varying proposals was paired with different options for electrification and contemplated some level of community targeting (as opposed to the CSGT option necessarily being provided to every pilot community).

Parties have broadly supported some application of CSGT as part of the SJV DAC pilots, placing special focus on doing so in cases that are most efficient, relevant to pilot learnings, and for communities that expressed enthusiasm for community solar during the course of the proceeding. We therefore authorize an approach for leveraging and targeting CSGT that takes a middle ground between that proposed by the CEP Team (in community clusters) and the ACR (requiring specific projects, with different applications for a few communities).

We direct SCE and PG&E to solicit CSGT projects to serve the SJV DAC pilot communities. SCE and PG&E shall target the SJV DAC communities of Cantua Creek, Lanare, Fairmead, Le Grand, Allensworth, Seville, Ducor and West Goshen for CSGT proposals. For the pilot communities of Alpaugh and California City the assigned utility pilot administrator is directed to attempt either a CSGT or DAC-GT to meet their solar needs. For La Vina, DAC-SASH and DAC-GT should both be optimized.

We note that under program rules, CSGT and DAC-GT projects are solicited in a single RFP; we intend for the IOUs to include these targeted requests in their existing program-wide RFPs. Utility Advice Letters to implement CSGT and DAC-GT are currently pending; the program RFP should

be released no later than 90 days after approval of these Advice Letters, unless another timeline is specified in the Energy Division resolution.

In addition, to ensure alignment with pilot interventions, community input and interest, and pilot timeline, we envision that the third-party PA/PI selected in the process described in Section 8 will bid into the above RFP to develop the CSGT projects. This expectation shall be included in the third-party PA/PI RFP and contract. If the winning third-party PA/PI is not selected as the developer for any of the above CSGT projects, it should collaborate with the selected bidder as needed to help support a positive community experience and alignment with pilot interventions.

12.1.3. DAC-Single Family Affordable Solar Homes and the Single-family Affordable Solar Homes (SASH)

Although the single, statewide administrator has yet to be selected through a competitive process, the DAC-SASH is a new program similar in structure to SASH, which provides incentives to support and fund the installation of photovoltaic (PV) systems on low-income households, defined as meeting CARE / FERA eligibility requirements. The program is allocated $10 million per year for twelve years, from 2019-2030. It is estimated that the program's funding level could support approximately 1,000 installed systems per year or 12,000 systems over the life of the program. The Single-family Affordable Solar Homes (SASH) program is a $162 program that supports solar photovoltaic installations for low-income homeowners served by PG&E, SCE, and SDG&E.

Both the SASH and the DAC-SASH program ~~offering~~offerings may be of great interest to residents in pilot communities and the electrification PAs should encourage participation in this program as part of its activities. We do not direct any particular community-level targeting, with the exception of La Vina.

The ACR proposed an Advanced Package for La Vina centered around leveraging DAC-SASH (as opposed to other solar offerings) because the community already has relatively extensive penetrations of rooftop solar, making it efficiently positioned for greater expansion through this program.[126139] No party proposed a specific targeting of DAC-SASH (*i.e.*, making the program a central element of a project) in pilot interventions, nor did any party object to targeting La Vina in this way. We find that focusing on expanded uptake of this program in this community is worthwhile; it will add diversity and data to the pilots and useful information about the relative success or attractiveness of the option. The RFP for the third-party PA/PI shall require bidders to propose strategies for encouraging participation in DAC-SASH by residents that meet DAC-SASH program eligibility criteria in the community of La Vina.

In addition to the targeted focus for La Vina, it is also reasonable to encourage leveraging both DAC-SASH and SASH in the pilot communities more broadly. It is our intention that all single-family households participating in the pilots be encouraged to participate in ~~the~~either SASH or DAC-SASH program. By this, we intend simply for all PAs to coordinate with the DAC-SASH ~~program~~and SASH programs to attempt to leverage the program where feasible. In their Tier 2 Pilot Implementation Plan Advice Letters, PG&E, SCE and the third-party PA/PI are directed to include details on the coordination of their electrification work with the DAC-SASH ~~Program~~and SASH Programs. These plans shall, at minimum describe coordination plans with and commitments from the DAC-SASH ~~administrator~~and SASH administrators.

[126139] Assigned Commissioner's Ruling, at 33.

12.2. CSI Solar Thermal

In response to the October 3, 2018 ACR, CSSA recommended that the SJV DAC pilots leverage existing CSI-Thermal funds to provide solar water heating to increase access to clean energy. In particular, CSSA highlighted the passage of AB 797 (Irwin 2017) that modified the CSI Thermal water-heating program to facilitate the participation of households in the San Joaquin Valley.[~~127~~140] CSSA also requested a local increase in the CSI Thermal program rebate levels for participants in the pilots. Specifically, CSSA requested that an increased rebate be included as part of the ACR's Advanced Packages, paired with natural gas or electric back-up water heaters.

SoCalGas included solar thermal installations in its proposal and similarly requested alteration of the CSI Thermal Program such that the incentive would cover the full measure and installation costs in SJV DAC pilot communities. In its Updated Pilot Proposal, SoCalGas proposed to treat half of California City households with solar thermal water heating technologies.[~~128~~141] PG&E also supported leveraging the CSI Thermal Program in the pilots, including in MPT.[~~129~~142]

Noting the CSI Solar Thermal Program expansion enabled by AB 797, we direct all PAs to offer pilot participants the CSI Thermal Low-Income Program where eligible and feasible. For instance, in housing situations where HPWH are potentially infeasible (some mobile homes or multifamily properties/units with space constraints), we direct the PAs to provide the CSI Thermal Program as an

[~~127~~140] AB 797 modified the CSI Thermal Program by directing that: "the Commission shall expand the program to homeowners that lack access to natural gas and rely on propane or wood burning to fulfill their space heating, water heating, and cooking needs who are being considered to receive natural gas and who reside in the San Joaquin Valley communities identified by the commission pursuant to paragraph (1) of subdivision (a) of Section 783.5."

[~~128~~141] SoCalGas, "Updated Pilot Project Proposal," September 10, 2018.

[~~129~~142] PG&E, "Updated Pilot Project Proposal," September 10, 2018.

option, to the fullest extent possible, noting program funding availability. In addition, we direct the PAs to target the CSI Thermal Program to single-family households where feasible and beneficial for the household.

As we did in response to the Aliso Canyon Emergency, we also grant SoCalGas and PG&E the authority to file Tier 2 CSI Thermal SJV DAC Advice Letters modifying their CSI Thermal Program incentive levels to provide fully-subsidized solar thermal water heating systems to eligible pilot participating households. For multifamily properties, we believe the current funding incentives levels are sufficient to cover installation costs, but we expect the advice letters to include strong commitments from SoCalGas and PG&E to coordinate the delivery of these systems to eligible properties in the pilot communities, including in coordination with the third-party PA/PI and, where applicable, with SCE.

SCE, SoCalGas and PG&E, and the third-party PA/PI, are directed to include in their Tier 2 Pilot Implementation Plan Advice Letters details on the coordination of each PA's work with the appropriate CSI Thermal Low-Income Program. In addition, the Tier 2 Pilot Implementation Plan Advice Letter filings must include a co-signed attestation from the appropriate IOUs' CSI-Thermal Program as an attachment that documents this coordination. Since SCE's CSI-Thermal Program has exhausted its funding, we direct SCE to file coordination details with SoCalGas to leverage its available CSI Solar Thermal Program to support these solar thermal water heating directives.

13. Storage

13.1. Behind the Meter and In-front of the Meter Battery Storage

The CEP Team, PG&E and SCE all proposed some type of storage element as part of their pilots. The CEP Team proposed to include in-home energy storage (battery or water heating with energy storage) as an "optional" measure that participating households could select as part of their allocated home improvement subsidy. PG&E suggested it could leverage an electric hot water heater storage pilot it proposed to address AB 2868's new storage mandates, most likely in the city of Alpaugh. SCE indicated it would actively promote both solar and storage through the DAC-SASH and SGIP programs and "may" look to partner with a battery storage company and community solar anchor tenant through the new CSGT program.

The ACR proposed a greater focus on storage in order to address both reliability and resiliency needs in the pilot communities. The ACR proposed several related modifications to the SGIP program that would help address its proposal:

- A $10 million set-aside within SGIP's Equity Budget for the pilot communities;
- Fully subsidize BTM residential storage up to a cost cap of $11,979 per household;
- Fully subsidize BTM "Community Service Storage" at community centers or schools up to a cost cap of $26,379; and
- Adopt a pilot community-specific income cap, not the existing SGIP Equity Budget income cap.

Parties both supported and raised concerns with the ACR proposal in comments. Regarding BTM storage, PG&E supported use of the SGIP Equity Budget (EB) as part of the pilots but noted several issues that would need to be

addressed to enable this. First, the Commission would need to modify SGIP EB requirements to allow utilities to open and use their SGIP EBs prior to arriving at "Step 3" of their SGIP funds, as currently required. Second, the Commission would need to indicate the allocations to each utility of the proposed $10 million. Third, the Commission should refresh the proposed unit cost caps closer to the project launch date. Fourth, the Commission should require applicants to use the existing SGIP processes to apply for the allocated budgets.[130143]

SCE explained that BTM storage would provide community-level benefits only by participating in a demand response program or time-of-use tariff tailored to specific local circuits, which are not currently available.[131144] CASSA supported increasing the SGIP DAC allocation to the SJV DAC pilot communities.[132145] Sierra Club/NRDC did not support the SGIP approach but rather argued that the pilots should explore least-cost thermal storage capacity provided by HPWH, as this would be "extremely inexpensive" as compared to the ACR's BTM storage proposals.[133146]

TURN observed that the 2016 SGIP program evaluation did not show that batteries subsidized by SGIP incentives were reducing GHG emissions and expressed doubt that storage operated primarily for backup power reliability purposes, as in the ACR, would reduce GHGs. This would happen only if the batteries were additionally programmed to charge to off-peak and discharge on-peak in a regular fashion, which goes beyond reliability purposes, TURN said. TURN proposed limiting storage installations in the SJV pilot to 100 customers selected based on local reliability criteria and/or directing PG&E to improve

[130143] PG&E, Comments on ACR Phase II Pilot Projects," October 15, 2019 at 12.
[131144] SCE, "Comments on ACR," October 19, 2018 at 5.
[132145] The California Solar & Storage Association, "Opening Comments on ACR,"
[133146] Sierra Club/NRDC, "Comments on ACR Phase II Pilot Projects," October 19, 2018.

reliability of the worst circuits in the region.[134][147] TURN also strenuously objected to the CEP Team's proposal to allow households to "redirect electrification funds" for in-home storage.[135][148]

In comments on the ACR's IFM battery proposal, PG&E did not support the proposed community solar plus storage proposal, stating that these configurations "severely limit" the operation of storage assets and the benefits provided.

PG&E recommended that the pilot consider an IFM storage-only approach located in an area beneficial for the grid. They further cautioned that any IFM storage system would be unlikely to mitigate customer outages in Allensworth or Seville, which it describes as due to third-party vehicle impacts and equipment failure. PG&E concludes that BTM storage would best minimize customer impacts from outages.[136][149] CALSSA supported the ACR's proposed community solar plus storage proposal but provided no details.

The ACR proposal outlined a compelling vision and need for improved reliability and resiliency services in the pilot communities. As a Commission, we in principle support and endorse the leveraging of the SGIP program as laid out in the ACR. However, parties raised a range of issues that require additional exploration within the SGIP proceeding because the concerns raised may impact the broader program, not just the SJV pilot communities. We intend to consider the impacts and further details of the ACR's SGIP proposal to R.12-11-005 as quickly as possible.

We also agree with TURN that is it inappropriate for subsidies allocated for the purpose of electrification be utilized towards in-home battery storage. As

[134][147] TURN, "Comments on ACR Proposing Phase II Pilot Projects," October 19, 2018.
[135][148] TURN, "Comments on Updated Pilot Projects," October 1, 2018 at 9.
[136][149] PG&E, Comments on ACR Phase II Pilot Projects," October 15, 2019 at 12.

indicated in Section 11.7, we decline to approve the CEP Team's proposal to subsidize in-home BTM battery storage using funds approved for electrification.

In addition, parties raised significant concerns regarding the ACR's IFM community solar plus storage proposal such that it is premature to approve this approach at this time.

However, as the pilot projects move forward, PG&E, SCE and the electrification PA should continue to study the best and most cost-effective methods to improve reliability in the pilot communities and the SJV more broadly to provide greater reliability and enable customers to have confidence to switch to all-electric. In order to ensure progress is made for communities dealing with lack of reliability, PG&E and SCE shall each provide, via a Tier 1 Pilot Community Reliability Advice Letter, a report analyzing root causes of the outages in the communities in their service territory and timelines for corrective action. Prior to filing this advice letter, SCE, in coordination with PG&E, shall host a workshop to discuss the intended format of the report, and the elements and analysis to be included in the report. Each report shall contain clear metrics and should compare the pilot communities to others in the service territory. It should include overview findings that are accessible to a non-technical audience, since one of the purposes for this report is to support community education about the severity, causes, and intended solutions to local electric reliability issues. For Allensworth, PG&E shall include the causes for the failed line voltage regulator and what remediation PG&E will be investing in and under what time frame in order to ensure reliable electricity service. This Tier 1 Advice Letter and report shall be submitted within 180 days from issuance of this decision. In considering what corrective actions are needed to ensure community reliability, PG&E and SCE should consider what role IFM storage can have and if any of

these pilot communities should be considered for a Distributed Energy Resource Pilot.

