

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE



August 8, 2019

Advice Letter 4115-G/5578-E

Erik Jacobson
Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

SUBJECT: PG&E's Annual Advanced Energy Rebuild Advice Letter

Dear Mr. Jacobson:

Advice Letter 4115-G/5578-E is effective as of June 28, 2019.

Sincerely,

A handwritten signature in cursive script that reads "Edward Randolph".

Edward Randolph
Deputy Executive Director for Energy and Climate Policy/
Director, Energy Division



Erik Jacobson
Director
Regulatory Relations

Pacific Gas and Electric Company
77 Beale St., Mail Code B13U
P.O. Box 770000
San Francisco, CA 94177

Fax: 415-973-3582

June 28, 2019

Advice 4115-G/5578-E

(Pacific Gas and Electric Company ID U 39 M)

Public Utilities Commission of the State of California

Subject: PG&E's Annual Advanced Energy Rebuild Advice Letter

Purpose

Pacific Gas and Electric Company (PG&E) hereby submits its first annual Advice Letter in compliance with the California Public Utilities Commission (Commission or CPUC) disposition approving the provisions of Advice 3928-G/5219-E and Supplemental Advice 3928-G/5219-E-A, which allow PG&E to offer increased incentives and program enhancements for structures destroyed by wildfires in 2017 and 2018 that will be rebuilt under 2016 Title 24 building code. This offering is known as Advanced Energy Rebuild (AER).

Background

On April 27, 2018, the Commission approved the following requests included in PG&E Advice 3928-G/5219-E "Request for Energy Efficiency Program Enhancements to Assist October 2017 Wildfire Impacted Customers" and Supplemental Advice 3928-G-A/5219-E-A:

1. Double residential new construction incentives and increase technical support.
2. Increase non-residential new construction incentive cap and design assistance.
3. Allow the California Advanced Homes Program (CAHP) to apply to in-law units.
4. Evaluate program enhancements every two years.

The enhanced program offerings, known publicly as Advanced Energy Rebuild (AER) were made available to serve customers with destroyed homes or businesses in the eight counties impacted by the October 2017 wildfires. On March 19, 2019, the Commission approved PG&E Advice 4068-G/5479-E, which expanded the offering to customers impacted by the Camp and Carr fires of 2018.

The program enhancements are a limited-term solution designed to encourage customers to build to the efficiency levels in 2019 building code in advance of the 2019 code effective date of January 1, 2020.

Per the Commission's request for a Supplemental Advice Letter, Supplemental Advice 3928-G-A/5219-E-A also included an Evaluation, Measurement, and Verification (EM&V) plan stipulating that PG&E would conduct annual reporting of program uptake. In compliance with this requirement, Attachment A to this Advice Letter is an annual report detailing program progress and uptake.

PG&E is also required to conduct more in-depth EM&V and report the results to the Commission every two years, including an analysis of program progress and lessons learned. PG&E worked with the AER program implementers, TRC Solutions, to conduct a survey of customers who are either active or eligible AER participants. As stated in the EM&V plan, the survey was streamlined to minimize the participant response burden and maximize responses to feed into program improvements. The survey was conducted in March of 2019 and results are provided in Attachment A. PG&E expects to repeat this survey annually, with the current results as the baseline for long-term EM&V that will be conducted throughout the life of the AER offering.

Protests

Anyone wishing to protest this submittal may do so by letter sent via U.S. mail, facsimile or E-mail, no later than July 18, 2019, which is 20 days after the date of this submittal. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to via both E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-3582
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

PG&E requests that this Tier 1 advice letter submittal become effective upon submittal on June 28, 2019.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service list for R.13-11-005. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs/>.

/S/

Erik Jacobson
Director, Regulatory Relations

Attachments:

Attachment A – Annual Program Uptake Summary Memo

cc: Service List R.13-11-005



ADVICE LETTER SUMMARY

ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39M)

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person: Yvonne Yang

Phone #: (415)973-2094

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: Yvonne.Yang@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
 PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 4115-G/5578-E

Tier Designation: 1

Subject of AL: PG&E's Annual Advanced Energy Rebuild Advice Letter

Keywords (choose from CPUC listing): Energy Efficiency

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: N/A

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? Yes No

If yes, specification of confidential information: See attached Confidentiality Declaration and Matrix
Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? Yes No

Requested effective date: 6/28/19

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

¹Discuss in AL if more space is needed.