13.2. Thermal Storage

As mentioned above, the Sierra Club/NRDC called for greater attention to the thermal storage capacity and flexibility provided by HPWH in response to the ACR's storage proposals and stated that it was reasonable that at least 25 percent of all water heaters installed as part of the pilot should be equipped with controls. One option they recommended is local controls that optimize water-heating operations based on TOU rate schedules without requiring internet connectivity or interactive remote communications. They pointed to a SMUD remote load management electric water heater program as an example of a more sophisticated strategy that could provide energy cost savings through customer bill credits.[~~137~~150]

TURN pointed to studies showing the potential for electric water heaters to provide renewable integration and demand response services without impacting customer comfort or behavior. They lamented that the ACR's proposal, "fails to capture this unique opportunity to test the ability of electric water heaters to function as thermal storage devices." TURN strongly recommended that the Commission require at least 200 water heaters to be equipped with controls as part of the pilot project. The controls should allow for either: (1) dispatchable control of the heating element; or, (2) a preset that would ensure that the heating cycle comes on during the 12:00 p.m. - 4:00 p.m. time-period when solar generation is at its highest.[~~138~~151]

We agree with the Sierra Club/NRDC and TURN. In the pilot communities served by PG&E, SCE and the third-party PA/PI as directed in this

[~~137~~150] Sierra Club/ NRDC, "Comments on ACR Proposal," October 19, 2018 at 5-6.
[~~138~~151] TURN, "Comments on ACR Proposing Phase II Pilot Projects," October 19, 2018 at 9.

Decision, where a heat pump water heater is installed as part of an electrification package, the PAs shall coordinate, where feasible, the installation of local preset controls and/or digital communication technologies as outlined in PG&E's proposed AB 2868 Application (A.) 18-03-001. We approve a target installation level of 150 heat pump hot water heaters to be equipped with these control technologies in each of PG&E and SCE's service territories. Our goal is to leverage the pilot costs and effort of installing new heat pump water heaters in low-income households with the energy management technology (EMT) being proposed within A.18-03-001. Our expectation is that the heat pump water heaters will be funded through this proceeding (or partially via the ESA program) and the EMT. Subsequent dispatch architecture will be funded out of SCE's and PG&E's AB 2868 Energy Storage Investment/Program Proposals.

14. Other Leveraged Programs and Proposed Exemptions

14.1. ESA Rule Exceptions

ESA Program rules preclude any customer with non-IOU gas space heating (including propane) and/or non-IOU sourced water heating from receiving ESA-funded weatherization or water heating measures. SCE and the ACR both proposed an exception to ESA weatherization rules in order to leverage ESA funds for weatherization aspects of the proposed pilots. We find this proposal desirable and reasonable and expand it to include water-heating measures. The purpose of the proposed exception is to avoid arbitrary project complications in which, during the course of a pilot intervention in a household, the Pilot Administrator would have to first install electric appliances and enroll the customer on an all-electric rate before any type of ESA-eligible weatherization or water heating measure could be installed. It is more efficient to allow both

interventions to occur at the same time, or in whatever order is necessary given the implementation situation for that household and pilot project.

To minimize unnecessary complications in the pilot project implementation process, we approve a limited exception to the existing ESA rule (included in the statewide Policy and Procedures Manual approved in D.17-12-009), which requires that a customer be receiving electric heat or electric/natural gas water heating prior to receiving ESA weatherization or water heating measures. The ESA-eligible weatherization and water heating measures provided as part of pilots authorized in this Decision may be funded through the ESA Program even if the participating households receive these measures prior to installation of the appliance or enrollment in the electric rate. We make clear this is a timing exemption only, and the customer must have the qualifying appliances installed within 90 days of the start of the electric rate, or by the conclusion of the pilot project implementation period, whichever comes first.

14.2. Leveraging ESA and Other Programs

We have not yet outlined the process we envision for the PA to leverage ESA and similar program budgets while still ensuring a smooth delivery and comfortable pilot experience for participating households.

Our vision is that the relevant IOU shall coordinate with the PA to ensure smooth, "behind-the-scenes" accounting of ESA funding pursuant to the ESA Program rule exception approved in Section ~~15.1~~45.1 and the timely enrollment of households onto the all-electric rate. In addition, to reduce the number of household visits, truck rolls, and subsequent disruption to residents and, depending on the electrification PA selected, we approve installation of ESA-eligible measures as part of the pilot by contractors that are not currently on contract with the ESA Program. ~~We envision~~Notably, this component does not

preclude the participation of ESA Program contractors in the various pilot efforts, but we direct that a single contractor will install all electrification and weatherization measures (where feasible) in a given community and the households within it. The contractor will then "bill" the requisite programs (ESA, MIDI, etc.) at the current program measure and installation costs. The contractor will also adhere to the installation standards identified in the ESA Program California Installation Standards Manual ~~(colloquially known as the ESA WIS Manual)~~ or other policy manuals (for the MIDI and the mobile home direct install programs, for example.)

We also do not wish to burden the installation contractor or the ~~PA~~PAs with the accounting and funding stream integration processes that this approach will entail. Instead, we direct the IOUs to include in their Bulk Purchasing Joint Tier 1 Information Only advice letter a description of the co-funding arrangement by which installed pilot measures will be paid for by the existing program at current measure and installation cost rate. Similar to the co-funding directives in D.16-11-022 that sought to leverage the ESA Program with the Department of Community Services and Development (CSD) weatherization program, we direct the IOUs to fund these existing ESA, MIDI, or CSI Thermal eligible measures provided by the pilot from the appropriate funding program and budget line items. As mentioned earlier, we authorize that the claimed savings and household treated goals be counted within the programs funding the measures, as long as no-double counting of savings occur, especially for measures relevant to the ESPI. Specifically, ~~the IOUs~~PAs may count any pilot household treated with ESA measures towards their ESA households treated and other programmatic goals and should document this coordination in their annual ESA Program reports.

14.3. Consideration of the Super User Electric Surcharge ~~Exception~~

D.15-07-011, the "Decision on Residential Rate Reform for PG&E, SCE, and SG&E and Transition to Time-of-Use Rates," established a "Super User Electric Surcharge" that would be charged to ratepayers who consume 400% or more of their electric baseline allocation in a billing period (including all-electric ratepayers). This charge went into effect for SCE and PG&E in January 2017. The Super User Charge applies only to tiered rates, not to time-of-use (TOU) rates.

The ACR proposed an exemption from the Super User Charge for the SJV pilot households that transition to all-electric rates but that are not otherwise on TOU rates. In comments responding to the ACR, TURN, CforAT, and SCE oppose the exemption, stating that the need for it in order to ensure bill savings is not substantiated, and that the exemption undermines energy conservation incentives. The Pilot Team supports the exemption, stating that it will help ensure that increased load from fuel switching does not lead to increased energy costs. They also support including education during pilot project implementation to help participating residents understand the behaviors that will assist in further reducing energy bills, furthering an adequate analysis of cost-effectiveness.

~~We find it reasonable~~At this time, we decline to approve the exemption as proposed in the ACR. ~~While parties continue to develop pilot bill protection details as described above, this limited, targeted exemption to the SUE will provide certainty about one element of the several approaches that will be deployed to ensure that the pilot s do not increase participants' energy costs. Providing this limited exemption to the Super User Charge is also, in itself, a way to gather data about the different aspects of the pilot relevant to the larger group of 178 SJV communities and may inform whether a broader exemption is~~

~~necessary in Phase III~~However, as described elsewhere in our discussion of the larger bill protection issues, this exemption should be considered in that workshop process.

~~The Super User Charge SJV DAC Pilot exemption can be implemented the same way as other pilots that include specific rate characteristics, like the TOU pilots – through special pilot rates created for participants. We direct PG&E and SCE to include in their Tier 2 Bill Protection and Affordability Advice Letters a special pilot electric rate for the communities receiving electrification pilots. This pilot rate for each of the pilots shall explicitly waive the Super User Charge for the participating tiered customers and should specify an appropriate all-electric baseline allowance. This allowance should be modelled on real-world usage characteristics for households located in hot climate zones with large air-conditioning loads and high electric heating winter loads. The Advice Letter also should state any additional discount the participants are eligible for as part of the applicable pilot. Barring this modification, the pilot rate should otherwise be the same as the otherwise applicable tariff. These Tier 2 Bill Protection and Affordability Advice Letters must be filed within 45 days of the Bill Protection workshop.~~

15. Pilot Data Gathering, Evaluation and Reporting

In advance of this Decision, the Commission released D.18-08-019, the Decision Approving Data Gathering Plan in San Joaquin Valley Disadvantaged Communities, that, among other things:

- Approves a competitive request for proposal process to select a single contractor, managed by PG&E;
- Directs PG&E to establish a Data Plan Working Group, to manage all Data Plan Working Group logistical and administrative functions, to co-chair the Data Plan Working Group with a ratepayer advocate and a community-based

non-profit, and to ensure a meaningful community voice in development of the data gathering process;

- Approves Data Gathering Plan data elements and methods, including mail and phone surveys, in-home and group interviews, and coordination with authorized Track A pilot projects;
- Approves Data Gathering Plan deliverables, including a database containing aggregated and anonymized data, summary statistics, an initial summary memorandum, a workshop to discuss this, and a final, comprehensive summary report;
- Establishes a budget cap for the Data Gathering Plan and requires PG&E to submit a Tier 2 or Tier 3 Advice Letter containing a detailed Data Gathering Plan budget within 60 days of issuance of this decision. Directs PG&E to submit a Tier 3 advice letter for any budget proposal that exceeds $3 million up to $6 million; and
- Authorizes cost recovery via Public Purpose Program charges and requires PG&E, SCE and SoCalGas to submit a Tier 2 advice letter with recommended approaches to implement these charges within 60 days of issuance of ~~this~~that decision.

In response to D18-08-019, the IOUs, Cal Advocates, SHE and Energy Division have initiated the SJV Data Gathering Working Group. The working group has developed a draft statement of work that will inform the PG&E-held RFP to solicit an independent Data Plan Contractor. Integral to both the RFP and the statement of work is the implicit coordination between the Contractor and pilot project administrators. Specifically, D.18-08-019 envisions that any Data Plan data collection in the communities where pilots are being deployed should, to the extent possible, be collected by or in close coordination with pilot project implementers specific to any given community. D.18-08-019 directs the Contractor to develop universal data collection instruments and forms for use by

pilot project implementers. This will enable the efforts to coordinate resources and maximize the value of the data collection that occurs during both Track A (Pilot Implementation) and Track B (Data Gathering on all SJV DACs). These data will be used for the economic feasibility study in Phase III of the proceeding. As needed and possible, data gathered through Track A pilots may also be used to refine initial Data Plan grouping criteria approved in D.18-08-019.

It is our expectation that the Data Plan Contractor and the PAs will work hand-in-hand to develop data collection forms for use by PIs (and/or associated CENs or CEN Program Managers), and protocol by which Data Gathering Plan data is collected, stored and transmitted. However, the Data Gathering Plan is not fully inclusive of all of the data that approved pilot projects will gather. For instance, SCE's proposed pilot evaluation plan would support, but is different from, the Data Gathering Plan approved in D.18-08-019. ~~Its~~ SCE's proposed pilot data gathering activities would focus on pre-treatment data on energy usage, current conditions, attitudes and community and market data. The CEP Team's proposal also indicated their intent to collect customer-originated data on home baseline conditions, including all data required to fulfill its proposed reporting metrics, which include a wide range of issues from options chosen and bill impacts, costs, participant experience, workforce training, and pollutant impacts. The CEP Team also proposed to develop a robust, secure database to track and store SJV DAC participant data.

PG&E proposed a pilot evaluation plan that prioritized collection and analysis of the following data: (1) households that participate or do not participate, and why; (2) baseline energy usage and household characteristics; and, (3) costs, energy usage and bill impacts; and, (4) non-energy benefits. PG&E proposed that pilot data collection and analysis activities include: (1) general

data collection and reporting; (2) customer impacts analysis, including energy usage and bill impacts, program satisfaction and customer perceptions and awareness surveys; (3) database development; and, (4) a process evaluation that focuses on program delivery and provides recommendations on how this might be improved. PG&E proposed the initial following metrics of success for the pilot projects: (a) cost impact to DAC residences; (b) community engagement/support; (c) design and implementation costs; and (d) reduction in GHGs and criteria pollutants.[~~139~~152]

We approve a Pilot Evaluation Plan for each PA and for each approved pilot ~~evaluation plan~~ that starts with but then builds on PG&E's proposal ~~and adds some points~~, adding the research questions and metrics suggested by the CEP Team, SCE, SoCalGas and other parties~~. Specifically, we approve use of PG&E's proposed evaluation plan approach and key metrics, modified as necessary to reflect other PAs' pilots, and direct all PA/PIs~~, as appropriate. As part of this, we direct all PAs to collect data on workforce training and local hire outcomes, as suggested by the CEP Team~~.~~ and as added to by Brightline Defense Project, to the extent possible, specifically regarding local hiring results, work hours, the type of work conducted, demographic and certification and/or licensing information.[153]

We ~~also~~ direct the ~~IOUs~~PAs to ~~include~~coordinate to develop updated pilot objectives, research questions and metrics that are as consistent as possible across all PAs and all approved pilots and to include these in their Pilot Implementation Plan Advice Letter~~, required by this decision~~ as part of or alongside their updated Pilot Evaluation Plans. When updating these factors, the ~~IOUs~~PAs shall start from the objectives, research questions and metrics included in their

[~~139~~152] PG&E, "Updated Pilot Proposal," September 10, 2018 at 49-56.
[153] Brightline Defense Project, "Opening Comments on Proposed Decision," November 29, 2018.

approved pilot proposals and those provided in this decision. The ~~IOUs~~PAs shall in their Pilot Implementation Plans clearly present these elements based on the example provided in Appendix A~~. Appendix A~~, which provides an initial template to clearly map pilot objectives, to research questions, and finally, to reporting metrics.[~~140~~154] The purpose of the Pilot Evaluation Plans to be included in the Pilot Implementation Plans is for each PA to set forth its specific plans to collect and analyze pilot data to assess pilot effectiveness against its approved objectives, research questions and metrics. We direct PAs to utilize their proposed EMV& budget for this task and/or, particularly if this has not been specified, to allocate up to four percent of their total approved budget for data gathering and their associated Pilot Evaluation Plan..

~~Subsequently,~~We also direct the ~~PA/PIs are directed~~PAs to collaborate with each other and with the Data Plan Contractor, the Data Gathering Plan Working Group directed in D.18-08-019, and~~, if feasible, a separate~~ the pilot process evaluation contractor, to ~~develop~~the extent feasible, to ensure that final pilot ~~reporting~~evaluation metrics are as consistent as possible across all ~~pilot communities~~PAs and all approved pilots. We direct the PAs and the additional entities to also collaborate to develop pilot ~~reporting~~evaluation metrics that are unique to specific communities and/or intervention approaches ~~to measure each pilot project's success against goals specific to one or more communities or approaches. We direct the PAs and additional entities to utilize objectives, research questions and metrics provided in the Pilot Implementation Plan Advice Letters as indicated above, and to consider Appendix A as a starting point for reporting metrics that are consistent across all pilot projects. Final pilot~~

[~~140~~154] Once the third -party PA has been chosen and is under contract for the non-IOU PA pilots an updated Pilot Implementation Plan Advice Letter will be submitted by the third party PA within 45 days after the contract is executed.

~~reporting~~, as needed. Final pilot evaluation metrics must measure and communicate pilot impacts, not just document high-level statistics or provide simple counts.[141][155] ~~Approved PA/PIs will~~We direct the PAs to collect~~,~~ and report on all final pilot ~~reporting metrics.~~evaluation metrics in individual PA Pilot Evaluation Reports, which each PA shall serve and file to the service list of R.15-03-010 no more than 180 days following the PA's collection of one year's billing data for participating households in each of their approved pilot communities, unless the Energy Division Director approves a different date.

In addition, we agree with PG&E that an additional best practice method to measure the effectiveness of a pilot is to undertake a process evaluation, typically following the intervention period. The typical purpose of a process evaluation is to determine the overall effectiveness of the processes used by a program or project, and to provide actionable recommendations for improved future program or project design and delivery. Process evaluations also typically also document barriers and may provide some basis to determine the success of the program or PA in meeting the goals outlined in its Pilot Implementation Plan.

We agree that a process evaluation is necessary and approve a process evaluation of both electrification and natural gas pilots, which may be evaluated collectively, or separately as needed. SCE proposed to contract with a third party to implement a process evaluation of the pilot. PG&E's proposal is largely silent on this question. Commission experience with demand side program ~~evaluation, measurement and verification (EM&V)~~EM&V oversight has shown that employing an independent evaluator is critical to providing unbiased findings. Furthermore, employing a competitive solicitation, overseen by Commission

[141][155] IOUs have substantial experience in developing meaningful metrics as evidenced in the adoption of Common Metrics for Energy Efficiency Business Plans in D.18-05-041.

Energy Division Staff, will ensure that this evaluation is awarded without bias to pilot project design.

To ensure that the lessons learned from the SJV DAC pilots have the broadest reach and value to ratepayers, the SJV DAC process evaluation research plan scope shall include activities funded by the budgets authorized in this decision as well as those funded through leveraged programs discussed above. Key aspects of the process evaluation, including the draft research plan, shall likewise be distributed to current service lists for leveraged program proceedings for review and comment. Stakeholder input will be considered and acted on, where warranted. The process evaluation shall avoid unnecessary duplication of data gathering, analysis and reporting to be conducted by each approved PA, according to their own Pilot Evaluation Plan, as directed above. We anticipate that lessons from the SJV DAC pilots, particularly the electrification pilots, will help inform our forthcoming ~~electrification~~ efforts resulting from the passage of SB 1477 (Stern 2018),[~~142~~156] which orders the Commission to develop and supervise the administration of two programs targeted towards the deployment of

[~~142~~156] SB 1477 was approved by the Governor and filed with the Secretary of State of September 13, 2018. This provision of law establishes two (2) new programs aimed a decarbonizing the state's building sector. The first program is the Building Initiative for Low-Emissions Development (BUILD) and the second is the Technology and Equipment for Clean Heating (TECH) initiative which will be overseen by the Commission in consultation with the CEC to reduce GHG emissions.[⊥]
The BUILD Program will provide financial incentives for the deployment by gas corporations of near zero-emission building technologies aimed at reducing building GHG emission below what they otherwise would be following the CEC building energy efficiency standards. The program also sets aside 30 percent of BUILD funds for low-income residential housing in DACs and directs the Commission to ensure such projects receive technical assistance and higher incentives than do other new residential buildings and ~~no~~do not increase utility bills for building occupants.[⊥]
The TECH Initiative provides incentives for gas corporations to develop markets for low-emission space, and water heating equipment for new and existing residential equipment. Beginning in fiscal year 2019 through fiscal year 2023 the Commission is to annually allocate $50 million to fund the BUILD Program and TECH Initiative pursuant to Pub. Util. Code § 748.6.

near-zero emission building ~~electrification. PA/PI~~technologies. The PAs should also explore whether the BUILD Program and/or TECH Initiative can be leveraged to meet pilot goals.[~~143~~157]

We direct SoCalGas to manage the RFP to support the selection of a process evaluation consultant through an RFP selection process and to manage the RFP process on the Commission's behalf. This will assist in expediting the process. As with the PA/PI RFP selection process, Commission Energy Division staff will play a central role in developing the process evaluation RFP and will make the final decision on the winning bidder. SoCalGas will conclude the RFP process and sign a contract with the chosen Process Evaluation Consultant no later than April 30, 2019, unless a different date is determined through a letter from the Commission's Energy Division. Energy Division will serve notice of the release of the RFP and of the winning bidder on the service list for this proceeding and SoCalGas shall release the RFP through its traditional contracting venues.

We direct the IOUs to develop, and file, within 90 days of this Decision, a joint Tier 1 Pilot Evaluation, CEN and EFF Cost Sharing advice letter containing a co-funding agreement that specifies the cost-sharing schema for this RFP. Using past budgets for Process Evaluations (*See* ESA Decision (D.) 08-11-031) we specify a "not to exceed" budget amount of $250,000 for this study.

We also find that it will be useful to the Commission, residents of the pilot host communities and parties to R.15-03-010 for the IOU PAs to provide periodic updates during the pilot project implementation and evaluation period. To accomplish this, we direct PG&E, SCE and SoCalGas to each serve and file

[~~143~~157] We will also consider how the BUILD Program and TECH Initiative may contribute to the feasibility of providing affordable clean energy options to the remaining SJV DAC listed communities in Phase III of the proceeding.

reports detailing their efforts to engage SJV DACs, including progress in implementation of the pilot projects approved in this decision. The reports shall include information on the other Commission programs that could be leveraged in implementing the pilots. The report shall also address how each program has been leveraged to implement the eleven pilot projects authorized in this decision, or if not leveraged the barriers or basis for not utilizing the program, within one year of issuance of this decision, and annually thereafter. The IOUs may coordinate with each other and the Commission's Energy Division to ensure consistency in scope and format of the reports.

To reach the pilot project host communities, the Commission will coordinate with parties, other stakeholders, and the Commission's Public Advisor's Office, to hold a minimum of three community-based workshops during the pilot project implementation period at selected communities to provide a summary of progress on implementation of the eleven pilot projects, lessons learned, and barriers to implementation of the pilot projects.

16. Cost Recovery

This decision approves $~~32,712,688~~35,410,448 in new funding for PG&E[158] to undertake its approved pilots and to contract with a third-party PA/PI. It approves ~~"$14,910,709~~$15,411,008 in new funds for SCE and $~~5,617,700~~5,591,100 in new funds for SoCalGas ~~(*see* Section 10).~~ to implement their approved pilot projects (*see* Section 10). This decision also approves an amount not to exceed $750,000 total for the three IOUs together to fund an independent process evaluation of the pilots (*see* Section 15) and expert consultant support to develop

[158] We recognize that if SoCalGas files a notice within 60 days of issuance of this decision demonstrating that the gap funding for the gas pilots for Allensworth and/or Seville has been satisfied the allocation of funds for the electrification projects for one or both of these communities will be transferred to SoCalGas for recovery rather than recovered by PG&E. Therefore, it is critical that the notice if filed be done so as soon as possible.

recommendations on an Economic Feasibility Framework (*see* Section 17), and an additional $250,000 for PG&E to continue to conduct a Feasibility Assessment of its MPT proposal.

The decision directs the IOU and third-party PAs to work diligently to fully enroll all eligible households in the pilot communities into CARE, FERA and/or Medical Baseline rates and to work diligently during the pilot period to serve all ESA- and MIDI-eligible (for PG&E only) households in the pilot communities. Section 14.2 provides specific direction on the method by which the IOUs and the third-party PA must leverage ESA, MIDI, CSI Solar Thermal and other program funds to support the pilots.

~~This decision also approves an amount not to exceed $750,000 total for the three IOUs together to fund an independent process evaluation of the pilots (*see* Section 15) and expert consultant support to develop recommendations on an Economic Feasibility Framework (*see* Section 17).~~

Regarding the method of cost recovery for the pilot budgets approved in this decision, SoCalGas and PG&E~~'s~~ request use of two-way balancing accounts. However, TURN and Cal Advocates have noted that the proposed pilots' unit cost estimates are "extremely uncertain" and "any budget adopted based on those forecasts is likely to be quite speculative."~~144~~159 TURN and Cal Advocates therefore recommend that the Commission control pilot costs by adopting a total pilot budget cap with a one-way balancing account recovered through Public Purpose Program (PPP) charges over two-three years. ~~Cal Advocates argues all~~160 SoCalGas indicated that its to-the-meter (TTM) costs should be treated as

~~144~~159 TURN, "Comments on Updated Pilots," October 1, 2018 at 17.
160 Cal Advocates, "Comments on the ACR's Proposed Phase II Pilots," October 19, 2018.

~~expenses.[145]~~capital costs according to Commission practice and numerous decisions.[161]

We concur with TURN and Cal Advocates' that use of a one-way balancing account is the best method to ensure that pilot budgets are limited to the approved costs. The SJV DAC pilots are exploring new potential approaches that the Commission may consider extending to the remaining 167 SJV DACs in Phase III of this proceeding. It is reasonable that the IOUs recover pilot costs via PPP surcharges. We direct SCE, SoCalGas and PG&E to ~~each~~file a Tier 1 advice letter within 45 days from issuance of this decision to establish one-way balancing accounts to ~~record and recover costs stemming from the budgets~~track the non-leveraged costs of pilot projects against the costs and budget as approved in this decision over a period of three years using the appropriate rate design methodology approved for recovery of its non-CARE Public Purpose Program costs. Recovery shall take place over a three-year period. PG&E and SCE shall treat all pilot costs ~~shall be treated~~ as expenses. However, we stress that including the capital expenditure treatment as expense for these pilots does not set a precedent for the future.

We concur with SoCalGas's comments regarding TTM costs and direct it to file a Tier 1 advice letter within 45 days from issuance of this decision to establish a one-way balancing account with two subaccounts. One subaccount will be used to record the revenue requirement associated with all TTM costs that will be recovered in transportation rates until the TTM costs are rolled into base rates in connection with SoCalGas' General Rate Case. The second subaccount will track beyond-the-meter, non-leveraged pilot costs and will be recovered in Public Purpose Program surcharge rates.

~~[145] Cal Advocates~~[161] SoCalGas, "Comments on ~~the ACR's~~ Proposed ~~Phase II Pilots," October 19,~~Decision," November 29, 2018.

In addition, TURN, asserted that if average costs start trending significantly above forecasts, PAs would need to either modify the program to reduce the number of appliances available per household or reduce the number of upgraded households. TURN states that ~~this~~reducing the scope of work of the approved pilots approach is the most practical way to address the inevitable tension between conducting the amount of work forecast and staying within budget~~.~~[146], and that authorizing a Tier 3 advice letter for IOUs to request additional funds under "limited conditions" will lead to fruitless debates over what are "unforeseen costs" and "costs exceeding forecasts."[162]

Cal Advocates, CforAT and the Pilot Team expressed concerns about work in homes halting prematurely or suddenly due to a lack of funds.[147][163] Cal Advocates proposed that the Commission address cost uncertainties by authorizing PAs to file a Tier 3 advice letter to request an increase in the budget cap, should they encounter "unforeseen costs." The advice letters, recommended by Cal Advocates, would describe the nature of the unforeseen costs, detail the associated costs, explain why the unforeseen costs cannot be recovered by previously authorized contingency funds, and provide a detailed budget update for each pilot. The PAs would also show why it is not possible to successfully complete the project within the authorized budget by managing costs or reallocating funds (such as reducing overhead costs or requiring contractors to share the risk of cost over-runs).[148][164]

We agree that, for ~~electrification~~the pilots, a reasonable method is needed to address cost uncertainties and avoid a sudden halt to work in any home or

[146][162] TURN, "Comments on Proposed Decision," November 29, 2018; TURN, "Comments on the ACR's Proposed Phase II Pilots," October 19, 2018 at 14.