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Erik Jacobson, c/o Megan Lawson
Title: Director, Regulatory Relations
Utility Name: Pacific Gas and Electric Company
Address: 77 Beale Street, Mail Code B13U
City: San Francisco, CA 94177
State: California Zip: 94177
Telephone (xxx) xxx-xxxx: (415)973-2093
Facsimile (xxx) xxx-xxxx: (415)973-3582
Email: PGETariffs@pge.com

Name:
Title:
Utility Name:
Address:
City:
State: District of Columbia Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Advice 4115-G/5578-E
June 28, 2019

Attachment A

Annual Program Uptake Summary Memo

MEMORANDUM

To: Conrad Asper (Pacific Gas and Electric Company)
From: Nic Dunfee, Parul Gulati (TRC)
Re: **Advanced Energy Rebuild – Annual Program Uptake Summary Memo**

ADVANCED ENERGY REBUILD – OVERVIEW

Background

In response to the Northern California wildfires in the Fall of 2017, Pacific Gas and Electric Company (PG&E) launched the Advanced Energy Rebuild (AER) program in conjunction with Sonoma Clean Power (SCP)¹, the Bay Area Air Quality Management District (BAAQMD), MCE², and TRC in May of 2018. TRC is the implementor for the AER program. The AER program administrators are PG&E and SCP.

AER offers incentives for both *all-electric homes* and *advanced energy homes* (dual fuel). Customers can choose between the following two pathways to demonstrate eligibility for the incentives:

- ◆ **Flexible Performance Path:** Energy model should demonstrate a 20 percent improvement in time dependent valuation of energy, as shown on the compliance form document generated by an approved 2016 Title 24 compliance software.
- ◆ **Simple Menu-based Path:** Incorporate a list of measures, as described in the program handbook, to qualify and submit an energy model using a California Energy Commission (CEC)-approved energy modeling software program to demonstrate the energy savings of the measures.

The Flexible Performance and Simple Menu-based Paths can be followed for a rebuild of either an all-electric or advanced energy home, with the incentive amount (\$7,500 or \$12,500) dependent on the type of home being built. In addition, the program offers a 50 percent reduced incentive for qualifying accessory dwelling units (ADUs)³, and an additional \$5,000 incentive for the inclusion of paired solar photovoltaic (PV) and battery storage for the main home. The PV and battery storage incentive is \$2,500 for ADUs. In order to help these homeowners keep their rebuild moving forward, incentives are paid out in two phases: 50 percent is paid at the time of program enrollment and 50 percent is paid after verification of the finished home. Under this program, TRC is responsible for the technical review of all projects, while customer communication and outreach is the responsibility of the program administrators, PG&E and SCP. The AER offering expanded in April of 2019 to serve other counties in PG&E's territory impacted by 2018 wildfires. TRC is now managing customer communications and marketing for those communities, as they are not SCP customers.

¹ SCP provides electricity for its customers in Sonoma and Mendocino counties.

² Previously known as "Marin Clean Energy."

³ An Accessory Dwelling Unit (ADU), also known as a casita, in-law, or granny unit, is a small permanent home that may be established in addition to the main dwelling on a parcel zoned for residential use. ADUs may be attached or detached from the main dwelling.

Originally estimated to rebuild 1,000 homes, the program forecast was subsequently reduced to 225 participating homes through the end of 2019 due to a low number of applications the program received in the first few months of program implementation. To better understand the reasons for low uptake, TRC, with PG&E's guidance, created and launched a survey that investigated customers' knowledge of and experience with the AER offering. SCP sent the survey to all of their customers. The responses received from the survey will help inform future program recruitments. For example, the survey illustrated the need for early program intervention in a homeowner's rebuilding process as well as consumer education regarding the rebuild process in general.

PROGRAM STATISTICS

The following section covers the program statistics from May 1, 2018 through May 31, 2019. A total of 3,246 permits were pulled in the Sonoma and Mendocino areas in this period, 6 percent of which are projects participating in AER. The program website has had 10,421 views to date, with 377 SCP customers signed up for the AER mailing list.