[147][163] CforAT, "Comments on ACR Proposing Pilot Projects," October 19, 2018 at 11; Pilot Team, "Comments on ACR Proposing Pilot Projects," October 19, 2018.

[148][164] Cal Advocates, "Opening Comments on the Updated Pilot Projects," October 1, 2018 at 4.

community. Unanticipated delays or work stoppage would undermine the pilot's success and community trust. We agree with Cal Advocates that review and approval of any additional funds beyond the pilot budgets authorized in this decision is required. We direct PG&E, SCE and SoCalGas and the third-party PA/PI to make every effort to control costs and to treat the forecast number of homes with the approved budgets. ~~However, should~~

We decline, however, to authorize a Tier 3 advice letter as recommended by Cal Advocates. We have been persuaded by TURN's comments on the PD that this would not sufficiently allow for containing costs.[165] If early stages of pilot implementation indicate that a PA's average costs are trending significantly higher than forecast, ~~and/or identify "unforeseen costs," we authorize PG&E and SCE to file a Tier 3 Budget Authority Increase advice letter as recommended by Cal Advocates. We do not extend this same option to SoCalGas, due to concerns about escalating costs for pipeline extensions raised by parties.[149]~~ the PA should reduce the scope of work of its approved pilots, seeking guidance from Commission staff on the most appropriate method to do so. To the extent that a PA feels it is necessary to request additional budget authority for its approved pilots, it shall do so through filing a petition for modification of this decision.

17. Economic Feasibility White Paper and Workshops

The August 8, 2018 ALJ Ruling stated that, "we intend to establish an Economic Feasibility Framework (EFF) Working Group that can continue the work of the parties on the Joint Economic Feasibility Standard." The ALJ Ruling suggested that the working group could assess cost-effectiveness tests including those used to assess the cost-effectiveness of fuel-switching, undertake

[165] TURN, "Comments on the Proposed Decision," November 29, 2018.

~~[149] To the extent the SoCalGas pilots go over budget, SoCalGas will need to file a petition to modify in order to seek additional funds for the natural gas pilots.~~

coordination with related proceedings, and report bi-yearly on its activities and provide recommendations as feasible.[150][166]

All parties supported continuing work to develop an EFF. The Sierra Club/NRDC, TURN, SCE and Cal Advocates suggested that the Commission's Energy Division lead the process to develop an EFF. Sierra Club/NRDC and Cal Advocates recommended that Commission Energy Division staff kick off the process by preparing a straw proposal or white paper for discussion at a workshop.[151][167]

Cal Advocates opposed convening an EFF Working Group, stating that the "range of issues to be considered is not sufficiently defined," which would make it difficult for such a group to reach consensus.[152][168] PG&E likewise stressed the need for a clearly articulated working group charter.[153][169] TURN recommended that utility experts on existing cost-effectiveness tests participate in the group to ensure its productivity, particularly those with knowledge of the ESA Program Cost Effectiveness Test (ESACET). TURN and SCE recommended that the Commission consider hiring an outside consult with expertise on the current tests.

Greenlining and the Pilot Team also supported an EFF working group, stressing the need to take a holistic view and give full consideration to qualitative, or non-energy benefits (NEBs), particularly participant NEBs.[154][170] TURN recommended a focus on participant costs and benefits, ratepayer costs and quantifiable societal costs and benefits, such as GHG emission

[150][166] ALJ Ruling Requesting Parties Response to Ruling Questions, Providing Guidance on Pilot Project Updates, Updating Proceeding Schedule, Entering Documents into the Record, and Providing Additional Guidance to Specific Parties," August 3, 2018 at 8.
[151][167] Sierra Club/NRDC, "Reply Comments on ALJ Ruling Questions," October 1, 2018.
[152][168] Cal Advocates, "Comments on ALJ Ruling Questions," September 10, 2018 at 24.
[153][169] PG&E, "Comments on ALJ Ruling Questions," September 10, 2018 at 11.
[154][170] The Pilot Team, "Responses to ALJ Ruling Questions," September 10, 2018 at 28; Greenlining, "Comments on ALJ Ruling Questions," September 10, 2018 at 13.

reductions.[155171] TURN and SCE recommended that parties to R.15-03-010 consider ESA Program proceeding work on NEBs to avoid duplication of efforts.[156172]

SoCalGas supported the creation of an EFF Working Group and argued that its scope should include the ratepayer impact measure test (RIM). SoCalGas recommended that SJV DACs be categorized as "load building" according to the California Standard Practice Manual (SPM).[157173]

Parties to this proceeding have worked diligently on cost-effectiveness issues during Phase II of this proceeding as illustrated in the "Joint Proposal Addressing Economic Feasibility Standards for Pilot Projects" (Joint Proposal), filed on July 19, 2018 by ten parties. This was a time-consuming endeavor and while the parties indicated significant progress, they were unable to reach a consensus recommendation. The filing identified consensus and non-consensus issues.[158174]

[155171] TURN, "Responses to ALJ Ruling Questions," September 10, 2018 at 17-18.

[156172] D.16-11-022 directed PG&E, SCE, SoCalGas and San Diego Gas & Electric Company (SDG&E) (collectively "Utilities") to study NEBS and to provide non-Utility parties opportunities to review and comment on the draft study work plan and draft study deliverables. The objectives of the ESA NEB study are to: (1) Review and update the current set of ESA NEBs; (2) Evaluate which NEBs can be estimated directly and which can be a function of energy savings or an alternate adder; (3) Review and assess previous ESA evaluation results as they relate to NEBs; (4) Recommend any missing NEBs or negative non-energy impacts; (5) Provide a set of calculations in a workbook that can replace the current workbook used to calculate NEBs and be easily updated in future program cycles; (6) Include sensitivity analysis around the calculations; (7) Recommend an allocation method for NEBs and administrative costs to the measure level; and, (8) Recommend an approach for updating NEBs in the future. D.16-11-022 at 218; ESA Cost-Effectiveness Working Group report, distributed to parties to A.14-11-007 et. al. on June 13, 2018.

[157173] SoCalGas, "Comments on ALJ Ruling Questions," September 10, 2018 at 18.

[158174] SCE filed the on behalf of itself, the Greenlining Institute, GRID Alternatives, ORA (now Cal Advocates), NRDC, PG&E, the Pilot Team, the Sierra Club, SoCalGas and TURN. The joint filing was in response to a June 6, 2018 "ALJs' Ruling Requiring Joint Proposal Addressing Economic Feasibility Standards for Pilot Projects and Workshop to Discuss the Joint Proposal."

Given significant party efforts to come to agreements on an Economic Feasibility Framework we are sympathetic to Cal Advocates' and other parties' concerns that the proposed scope of a working group may not be sufficiently clear, and moreover, that a neutral entity, such as Commission Energy Division staff or a contracted consultant, should facilitate and oversee any process. A neutral facilitator supported by a technical expert will help advance party agreement and can more clearly identify areas of consensus, disagreement and methods to move forward. We agree with the parties that advocated that Commission Energy Division facilitate future efforts to develop an EFF and that staff obtain technical support, if needed, via contracting.

We therefore decline to establish a dedicated EFF Working Group at this time. Instead, we direct SCE to issue an RFP for a contract with an expert technical entity to develop recommendations related to an Economic Feasibility Framework for this proceeding. Energy Division staff will draft the Scope of Work and substantively oversee the contract, with the utility serving as the contracting/fiscal agent. The contracted expert entity should be highly knowledgeable about existing Commission cost-effectiveness tests and processes. Division staff will serve a proposed Scope of Work to the service list of R.15-03-010 and consider informal party input prior to releasing an RFP.

Commission staff should work with the contracted technical expert to develop a white paper/straw proposal that addresses the following requirements:

1. What are the pros and cons of adapting cost-effectiveness tests used in other Commission proceedings or identified in the SPM for use in this proceeding?
2. Should one or more new cost-effectiveness test be developed for this proceeding, or should one or more be

adapted from another proceeding(s)? Please describe the basis for the recommendation, and if a "new" test, describe.

3. How should "fuel switching" or "load building" be addressed in the recommended test(s)?
4. Does data exist, or is data currently being gathered in the pilots or Data Gathering Plan, to inform all of the cost and benefit categories ("factors") of the recommended test(s)? If not, please identify data gaps and elements to consider regarding remedying existing data gaps.
5. Does the ESA Program proceeding NEB's Study provide a model for treatment of NEBs in R.15-03-010, with or without modifications? What are other options for qualitative or non-energy benefits to be considered in the proposed test(s), and the pros and cons of various approaches, including data availability?
6. Provide any additional information or recommendations to address areas of non-consensus identified in the Joint Proposal and/or to support development of an economic feasibility framework and/or cost-effectiveness test(s) for this proceeding.

Commission staff should endeavor to make a draft of its proposal available within four months after the contract with the consultant begins. The draft proposal will be served on the service list for this proceeding, and additional proceedings that may have overlapping interests[~~159~~175] and Commission Energy Division staff or the consultant will convene one or more informal workshop(s) to obtain party input. As part of developing the draft proposal, Commission Energy Division staff may, informally consult with interested parties. Phase III of this proceeding will then formally consider and take comment on the White Paper/Straw Proposal and convene additional workshops as needed.

[~~159~~175] The proposal may be served on the service lists for proceedings R.12-11-005, R.12-06-013, A.14-11-007 and R.14-07-002, or subsequent proceedings on similar subject matter for programs that have been listed as possible leveraging sources for funding pilots.

PG&E, SCE and SoCalGas shall each allocate 33% of the funding for this contracting process, or $133,333 each. PG&E, SCE and SoCalGas are authorized to recover these costs via the PPP surcharge authorized in Section 16 above.

19. Comments on Proposed Decision

The proposed decision of the ALJs in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.2 of the Commission's Rules of Practice and Procedure. Comments were filed on ~~_____, and~~November 29, 2018 by the Pilot Team, Greenlining Institute, CforAT, Sierra Club / NRDC, EDF, Cal Advocates, SoCalGas, SCE, PG&E, TURN, Brightline Defense, GRID, CUE, Sunrun Inc., and CSSA. SCE, Cal Advocates, the Pilot Team, TURN, SoCalGas, PG&E, and GRID filed reply comments ~~were filed on _____ by _____.~~on December 4, 2018.

Rule 14.3 requires that comments "focus on factual, legal or technical errors in the proposed or alternate decision and in citing such errors shall make specific references to the record or applicable law. Comments which fail to do so will be accorded no weight." We give no weight to comments that do not comply with this rule.

To the extent required, revisions have been incorporated herein to reflect the substance of these comments. Technical corrections identifying typographical, grammatical, and other miscellaneous errors have been corrected in this decision.

Cal Advocates raises concerns regarding narrowing the scope of the proceeding to consideration of a limited number of the listed SJV DACs for hosting potential pilot projects. Parties were directed prior to adoption of the scoping memo to provide recommendations as to the process and potential

communities that should be considered for pilot projects within the scope of Phase II Track A. The assigned Commissioner, after considering all the party comments provided, consistent with Pub. Util. Code § 1701.1(b)(1) and Rule 7.3 issued a scoping memo that included consideration of all twelve (12) of the communities recommended by parties.

All parties had sufficient opportunity to recommend SJV DAC communities for consideration as host pilot communities. While not all parties agreed with the approach of moving forward with examination of how to implement pilots within these 12 communities, all parties had an opportunity to provide comments, reply comments, raise concerns at two prehearing conferences, and recommend or oppose any specific host communities. Cal Advocates had sufficient opportunity to provide comment, confer with other parties,[176] and respond to other parties' comments throughout the proceeding, including up through its comments on the proposed decision. These comments were fully considered along with the voluminous record and numerous sets of comments from all parties that were filed both before and after the issuance of the scoping memo. After careful consideration the Commission through adoption of this decision has determined it will adopt 11 of the 12 proposed pilots.

[176] A workshop facilitated by the Pilot Team was held on July 26, 2017 specifically to address how to move forward with pilots, and which communities should be recommended to host such pilots. The pilot team in its response to Cal Advocates data requests specifically states that the information sought regarding why it recommended these communities was specifically addressed during the workshop and is set out in its subsequent filings recommending the 11 communities. We also note that Cal Advocates played a significant role in gathering data and setting criteria as to which communities would qualify to be on the list of SJV DACs. The argument presented by Cal PA as to replicability of the pilots adopted here is not convincing. We find that the real time data gathered through the pilots approved here and the data gathering plan adopted in August 2018 by Commission will provide valuable data for moving forward effectively with the overall economic feasibility study for all listed SJV DACs.

Parties including the Pilot Team, Greenlining, GRID and CforAT provided significant comment on the PD's bill protection approach. GRID argued that the method to calculate likely bill impacts had limitations in that it only considered average estimated household bills rather than a range of bills and that this limited the ability to project the range of impacts. CforAT requested clarification on the $500 budget allocation. The Pilot Team argued that pilot households may not support the pilots without assurances that they "will produce bill savings," and that such disengagement would hinder the overall effort. They disputed the PD's finding that it was "premature" to approve the ACR's proposed 20-year, 20% bill discount and stated that this approach was appropriate as it considered the "rebound" effect that participating pilot households may experience.[177]

Similarly, PG&E and SCE argued that the PD's approval of a "pilot rate" that waived existing "Super User" charges was unnecessary because a range of rate options exist, very few pilot households would likely experience Super User charges, and existing all-electric baselines are sufficiently high for most households. PG&E argued that an extremely large number of bill system modifications are already planned for the next two years, and the proposed pilot rate may not be a priority. PG&E also stated that, "an accurate cost comparison would need to consider the overall costs that a DAC Pilot customer would see when switching from a fuel source like propane to electricity. While the customer's electric bill would increase, its alternative fuel bill would be eliminated."[178] Both PG&E and SCE stated that implementing the proposed pilot rate would incur additional manual billing costs that were unwarranted. SCE

[177] Pilot Team, "Opening Comments on Proposed Decision on Disadvantaged Communities Pilots," November 29, 2018 at 3; GRID, "Opening Comments on Proposed Decision," November 29, 2019.

[178] PG&E, "Opening Comments on Proposed Decision Approving Disadvantaged Communities Pilot Projects," November 29, 2018 at 12.

stated that an "Essential Usage Study," will inform future rate design for the SVJ area.[179]

Based on these comments, the final decision clarifies bill protection requirements here and in Section 11.2. We agree with PG&E that the appropriate method to estimate the pilot's impacts on customer costs is a pre- and post- pilot implementation comparison of total energy costs, including propane (and wood) and electric and/or natural gas bill costs not simply changes in electric (or natural gas) bills. We concur with GRID that estimating bill impacts based on average costs may not reflect the full range of bill impacts that customers will experience based on their individual household circumstances, and that a bill protection approach should account for this uncertainty. We agree with the Pilot Team that the approved bill protection approach should appropriately account for rebound effects. Additionally, we agree with the more detailed information provided in PG&E and SCE's comments on the Super User charge and therefore the final decision does not require PG&E and SCE to develop a pilot tariff nor to exempt all pilot households from the Super User Electric Surcharge. Instead, the IOUs may consider this charge in their bill protection approach, as outlined in Section 11.2 and below.

In response to the Pilot Team's comments, we clarify that we direct the IOUs and PAs to work to ensure that households receiving appliance upgrades through the pilot experience energy cost savings, based on comparing the full range of pre- and post- pilot implementation energy costs. The final bill protection approach will reflect this goal. Section 11.2 further clarifies Commission expectations for the bill protection workshop and advice letters approved in this decision.

[179] SCE, "Opening Comments on PD," November 29, 2018 at 8-9.

TURN and CforAT strongly objected to the PD's authorization of SCE and PG&E to file a Tier 3 advice letter to request additional budget authority under limited conditions.[180] TURN stated that, "it is extremely likely that the proposed advice letter process will cause the utilities to proceed as if there were a two-way balancing account," and that the process set forth in the PD, "will allow utilities to collect any and all cost overruns." TURN recommends that the pilot budgets be fixed and that, "utilities be authorized to reduce the scope of work if unit costs start trending significantly higher than forecast." [181] We find TURN's arguments persuasive and we eliminate the option for SCE and PG&E to file Tier 3 advice letters to request additional budget authority. Instead, we direct in Section 16 that the PAs reduce the scope of work of the pilots if costs greatly exceed forecast costs, in consultation with Commission staff, and that a PA must file a petition for modification if it wishes to seek additional budget authority.

SCE and PG&E also requested the flexibility to fund shift between administrative, EM&V and ME&O cost categories in their PD comments, which would be collectively capped at 20% of non-contingency programmatic funds, stating that this would assist in implementing the complex and largely new pilot approaches.[182] We found this request reasonable and granted it in Section 9, while retaining our previous five percent reduction of PG&E and SCE's administrative costs. SoCalGas requested correction to an error in the PD that had omitted to approve treatment as capital costs its "to-the-meter" costs.[183] We have made this correction in Section 16.

[180] CforAT, "Comments on Proposed Decision," November 29, 2018 at 10.
[181] TURN, "Comments on Proposed Decision," November 29, 2018 at 8.
[182] PG&E, "Comments on Proposed Decision," November 29, 2018; SCE, "Comments on Proposed Decision," November 29, 2018.
[183] SoCalGas, "Comments on Proposed Decision," November 29, 2018.

PG&E and GRID's opening comments on the PD identified discrepancies within the CARE Eligibility Table 1. PG&E and GRID stated that that CARE eligibility rates for the pilot communities in the PD were incorrect, as PG&E had provided updated estimates in its Revised Proposal.[184] The final decision contains the updated estimates. In addition, we have corrected errors in Table 25 regarding the estimated numbers of households lacking natural gas in Allensworth, Alpaugh, Lanare, and Seville, based on the IOUs' and the CEP Team's Revised Pilot Proposals and Pilot Team comments on the PD.[185] Based on these corrected estimates of households lacking natural gas and GRID and the Pilot Team's comments regarding the preferences of the communities of Lanare and Alpaugh for electrification, we approve electrification pilots in Lanare and Alpaugh, instead of natural gas pilots. Please see Section 10 for further detail.

PG&E and SCE's comments on the PD requested that the $5,000 per household cap on remediation funding in the PD be altered to a community-wide cap.[186] We decline to make this change and provide further explanation for this, and direct additional reporting on the number of households not able to participate in the pilot for this reason in Section 11.9. We direct this in part to support the goal of continuous learning from the pilot projects in order to support our assessment of options in Phase III.

In their comments, SoCalGas noted that while the decision authorizes pilot customers to receive weatherization or water heating measures prior to the installation of electric/natural gas space heater or electric/natural gas water

[184] PG&E, "Comments on Proposed Decision," November 29, 2018; GRID, "Comments on Proposed Decision," November 29, 2018 at 15.
[185] See PG&E, SCE, SCG and the CEP Team's October, 2018 Revised Proposals, and the Pilot Team's November 29, 2018, "Comments on Proposed Decision."
[186] PG&E, "Opening Comments on Proposed Decision;" SCE, "Opening Comments on Proposed Decision."

heater, the accompanying Ordering Paragraph 19b did not align with this determination.[187] We have made this correction.

TURN asked for clarification in their PD comments on the purpose of the CSGT mileage exemption approved for pilots, and SCE stated that subscribers from DACs other than the pilot communities should be allowed to enroll in pilot CSGT projects making use of the limited 40-mile distance exemption.[188] We clarified the purpose of the exemption and provided some flexibility for enrollment over the life of the solar project. We also clarified some CSGT RFP elements in response to comments from PG&E. TURN also reiterated the conditions necessary for heat pump space heating to be successful in providing heating at an affordable cost and requested that Commission clarify that PAs have flexibility to not install heat pump space heaters in some instances.[189] We concur with TURN and have made this change in Section 11.6.

Greenlining Institute, SCE and PG&E both requested additional minor clarifications to our adopted approach to split incentives challenges.[190] We provide additional clarifying edits on this topic in Section 11.4.

Environmental Defense Fund (EDF) recommended that the decision require PAs to report on how they incorporate community feedback into pilot implementation and to specify that pilot data analysis will include several metrics. We agree that data collection and robust analysis is central to the pilots but decline to alter the decision as the metrics suggested by EDF are adequately reflected in Section 15 and Appendix A, in our view. We encourage EDF to

[187] SoCalGas, "Opening Comments on Proposed Decision," November 29, 2018.
[188] TURN, "Opening Comments on Proposed Decision," November 29, 2018. SCE, "Opening Comments on Proposed Decision," November 29, 2018.
[189] *Ibid.*
[1900] Greenlining Institute, "Comments on Proposed Decision," November 29, 2018 at 4; SCE, "Comments on Proposed Decision," November 29, 2018 at 8; PG&E, "Comments on Proposed Decision," November 29, 2018 at 9.

comment on the PAs' updated pilot research questions and metrics in their Pilot Implementation Plans, which will be filed within 90 days of issuance of this decision, for the IOUs. SCE concurred with EDF's recommendations and expressed some confusion in its reply comments regarding approval of its proposed pilot evaluation plan.[191] We clarify here and in Section 15 that PAs are directed to independently evaluate the effectiveness of their pilot projects and shall include updated Pilot Evaluation Plans in their Pilot Implementation Plan advice letters. PAs shall collect pre- and post- implementation data as part of their approved pilots, analyze this data and evaluate the effectiveness of their approved pilot projects as set forth in their pilot proposals and modified by this decision. We direct PAs to utilize their proposed EMV& budget for this task and/or, particularly if this has not been specified, to allocate up to four percent of their total approved budget for this task. The process evaluation authorized in Section 15 is additional to each PA's own direct analysis of pilot effectiveness, as assessed against their adopted pilot objectives, research questions and metrics.

We also have made minor clarifications on the topics of workforce training, FERA guidelines, leveraging with the ESA program, the Reliability Report, SB1477, CSI Solar Thermal funding, deletion of refrigerators as a pilot measure, SASH as a leveraged program, and SCE's hot water measure budget in response to comments on the PD. We add a proceeding calendar as requested by CforAT in their PD comments as Appendix 2.

SoCalGas and the Pilot Team provided comments concerning the electrification pilot projects for Allensworth and Seville. Both sets of comments requested that the Commission reconsider the community choice natural gas pilot options proposed in the ACR for these communities. Our preference is for fully funding approved pilot projects, but we also cannot justify spending

[191] SCE, "Reply Comments on Proposed Decision,"

ratepayer funding for the full amount required to implement these natural gas proposals. We therefore confirm approval of the PG&E electrification pilot projects for these communities. However, in response to these comments, and in consideration of the community votes in favor of natural gas, we allow for SoCalGas to provide notice within 60 days of issuance of this decision that it has secured guaranteed funding for the additional funds necessary to implement the natural gas pilot projects in Allensworth and/or Seville. If such notice is filed it must include the source of the funding, the guarantee for the funding, and the amount of funding. SoCalGas must then file a Tier 3 advice letter within 30 days that includes a Pilot Implementation Plan for its proposed natural gas pilots in Allensworth and/or Seville. See Section 10 for further detail.

20. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner and Darcie L. Houck and Cathleen A. Fogel are the assigned Administrative Law Judges in the proceeding.

Findings of Fact

1. Pursuant to Section 783.5 of the California Public Utilities Code, R.15-03-010 was instituted to increase access to affordable energy for SJV DACs that lack access to natural gas.

2. Public Utilities Code Section 783.5 directs the Commission to evaluate the economic feasibility of extending natural gas pipelines, increasing electric subsidies, and other potentially cost-effective energy options for the SJV DACs in this proceeding.

3. Section 783.5 defined a disadvantaged community as one that is located within the counties of Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, or Tulare; has a population of at least 100; with at least 25 percent of

residential households enrolled in CARE; and has a geographic boundary no further than seven miles from the nearest natural gas pipeline.

4. D.17-05-014, adopted May 11, 2017, determined the methodology and which identified eligible SJV DACs in this proceeding qualified to be listed on the SJV DAC list established in Phase I of this proceeding.

5. All twelve of the communities (Allensworth, Alpaugh, Cantua Creek, Ducor, Fairmead, Lanare, Le Grand, La Vina, Seville, California City, West Goshen, and Monterey Park Tract) considered for hosting pilots are included on the current list of SJV DACs.

6. ~~7.~~ A representative number of SJV DAC communities is needed to participate in the pilot projects to gather useful data for Phase III of this proceeding.

7. ~~8.~~ The use of natural gas or electricity can decrease utility costs, increase overall financial health, and provide a safer means of heating and cooling space and water for low-income households as compared to wood burning and propane use.

8. ~~9.~~ The pilot projects will achieve the dual goals of providing cleaner, more affordable energy options to the pilot communities and gathering data needed to assess the economic feasibility of extending affordable clean energy options to all SJV DACs identified in Phase III.

9. ~~10.~~ The pilot projects will allow for acquiring real time information and data on changes in participant households including: energy consumption; energy experience; costs; and will inform how best to extend affordable energy to all of the communities on the SJV DAC list.

10. ~~11.~~ The average household annual income across the host pilot communities is $31,214 per year, spanning a low of $20,700 per year to $41,776 per year.

11. ~~12. Approximately~~On a weighted average basis, approximately eighty-five percent of households across the host pilot communities qualify for the CARE program~~.~~; on a simple average basis, approximately seventy-nine percent of households qualify for the CARE program.

12. ~~13.~~ Renters occupy approximately 37 percent of homes across the pilot communities and 25 percent of the homes lacking natural gas; seventy percent of the dwellings lacking access to natural gas are single-family homes; 100 mobile homes and 100 multi-family units lack access to natural gas.

13. ~~14.~~ Natural gas pilots have the potential to provide new and useful information to inform assessments of economic feasibility in Phase III.

14. ~~15.~~ SoCalGas's proposed pilot projects in Lanare, Alpaugh and California City have the lowest or essentially equal unit costs per household as the other pilots proposed for those communities~~.~~ but would not treat all households in those communities lacking natural gas.