- ◆ 105 total applications have been submitted. Of these applications, 104 applications are for single-family residences and 7 applications are for ADUs. One application is for a multifamily complex with 96 units. A total number of 207 dwelling units is covered under the 105 submitted applications.
- ◆ Of the 105 applications submitted, 66 projects are enrolled and have received the upfront 50 percent incentive. Four (of the 66 enrolled projects) have completed construction and received the remaining 50 percent of the incentives.
- ◆ The 66 enrolled projects include 161 dwelling units: 59 single-family homes, 6 ADUs, and 96 multifamily dwelling units in 1 multifamily complex project.

Program Pathway and Home Type Selection

- ◆ 101 of the 105 applications (96 percent) have taken the Flexible Performance Path, while 4 of 105 applications (4 percent) have taken the Simple Menu-based Path⁴.
- ◆ Of the 104 single-family home projects, 33 (32 percent) chose to build an all-electric home, while 71 (68 percent) chose to build a dual fuel home.

Program Savings

Overall Statistics

- ◆ Enrolled projects have secured an estimated total of 9,620 in kWh savings and 62,780 in therm savings (60 kWh and 387 therms per home on average).

⁴ Simple Menu-based Path homes are not required to be a 20 percent efficiency improvement above 2016 Title 24 code. Three of the four Simple Menu-based Path homes that have applied to AER are above 2016 Title 24 code but are not 20 percent above. For these Simple Menu-based customers, PG&E pays a partial incentive based on the percent above 2016 code. SCP provides the remaining amount of the incentive so that these customers receive the full program incentive amount. This pathway is only offered in SCP territory.

- ◆ Many of the 33 all-electric projects enrolled demonstrated negative savings. This negative is from the unavailability of an all-electric baseline in the CEC-approved Title 24 energy modeling software (California Building Energy Code Compliance-Residential and Energy Pro), which generated a significantly low magnitude of kWh savings for the program. The current estimate for kW savings is negative 15.19 kW.
- ◆ Enrolled projects demonstrate an average delta EDR⁵ of 4.8, with projects ranging between 3 to 12 delta EDRs.
- ◆ The average percent of energy efficiency improvement above 2016 Title 24 code of enrolled projects is 24 percent for the one year period covered in this analysis, with project efficiency improvements ranging between 10 percent to 53 percent above 2016 Title 24 code requirements.

All Electric Statistics

- ◆ 42 percent of the total enrolled projects were all-electric (28 of 66 projects). On average, the projects were at 5.5 delta EDR (projects ranging from 3 to 12), 27 percent above 2016 Title 24 (projects ranging from 20 to 53 percent).
- ◆ Since the energy modeling software does not have an all-electric baseline, such projects resulted in a total savings of negative 10,156 kWh and 0.64 kW savings. The unused therms reported by the software for these projects was 2864.65 therms.

SURVEY SUMMARY REPORT

TRC created and launched a survey in March 2019 to obtain feedback from customers in the affected areas who either were not able to participate or decided not to participate in the AER program. The survey's primary goal was to identify the main barriers to program uptake and improve program implementation strategies. The survey was sent out to 1,400 customers, 86 of which (6 percent) responded to it.

- ◆ 2 of the 86 survey respondent's responses were incomplete and removed from the analysis, leaving 84 responses.
- ◆ 43 of the 84 survey respondents are participating in AER.
- ◆ 41 of the 84 survey respondents are not participating in AER.
 - ◆ 30 of the 41 customers not currently participating in AER are rebuilding their property.
 - 4 of those 30 respondents are in the design phase of their rebuild.
 - 24 of those 30 respondents are in the construction phase of their rebuild.
 - 2 of those 30 respondents have completed construction of their rebuild.
 - ◆ 4 of the 41 survey respondents who are not participating in AER, report that they are selling their property.
 - ◆ 7 of the 41 survey respondents who are not participating in AER, report that they are not rebuilding their property, are unsure if they are rebuilding, or declined to answer.