15. ~~14.~~ While communities in this proceeding and the CalEnviroScreen are based on different geographic units, there is significant overlap between communities identified in this proceeding and the top 25 percent of census tracts burdened by pollution as identified by the CalEnviroScreen tool.

16. ~~15.~~ Households without natural gas service rely on electricity, propane or wood burning for their space heating, water heating and cooking needs.

17. ~~16.~~ Natural gas and/or electric appliances will improve indoor air quality relative to wood or propane.

18. ~~17.~~ Safety risks alone are insufficient to disallow natural gas pilot projects.

19. ~~18.~~ Natural gas, electricity, propane, and wood burning are distinct energy options with different relative emissions, costs, and other factors.

20. ~~19.~~ PG&E currently relies on Gas Rules 15 and 16 to determine the cost effectiveness of extending natural gas pipelines in its territory.

21. ~~20.~~ SoCalGas currently relies on Gas Rules 20 and 21 to determine the cost effectiveness of extending natural gas pipelines in its territory.

22. ~~21.~~ SB 100 mandates that all retail sales of electricity in California come from 100 percent clean and renewable sources by 2045. The Governor's Executive Order B-55-18 sets a new statewide greenhouse gas reduction goal to achieve carbon neutrality as soon as possible, but no later than 2045.

23. ~~23.~~ The ESA Program considers non-energy benefits in the areas of health, comfort, and safety in its assessment of cost-effectiveness.

24. ~~24.~~ AB 797 (2017 Irwin) modified the CSI Thermal program by directing the commission to expand the program to homeowners that lack access to natural gas and rely on propane or wood burning to fulfill their space heating, water heating, and cooking needs who are being considered to receive natural gas and who reside in the SJV communities identified by the commission pursuant to paragraph (1) of subdivision (a) of Section 783.5.

25. ~~25.~~ The Commission has ordered the IOUs to conduct workshops and devise outreach and marketing plans to improve CARE and ESA enrollment in communities with lower than expected enrollment rates.

26. ~~26.~~ The IOUs currently disallow enrollment in the All Electric Baseline program by households with propane or wood burning energy sources.

27. ~~28.~~ Some of the traditional low-income solar programs administered by the Commission are available only to housing units with deed restrictions to remain "low income."

28. ~~31.~~ SB 1383 (Lara, 2016) requires the California Air Resources Board to develop a plan to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40% below 2013 levels by 2030 and directs the Commission to scope out selection criteria for pilot bio-methane projects.

29. ~~32.~~ The San Joaquin Valley has clusters of dairy farms within the vicinity of the MPT community.

30. ~~33.~~ The CEC Barriers Study Final Report explores barriers to and opportunities for expanding low income customers' access to energy efficiency, weatherization and clean energy.

31. ~~34.~~ Coordination and leveraging of resources between programs and ongoing proceedings may address structural challenges to SJV DACs communities accessing affordable energy.

32. ~~35.~~ The CEC has a statutory mandate to target outreach and research to DACs in its administration of the EPIC Program.

33. ~~36.~~ The CEC has expressed its intent to focus on DACs in its administration of the Natural Gas Research, Development, and Demonstration Program.

34. ~~37.~~ The Commission may consider non-financial factors in making resource planning and investment decisions.

35. ~~38.~~ Direct costs and benefits of potential energy programs include the implementation costs of the program to utilities, ratepayers, and the affected households. Quantifiable benefits include lowered energy costs, achieved energy efficiency, measurable reduction in GHGs and other pollutants.

36. ~~39.~~ Indirect costs and benefits of energy programs include benefits to society and the environment, which include improved air quality, reduced GHGs, and increased diversity in energy sources.

37. ~~42.~~ Community Energy Option Assessment Workshops were held in each of the twelve proposed pilot communities that allowed utilities, community members and other stakeholders to meet and discuss viable affordable energy options.

38. ~~43.~~ The parties have not shown that that natural gas or renewable natural gas pilots should be categorically excluded as pilots.

39. ~~44.~~ The rule changes recommended in the ACR for the Self-Generation Incentive Program may support further access to affordable energy for SJV DACs, which in turn can improve the health, safety, and air quality of these communities.

40. ~~45.~~ Certain exemptions from ESA program requirements, which must all occur during the pilot project implementation period, will allow for more efficient and cost-effective weatherization for pilot participants.

41. ~~46.~~ Leveraging of the CSGT program to develop solar projects will benefit host pilot communities and deliver bill discounts.

42. ~~47.~~ Without providing an exemption to the 5-mile distance limitations set out in D.18-10-007 correcting and clarifying D.18-06-027 leveraging of the CSGT program for development of solar projects in the host pilot communities will not be possible.

43. ~~48.~~ A location exemption of up to 40-mile limit applicable only to the approved pilots will allow multiple small rural communities in the SJV to benefit from the CSGT program.

44. ~~49.~~ Further examination of bill protection approaches is needed, and additional in-depth assessment of these approaches is best addressed in workshops.

45. ~~50. Administrative, EM&V~~It is reasonable to reduce SCE and PG&E's administrative costs by 5%, to cap SCE and PG&E's administrative, EM&V, and ME&O budgets ~~should be capped at 10%, 4%, and 6% respectively of the approved pilot projects'~~at 20% of non-contingency programmatic ~~costs.~~budgets and to allow SCE and PG&E discretion within that 20% to determine how to most effectively allocate to the cost categories.

46. ~~51.~~ Providing participants only one appliance does not provide sufficient assurances that energy costs savings will occur in participating households but may be appropriate in households that are not appropriate to receive heat pump space heaters.

47. ~~52.~~ For the pilots to meet the intended goals, seeking assurances from property owners that tenants will not be evicted or face significant rent increases is ~~required~~recommended.

48. ~~53.~~ It is necessary to provide for a CEN/CPM to assist pilot community residents with understanding and adhering to program requirements.

49. ~~54.~~ Use of more than one program administrator and pilot implementor will allow for more diverse pilot learnings and data that will be utilized in Phase III of the proceeding.

50. ~~55.~~ A competitive bidding process utilizing an RFP is an appropriate mechanism for use in selection of the CEN/CPM.

51. ~~56.~~ A competitive bidding process utilizing an RFP is an appropriate mechanism for use in selecting a third-party PA/PI.

52. ~~57.~~ A competitive bidding process utilizing an RFP is an appropriate mechanism for use in selecting third-party PIs.

53. ~~58.~~ It is unreasonable to require rate-payers to fund the purchase and installation of electric resistance water heaters as part of the pilot program.

54. ~~59.~~ The health and safety of pilot community residents is a top priority and must remain so throughout the administering and implementation of the pilots.

55. ~~60.~~ An important purpose of the SJV DAC Data Gathering Plan approved in D.18-08-019 is to collect propane cost data across the SJV DAC listed communities.

56. ~~61.~~ It is important that all PAs work to ensure energy ~~bill~~cost savings for all households receiving electric appliance retrofits as part of the pilots.

57. ~~62.~~ SJV DAC host pilot communities and ~~ratepayer~~ratepayers would benefit from leveraging of incentives provided by the DAC-SASH program for implementation of pilots.

58. ~~63.~~ SJV DAC host pilot communities and ratepayers would benefit from leveraging existing CSI-Thermal funds to provide solar water heating that will increase access to affordable clean energy.

59. ~~64.~~ Continued examination by the IOUs as to the best and most cost-effective methods to improve reliability in the pilot communities and the SJV more broadly is necessary to ensure participant confidence in transitioning from wood and propane uses to all-electric energy uses.

60. The funding gap between the approved Allensworth and Seville pilots, and SoCalGas's proposal is $3,644,003 and $3,829,098 respectively

61. It is reasonable that if SoCalGas can secure the funds needed to fill the funding gap in the immediate future for the communities of Allensworth and

Seville, that the natural gas option will provide significant benefits and additional information to inform the overall economic feasibility study to be conducted in Phase III of the proceeding.

Conclusions of Law

1. The methodology and definition to identify eligible communities, as adopted in D.17-05-014, complies with the statutory requirements of Public Utilities Code Section 783.5 and each of the twelve proposed host pilot project communities have been identified as an eligible community.

2. The 178 communities, including the 12 potential host pilot communities, meet the statutory definition of DACs, and each of the twelve proposed host pilot project communities are on the SJV DAC list authorized in Phase I of this proceeding.

3. The approved pilot projects should not be deemed precedential.

4. The eleven of the twelve pilot projects addressed in this decision should be approved ~~and~~as set forth in the decision; each of the eleven meets the following objectives: 1) allows for gathering inputs to assess cost-effectiveness and feasibility during Phase III; 2) provides access to affordable energy options in participating pilot project host communities; 3) reduces households energy costs for participating pilot project ~~host customers~~households; 4) increases the health, safety and air quality of participating host pilot project communities; 5) tests approaches to efficiently implement programs; and 6) assesses potential scalability.

5. The pilots adopted in this decision are reasonable and consistent with Section 783.5 and should be approved; the host SJV DACs will benefit from the pilots.

6. It is reasonable and consistent with both SJV DAC pilot project objectives and Section 783.5 to allow for exemptions to certain Commission programs as set forth in this decision.

7. Energy conditions of households using natural gas, electricity, propane and wood burning should be evaluated based on (1) The relative emissions of GHG per MMBtu; (2) The relative emissions of criteria pollutants per MMBtu; (3) The relative cost of heating per MMBtu; and (4) Any other quantitative or qualitative factors identified that may impact customer health, comfort or safety.

8. The correct method to assess potential costs to ratepayers should be by assessing each proposed pilot individually as compared to others.

9. ~~The Commission should require the IOUs to submit pilot project specific all-electric tariffs for households participating in all electric pilot project options for households switching from using propane and wood burning as energy sources.10.~~ The Commission should require the IOUs to conduct workshops to address bill protection, affordability, ~~and~~ split incentives, and the Reliability Report.

~~11.~~10. The Commission should ensure expanded engagement, education and outreach to all households located in host SJV DAC communities, particularly in all-electric pilot host communities.

~~12.~~11. It is reasonable to allow community solar projects in the SJV DAC communities where all-electric pilots are approved.

~~13.~~12. The Commission should provide targeted exceptions in order to leverage the existing clean energy programs to maximize the use of ratepayer funds, including CSI-Thermal, ESA, and the CS-GT.

~~14.~~13. The Commission should direct the IOUs to submit reports on their efforts and progress in administering and implementing the approved pilots consistent with the direction set forth in this decision.

~~15.~~14. Pursuant to Section 701.1(c), in calculating the cost effectiveness of energy resources, "the Commission shall include, in addition to other ratepayer protection objectives, a value for any costs and benefits to the environment, including air quality."

~~16.~~15. The pilot projects are consistent with the legislative directives of AB 2672 and California's climate change (SB 32, SB 100, and SB 350); and SB 1383 short-lived climate pollution reduction laws.

~~17.~~16. The pilot projects are consistent with the directives of Governor's Executive Order B-55-18 To Achieve Carbon Neutrality economy-wide, including requiring significant reductions of destructive super pollutants including black carbon and methane.

~~18.~~17. It is reasonable and consistent with Section 783.5 for the pilots to be used as a tool for data gathering and leveraging efficiencies while maximizing third party implementation.

~~19.~~18. The following criteria should be considered in selecting pilots: community support and benefits; affordability; pilot replicability, value and reasonableness of costs; fully funding approved pilots, pilot project as data gathering and learning tools not an ongoing program.

~~20.~~19. The Commission's Energy Division should select a PA / PI using an RFP process managed on the Commission's behalf by one of the IOUs.

20. The Commission Energy Division staff should play a central role in developing the PA/PI RFP and make the final decision on the winning bidder.

21. ~~The Commission Energy Division staff should play a central role in developing the RFP and make the final decision on the winning bidder.22.~~ The Commission's Energy Division should select a CEN/CPM using an RFP process managed on the Commission's behalf by one of the IOUs.

22. The Commission Energy Division staff should play a central role in developing the CEN/CPM RFP and make the final decision on the winning bidder.

23. ~~The Commission Energy Division staff should play a central role in developing the RFP and make the final decision on the winning bidder. 24.~~ It is reasonable to require the IOUs /PAs to develop program rules and procedures, and to submit those processes to the Commission for consideration via Tier 1, Tier 2, and Tier 3 Advice Letters consistent with this decision.

~~25.~~24. It is reasonable and consistent with Section 783.5 to promote workforce development, training, education and outreach associated with appliances and home improvements required to transition households from wood burning and propane to all electric energy options.

~~26.~~25. It is reasonable to require the IOUs to coordinate with major manufacturers to utilize existing ESA processes and guidelines for bulk purchasing for pilots, where appropriate, which will insure lower costs for appliance replacements.

~~27.~~ 26. The Commission should approve the updated budgets and corrected cost recovery mechanisms for the pilots and further assessment of the proposed MPT pilot as set forth in this decision.

~~29.~~27. The Commission should, in conjunction with stakeholder input, host a series of energy option assessment meetings in the twelve SJV DAC pilot communities to assess progress with the approved pilot programs.

~~30.~~28. PG&E should further explore and develop its microgrid and tank proposal for MPT with an emphasis on securing a dairy digester partner and more thoroughly assessing the costs and timeliness of the proposals.

~~31.~~29. The Commission should consider the rule changes recommended in the ACR for the Self-Generation Incentive Program approved in R.12-11-005 in 2019.

~~32.~~30. The Commission should initiate a Phase III to the proceeding to further implement Section 783.5 and increase access to affordable energy in disadvantaged communities in the SJV.

O R D E R

IT IS ORDERED that:

1. The ~~twelve~~12 communities ~~identified~~considered for pilot projects meet the definition of a San Joaquin Valley disadvantaged community ~~to identify eligible communities in this proceeding~~as determined in Decision 17-05-014, are approved to host pilot projects, and the identified pilot projects are approved as set forth in this decision.

2. We direct Pacific Gas and Electric Company (PG&E) to further explore and develop the renewable natural gas microgrid or tank pilot project for Monterey Park Tract (MPT), with an emphasis on securing a dairy digester partner and more thoroughly assessing the costs and timeline of the proposed project; consult with Turlock Irrigation District and the California Energy Commission regarding the potential for electrification of MPT; and file a summary of its progress assessing the feasibility of options for providing affordable clean energy to MPT in the form of a Tier 1 Advice Letter within 180 days of issuance of this decision. We authorize PG&E up to $250,000 for this effort~~.~~ to be recovered as described in Ordering Paragraph 23.

3. We approve Pacific Gas and Electric Company's (PG&E) pilot projects for Alpaugh, Allensworth, Seville and Cantua Creek as modified by this decision. PG&E is authorized to recover $~~9,641,391~~9,655,835 for these projects. All costs shall be treated as expenses~~.~~ but including the capital expenditure treatment as expenses for these pilots shall not set a precedent for the future. If gas options move forward for Allensworth and/or Seville as provided for in this decision, PG&E shall not recover the funding authorized for the Allensworth and/or Seville electrification pilot budget(s).

4. We direct Pacific Gas and Electric Company (PG&E) to solicit Community Solar Green Tariff (CSGT) project(s) to serve Allensworth, Seville, Lanare, Fairmead, ~~and Le Grande; and a CSGT or Disadvantaged Community Green Tariff (DAC-GT) project(s) for~~Le Grand, Cantua Creek and Alpaugh; PG&E should enroll all eligible residents onto the DAC-GT program until the CSGT projects are built.

5. We approve Southern California Gas Company's (SoCalGas) pilot projects for California City~~, Alpaugh and Lanare~~ as set forth in this decision. SoCalGas is authorized to recover $~~6,083,431~~5,641,100 for administering the gas ~~pilots~~pilot for California City~~, Alpaugh and Lanare.~~ .

6. We approve Southern California Edison Company's (SCE) pilot projects for Ducor, West Goshen and California City as modified by this decision. SCE is authorized to recover $~~15,371,065~~15,411,008 for these projects. All costs shall be treated as expenses.

7. We direct Pacific Gas and Electric Company (PG&E) to support the selection of a third-party pilot administrator and pilot implementer (PA/PI) for the communities of Fairmead, La Vina, and Le Grand through a competitive request for proposal (RFP) selection process and to manage the RFP process on

the Commission's behalf. PG&E will conclude the RFP process and sign a contract with the winning PA/PI no later than June 30, 2019, unless a different date is determined through a letter from the Commission's Energy Division.

8. We approve a budget of $~~23,154,009~~25,754,613 for pilot projects in Fairmead, La Vina and Le Grand. PG&E is authorized to recover $~~23,154,009~~25,754,613 for these projects. All costs shall be treated as expenses~~.~~ but including the capital expenditure treatment as expenses for these pilots shall not set a precedent for the future.

9. We direct Southern California Edison (SCE) to manage a competitive solicitation to select a single Community Energy Navigator Program Manager (CPM) in accordance with this decision. Commission staff will select the CPM through a request for proposal process managed by SCE on behalf of the Commission. SCE shall finalize a contract with the selected CPM no later than June 30, 2019.

10. We approve a budget of up to $~~1.8~~1.5 million for the Community Energy Navigator (CEN) program and CEN Program Manager, which is included in the budgets approved in Ordering Paragraphs 3, 5, 6, and 8.

11. We direct the third-party pilot administrator/implementer within 60 days of contract execution, and Pacific Gas and Electric Company, Southern California Edison, and Southern California Gas Company within 90 days of the issuance of this decision, to file Tier 2 Pilot Implementation Plan Advice Letters containing:

(a) ~~pilot~~Pilot project budgets and specific pilot project plans, timelines, and other pilot components as directed in this decision;

(b) ~~a~~ A Safety and Risk Management Plan;

(c) ~~workforce~~Workforce development and workforce, education and training plans;

(d) ~~a~~A description of the coordination methods that will be used to leverage existing program budgets;

(e) ~~appliance~~ Appliance warranty information, including the specifics of warranties for measures to be installed;

(f) ~~details~~Details on the coordination of their electrification work with the Disadvantaged Communities Solar on Affordable Single-Family Homes Program;

(g) ~~details~~Details on the coordination of pilot implementation with the California Solar Initiative Solar Thermal Program;

(h) ~~details~~Details on approaches to substandard housing; and

(i) ~~updated~~ Updated pilot project objectives, research questions and metrics, in accordance with this decision.

12. We direct Pacific Gas and Electric Company, Southern California Edison, and Southern California Gas Company, and the third-party pilot administrator/ implementer to:

a) Collaborate actively and transparently with the selected Community Energy Navigator Program Manager to facilitate the pilot projects' success;

b) Actively promote the California Solar Initiative Thermal Program in all 12 communities, including Monterey Park Tract, as part of pilot project implementation;

c) Require households receiving appliance retrofits to have installed a smart meter and to consent to sharing their customer data and usage through "Click-Through" Authorization or a standard Authorization to Disclose Customer Information form;

d) Use the Energy Savings Assistance Program's self-certification approach to determine pilot community residents' eligibility to receive appliance removal and upgrades as directed in this decision;

e) ~~Obtain~~Seek to obtain assurances from property owners that they will not significantly increase rents or evict tenants as a

result of home improvements for at least five years following completion of pilot appliance installations, as described in Section 11.4;

f) Offer the workforce development and workforce education and training elements outlined in this decision and coordinate implementation activities;

g) Provide warranties on and servicing of all home appliance technologies installed during the pilot project as provided for in this decision;

h) Collaborate with the Data Gathering Plan Working Group and Data Plan Contractor authorized in Decision 18-08-019, and, if feasible, the independent pilot project process evaluation contractor directed in Ordering Paragraph 21, to develop final consistent and final unique pilot reporting metrics and to collect and report on all final pilot project ~~reporting~~evaluation metrics following the pilot projects, as set forth in this decision; and

i) Within 90 days of completion of their authorized pilot project implementation activities, file a Tier 1 Advice Letter that documents adherence to their approved Safety Plan, describes all health and safety issues encountered, summarizes methods taken to ensure retention of accurate records for purposes of equipment maintenance and warranties, and provides any additional information deemed relevant.

j)

13. Pacific Gas and Electric Company and Southern California Gas Company are directed to file Tier 2 Advice Letters modifying the California Solar Initiative Thermal Program incentive levels to provide fully-subsidized solar thermal water heating systems to eligible pilot participating households within 60 days of adoption of this decision.

14. We direct Southern California Edison, Pacific Gas and Electric, Southern California Gas Company and the third-party pilot administrator/implementer to use ~~the Family Electric Rate Assistance (FERA)~~an income eligibility threshold of

400 percent of federal poverty ~~level~~guidelines to determine a household's eligibility to receive appliance retrofits in the communities of California City, Allensworth, Alpaugh, Fairmead and Le Grand, as approved in this decision, and to prioritize appliance retrofits to households meeting California Alternate Rate for Energy income eligibility thresholds in all communities.

15. We direct Pacific Gas and Electric Company, Southern California Edison Company, and Southern California Gas Company to:

a) Cap all administrative costs (including general administration and direct implementation costs), evaluation, measurement and verification and marketing, education and outreach budgets at ~~ten~~twenty percent~~, four percent and six percent respectively~~ of their approved pilot projects' non-contingency programmatic costs, using discretion to allocate between these cost categories as needed;

b) Conduct competitive requests for proposals to select one or more implementers, ~~or~~and other necessary third-party support, for their approved pilot projects.

c) Collaborate with Commission staff to notice, host and facilitate two workshops within 45 days of issuance of this decision to address the issues of Bill Protection and Split-Incentives as set forth in this decision;

d) File Tier 2 Bill Protection Advice Letters that address the issues identified in Section 11.2 of this decision within 45 days of the Bill Protection workshop ~~as provided for in this decision~~, detailing their planned approaches to ensuring pilot participants' energy cost savings;

e) File a Tier 2 San Joaquin Valley Split Incentives Advice Letter within 45 days from the Split Incentives Workshop that describes and appends the split-incentives agreement that they will use in the pilot projects;

f) Develop or leverage existing bulk purchasing pricing arrangements for approved pilot projects, and to file a Joint Tier 1 Bulk Purchasing Information Only Advice Letter 60

days after the approval of the Tier 2 Program Implementation Plan filings; and

g) Serve and file reports detailing their efforts to engage disadvantaged communities in the San Joaquin Valley, including progress in implementation of the pilot projects approved in this decision. The reports shall include information on the Disadvantaged Communities Green Tariff Program, the Community Solar Green Tariff program, the Disadvantaged Communities Solar on Affordable Single-Family Housing Program, the Self-Generation Incentive Program, the California Solar Initiative Thermal program, the Solar on Multifamily Affordable Housing Program, the Energy Savings Assistance Program, the Middle-Income Direct Install program, and the Electric Vehicle Grid Integration Pilot program, including how each program has been leveraged to implement the eleven pilot projects authorized in this decision, or if not leveraged the barriers or basis for not utilizing the program, within one year of the issuance of this decision, and annually thereafter.

16. We direct Pacific Gas and Electric Company, Southern California Edison, and Southern California Gas Company, and the third-party pilot administrator/ implementer to fund measures available through the Energy Savings Assistance Program, the Middle-Income Direct Install Program, the Mobile Home Direct Install Program and/or the California Solar Initiative Solar Thermal Program at the current measure and installation costs established in those programs and include in their Bulk Purchasing Joint Tier 1 Information Only Advice Letter a description of the co-funding arrangements providing for this.

17. We direct Pacific Gas and Electric Company and Southern California Edison Company to:

a) ~~Include in their Tier 2 Bill Protection Advice Letters a special pilot electric rate for communities receiving electrification pilots. The pilot rate for each of the pilot projects shall explicitly waive the Super User Energy charge~~

~~for participating tiered customers during pilot project implementation and the subsequent five years, specify an appropriate all-electric baseline allowance, and state any additional discount the participants are eligible for as part of the applicable pilot; and~~

a) ~~b)~~ File within 180 days from issuance of this decision a Tier 1 Pilot Community Reliability Report Advice Letter that analyzes root causes of the outages in the San Joaquin Valley communities in their service territory and that provides timelines for corrective actions in accordance with this decision.

18. We direct Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE) and the third-party pilot administrator/ implementer to:

a) Use approved electrification budgets to install heat pump water heaters, heat pump space heating and cooling units, advanced weatherization measures, electric or induction cooktops, and where current propane clothes dryers exist, and high efficiency electric clothes dryers, as provided for in their approved pilot projects and as modified in this decision;

b) Target installing local preset controls and/or digital communication technologies on 150 heat pump hot water heaters in each of PG&E and SCE's service territories.

19. For purposes of the eleven pilot projects authorized in this decision, and only for these eleven pilot projects, we:

a) Grant an exemption from the five-mile radius limitation required in the Community Solar Green Tariff (CSGT) program and we will allow up to a 40-mile radius for any CSGT project that includes the eleven pilot projects identified in this decision; and

b) Approve the following two exemptions from Energy Savings Assistance (ESA) program requirements, which must all occur during the pilot project implementation period: ESA weatherization interventions – expanded to include water heating measures—may occur at the same

> time, or in the most efficient and cost effective manner, in relation to the household being placed on an all-electric or natural gas rate; and, customers may receive ~~heat or electric/natural gas water heating prior to receiving~~ weatherization or water heating measures prior to the installation of an electric/natural gas space heating or a electric/natural gas water heater.

20. Rulemaking 12-11-005 will consider the proposed changes to the Self Generation Incentive Program recommended in the October 3, 2018 Assigned Commissioner's Ruling during 2019.

21. We direct Southern California Gas Company to manage a solicitation to select an independent pilot project process evaluation contractor to be selected by the Commission no later than April 30, 2019, unless a different date is determined through a letter from the Commission's Energy Division.

22. We direct Southern California Edison (SCE) to conduct a solicitation for an expert technical entity to support development of an Economic Feasibility Framework as provided for in this decision; Commission staff will draft the scope of work and substantively oversee the contract and SCE shall serve as the fiscal agent.

23. We direct Pacific Gas and Electric Company~~,~~ (PG&E) and Southern California Edison~~, and Southern California Gas Company to establish Public Purpose Program~~ to file a Tier 1 advice letter within 45 days from issuance of this decision to establish one-way balancing accounts to track ~~and recover pilot project costs~~the non-leveraged costs of pilot projects against the costs and budget as approved in this decision over a period of three years using a rate design methodology approved for recovery of other non-CARE Public Purpose Program costs. ~~SCE and PG&E may file a Tier 3 advice letter to request additional budget authority under limited conditions.~~

24. We direct Southern California Gas Company (SoCalGas) to file a Tier 1 advice letter within 45 days from issuance of this decision to establish a one-way balancing account with two subaccounts: one subaccount will record the revenue requirement associated with all to-the-meter (TTM) costs that will be recovered in transportation rates until the TTM costs are rolled into base rates in connection with SoCalGas' General Rate Case; the second subaccount will track beyond-the-meter, non-leveraged costs and will be recovered in Public Purpose Program surcharge rates.

25. We direct Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), and Southern California Gas Company (SoCalGas) to reduce the scope of work of the pilots approved in this decision if pilot unit costs start trending significantly higher than forecast and approved in this decision, in consultation with Commission Energy Division staff. SCE, SoCalGas, and PG&E may file a Petition for Modification of this decision to request additional budget authority if deemed necessary.

26. We authorize Southern California Gas Company (SoCalGas) to serve and file a Notice of Intent (Notice) within 60 days from issuance of this decision in the event that it identifies $3,644,003 in guaranteed funding for Allensworth and/or $3,829,098 in guaranteed funding for Seville to cover the gap in funding between that authorized for the approved electrification pilots for Allensworth and/or Seville and the funding need identified by SoCalGas for natural gas extension pilots for those same communities. If this Notice is filed, SoCalGas must, within 30 days, file a Tier 3 Advice Letter containing a Pilot Implementation Plan for the natural gas pilot project(s) in Allensworth and/or Seville for which it identified funding. If Southern California Gas Company does not file a Notice, the

electrification pilots for Allensworth and Seville will proceed as approved in this decision.

27. If Southern California Gas Company files the Notice of Intent described herein and approved in this decision for the communities of Allensworth and/or Seville within 60 days of issuance of this decision, we direct PG&E to not include the community(ies) of Allensworth and/or Seville in its Program Implementation Plan Advice Letter filed within 90 days of issuance of this decision as directed in Ordering Paragraph 11

28. If the Commission approves the Tier 3 Advice Letter implementing gas pilots in the communities of Allensworth and Seville as set out in this decision, we direct PG&E to not recover the approved electrification pilot budget for these communities as contained in Table 24 of this decision.

29. ~~24.~~ We direct Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), and Southern California Gas Company (SoCalGas) to File a Joint Tier 1 Evaluation, Community Energy Navigator (CEN), and Economic Feasibility Framework Cost Sharing Advice Letter within 90 days of issuance of this decision containing a co-funding agreement that specifies the cost-sharing schema for a pilot project process evaluation, with costs not to exceed $250,000; for contracting to support development of an economic feasibility framework, with costs not to exceed $500,000; and for CEN cost-sharing details as provided for in this decision. PG&E, SCE and SoCalGas are authorized to recover their agreed portion of these costs in the one-way balancing ~~account~~accounts authorized in Ordering ~~Paragraph 23.~~Paragraphs 23 and 24.

30. ~~25.~~ The Commission shall coordinate and hold a minimum of three community-based workshops at selected communities during the pilot project

implementation period to provide a summary of progress on implementation of the eleven pilot projects, lessons learned, and barriers to implementation of the pilot projects.

31. ~~26.~~ The November 7, 2018 Motion of Pacific Gas and Electric Company (U39G) for Permission to File Under Seal Confidential Material Attached to Pacific Gas and Electric Company's (U 39 G) Filing of Residential Recommendations, Pursuant to the Assigned Commissioner's Ruling is hereby granted. The confidential materials in the confidential, unredacted version of the information is attached as Attachment A to "Pacific Gas and Electric Company's (U39G) Filing of Residential Recommendations Pursuant to the Assigned Commissioner's Ruling.

32. ~~27.~~ The confidential, unredacted version of the information in Attachment A to "Pacific Gas and Electric Company's (U 39 G) Filing of Residential Recommendations Pursuant to the Assigned Commissioner's Ruling" shall remain under seal, and shall not be made accessible or disclosed to anyone other than the Commission staff except on the further order or ruling of the Commission, the Assigned Commissioner, or the Assigned Administrative Law Judge.

33. We grant Brightline Defense Project's motion for party status.

34. ~~28.~~ All pending motions that have not been ruled upon at the time this decision is adopted are denied.

35. The Commission Process Office shall serve this decision on the service lists for the following proceedings; Rulemaking (R.) 12-11-005, R.12-06-013, Application (A.)14.-11-007, and R.14-07-002.

36. ~~29.~~ Rulemaking 15-03-010 remains open.

This order is effective today.

Dated, _____, at San Francisco, California.

Appendix A

Template to Support Finalization of Pilot Research Questions and Reporting Metrics

Primary Desired Outcomes / Objectives	Questions	Reporting Metrics
1. Ensure Equitable Access to Affordable Energy Options to Communities and Households	• How many energy options were provided to each host community? • What options appealed most to households? • Etc. (please modify and/or provide additional questions)	• Number of options provided and short description • Number and percent of households choosing each option
2. Reduce Energy Burden of Participating Households	• How have participants' monthly energy bills changed? • How have participants' energy burden changed? • Total estimated cost savings to participating households • Number and percent of households with greater access to affordable energy • How did residents' choice of rates and tariffs impact their cost savings? • What is the proper way to evaluate "Household Energy Costs" (as opposed to the limited perspective of "electric bills" or "natural gas bills")? What is the appropriate way to assess reductions in "Energy Burden?" • What are customers' needs around affordability (total cost), predictability, stability, and bill controllability? How do they balance or prioritize these issues?	• Pre-pilot energy bills (costs) / post-pilot energy bills (costs) • Pre / post energy costs percentage of household income (energy burden) • TBD by PAs; PIs, Data Plan Contractor and Process Evaluator /modify
3. Provide Non-Energy Benefits—General	• How do health, comfort and safety change with the adoption of these new technologies? • What are the best metrics to reflect changes in health, comfort, and safety?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
4. Provide Non-Energy Benefits- Safety	• What safety concerns were discovered and addressed? • Etc. (please modify and/or provide additional questions)	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
5. Provide Non-Energy Benefits- Health	• What in-home air quality improvements may have occurred (replacement of faulty circuits and/or combustion appliances)?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
6. Provide Non-Energy	• What reductions in GHGs were achieved? • To what extent did pilots impact local ambient air quality (indoor and outdoor)?	• TBD by PAs; PIs, Data Plan Contractor and Process

Benefits-Environment	• What reductions in criteria pollutants (including particulates) were achieved?	Evaluator
7. Provide Non-Energy Benefits- Local Hire and/or Workforce Development	• What percent/number of local hires occurred? • What type of workforce opportunities did residents request? • What were successes/limitations of workforce development practices? What are best practices for workforce development? • What were successes/limitations of local hire practices? What are best practices for local hire development?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
8. Provide Non-Energy Benefits-Reliability	• What was the frequency of electricity outages prior to and during/after the pilots?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
9. Appropriately Minimize Rate and Bill Impacts for Non-Participating Customers	• What was the cost to ratepayers and total costs to implement pilots? • What was the cost to participating customers? • What is the minimum project size to achieve economies of scale and thus to reduce costs? What level of cost reductions were achieved in this way?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
Additional Desired Outcomes / Objectives	Questions	Reporting Metrics
10. Identify Effective Engagement Strategies and Appropriate Flow of Benefits to landlords and tenants	• What was customer satisfaction with their pilot experience (owner-occupied vs tenants)? • What changes in rent occurred over time (starting from a pre-pilot baseline and annual data for duration of pilots)? • What turnover in tenants occurred and was this associated with the energy upgrades? • What other changes to the dwelling occurred that may account for rent increases? • What proportion of landlords agreed to participate in the pilots, and what factors influenced this? • What strategies were most/least successful in securing landlord participation? • Did the benefits of newly-installed equipment flow to tenants, or were the cost savings offset by rent increases (absent any other improvements to the dwelling	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator

	structural conditions)?	
11. Minimize Residual wood and propane use	• What were participation rates in eligible households (separated by owner-occupied versus rental homes)? • What was the baseline use of propane/wood combustion? • What was the residual use of propane/wood combustion? • What percentage of households retained propane or wood-burning equipment? • What percentage of households report using these residual energy sources monthly or more after pilot? • What is estimated spending on residual program and wood- per participating household?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
12. Provide participating households with a variety of electrification options and explore reasons for customer preferences	• How are customers' bill savings affected by the intensity of the home retrofit? • How do bill savings compare to overall program cost across different "packages?" • What are participation rates? (for what reasons do customers choose not to participate)? • Are customers differentially interested in the different packages? (Would the program scale?) • What portion of the community will adopt new technologies? Will this change over time? • What are the trends in customers' interests? (i.e., Are community members interested in different interventions based on their town, housing type, or whether they rent or own?) • How do customers respond to different incentives to electrify, such as an in-community solar option, an out-of community solar option, electric bill discounts, etc.? • What impact do vary levels of electric rate subsidies have on customer participation rates?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator

13. Identify barriers to customer participation and options to mitigate these	• What are the main barriers to customer participation in pilot improvements (language, immigration status, structural condition of home, etc)? • What aspects of the process are most challenging for customers (is there a step where a significant portion of customers drop out)? • What aspects are most challenging for pilot implementers and/or participating contractors?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
14. Identify best practices to provide below-code and /or structurally -unsound homes with affordable energy options	• What is the most successful approach to reduce energy burden in homes with many code violations?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
15. Improve understanding of the impact of electric rate structures on energy burden and affordability	• How do electrification rates impact customer bills? • Were bill protections necessary to keep bills affordable to participants?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
16. Advance technical understanding of challenges of scaling options to all SJV DACs	• What are the challenges / benefits of these activities: upgrading wiring and service panels; installing various electric appliances; controlling these appliances? • What are the drivers for electrification and deploying these at scale? • What are the barriers to deployment? • What are effective strategies to interest customers in adopting the technologies and/or behaviors necessary to support such services?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
17. Identify effective community	• What are the best communication techniques to cultivate community participation and interest?	• TBD by PAs; PIs, Data Plan Contractor and Process

outreach approaches (for replicability across SJV DACs)	• What portion of the community is it reasonable to expect to reach? • Are "town hall" meetings effective ways to share information about new technologies? • Are neighbors good ambassadors for new technologies (e.g., if there are customers who already have an electric stove, can they share their experiences with their neighbors to help answer questions and increase uptake / utilization?)	Evaluator
18. Improve understanding of SJV DAC household energy behaviors	• How much do customers use the various appliances? • Are they satisfied with the appliances? • How has their behavior and usage of each appliance changed, when compared to using propane-fueled or alternate fuel assets? • For pilots involving behavioral components (HPHW, HPSH), were customers able to understand and participate in grid-enabled hot water storage? (etc)	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator
19. Identify general learnings	• What can be learned from the pilots to inform a future framework to guide and incentivize a transition from unregulated to fuels to electricity, including principles for when substitution is appropriate and how costs should be allocated and recovered. • Where there any positive or negative unintended consequences from the pilots? • What is the most efficient way to leverage use of non-IOU funds (Low-Income Home Energy Assistance Program [LIHEAP], California Air Resources Board [CARB] programs, etc.) across multiple communities and households?	• TBD by PAs; PIs, Data Plan Contractor and Process Evaluator

Appendix B

R.15-03-010 Proceeding 2019 – 2020 Calendar

Activity	Specifics	Deadline
Workshops and Webinars	• Split Incentives Workshop • Bill Protection Workshop	Final Decision + days
	• CPM Community Engagement Plan Webinar	Contract Execu +90 days
	• 3 Community-based workshops to discuss pilot project progress	Pilot Implemer Period
	• Reliability Report workshop (organized by SCE, PG&E)	Prior to 180 day of Tier 1 Advic
	• IOU-hosted Pilot Project Bill Impacts workshop	30 days followi filing of first Pi Impact report
Advice Letters and Notices	• Tier 1 Advice Letters from IOUs to establish One-way Balancing Accounts	Final Decision + days
	• Tier 2 CSI Thermal Program Modifications Advice Letter • Possible Notice of Intent from SCG regarding funding for natural gas extension pilot projects in Allensworth and/or Seville	Final Decision + days
	• Tier 2 Pilot Implementation Advice Letter for IOU PAs • Joint Tier 1 Cost Sharing Advice Letter • Joint Tier 1 Pilot Evaluation, CEN, and EFF Cost Sharing Advice Letter • Tier 2 Split Incentives Advice Letter (45 days after Split Incentives Workshop) • Tier 2 Bill Protection Advice Letter (45 days after Bill Protection Workshop)	Final Decision + days
	• Tier 1 Information Only Bulk Purchasing Advice Letter (60 days from filing Tier 2 Pilot Implementation Advice Letters)	Final Decision + days
	• MPT Report • Tier 1 Pilot Community Reliability Advice Letter	Final Decision + days
	• Tier 2 Pilot Implementation Advice Letters for Third-Party PAs	Contract Execu +60 days
	• Tier 1 Safety Plan Adherence Letter	Completion of

		Implementatio days
RFP Contracts	• SCG Sign contract with chosen Process Evaluation Consultant	April 30, 2019
	• PG&E Sign contract with chosen PA/PI	June 30, 2019
Reporting	• SCE, PG&E, SoCalGas to file pre- / post- aggregated, anonymized pilot participant bill impact data	Quarterly start 2020 unless oth directed by ED Director
	• SCE, PG&E, SoCalGas to file information on pilot community remediation costs and needs	Quarterly, inclu with above rep
	• Report summarizing IOU efforts to engage SJV DACs and progress on implementation of approved pilots, including leveraged programs	Final Decision days and annu thereafter

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