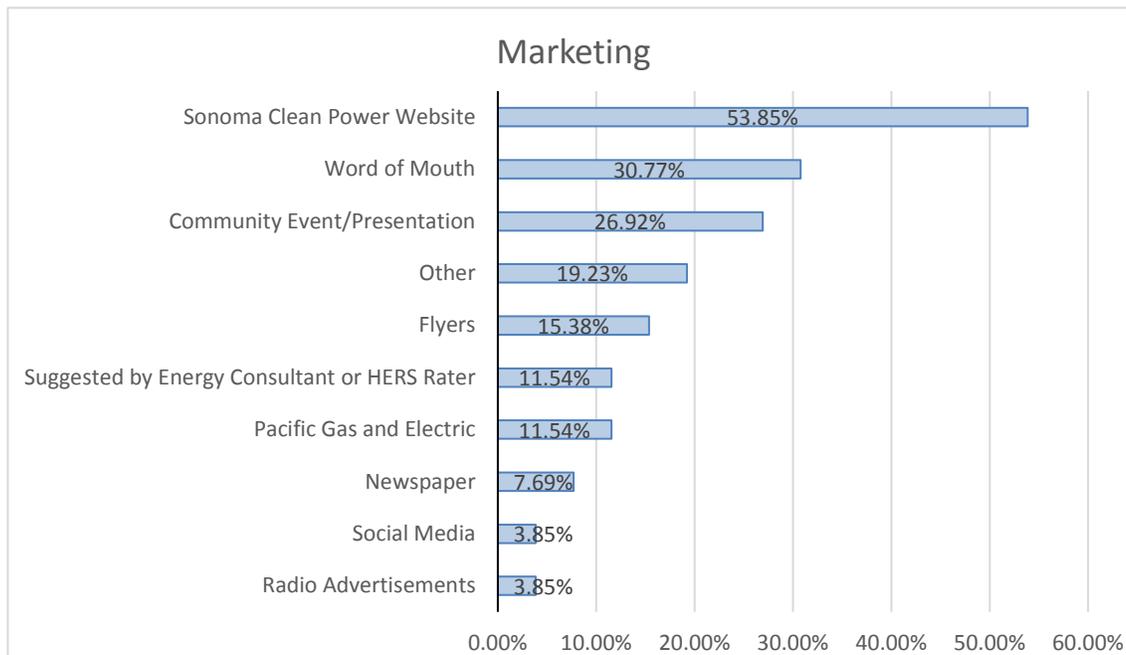
⁵ The delta EDR compares a proposed home's time-dependent energy use to the same home's time-dependent energy use, if it were being built to exactly meet the energy code's prescriptive path. The higher the delta EDR, the more energy efficient the home.

Marketing and Outreach

When asked about whether the customers had heard about the program:

- ◆ 28 of 41 survey respondents not participating in AER reported having heard of AER

The graph below is a breakdown of the marketing source(s)⁶ reported by 26 of those 28 survey respondents. Two respondents noted having heard of AER but did not elaborate on the market source(s).



Survey participants were also asked an optional open-ended question regarding their reason(s) for not participating in the program. 25 of the 28 survey respondents who had heard of AER but were not participating in the program answered this question, with details as follows:

- ◆ 4 of 25 respondents reported that they were too far along in the design process; therefore, they were either unable or un-willing to alter their plans to participate in AER.
- ◆ 2 of 25 respondents reported they had already moved out of the county and/or bought an existing home elsewhere.
- ◆ 5 of 25 respondents reported that the program looked too complicated—specifically, the requirement to hire a Home Energy Rating System (HERS) consultant and certified energy analyst (CEA), among other things.
- ◆ 5 of 25 respondents reported that there were too many requirements to qualify for the program when they were already dealing with too many things.

⁶ “Other” was an open-ended response. “Other” includes, among other things, postcards sent to rental addresses, contacts at SCP, and insurance claimant group sites.

- ◆ 10 of 25 respondents were unsure if the program would be cost effective for them to participate in or not.
- ◆ One respondent specified that their insurance settlement was limited and did not enable them to rebuild.
- ◆ 2 of 25 respondents did not meet the eligibility threshold due to the way they initially planned to rebuild.
- ◆ 2 of 25 respondents reported that they were wary of the fact that participating in the program might amount to a delay in the building process.
- ◆ 3 of 25 respondents reported that they did not want an all-electric house, liked cooking with gas, and also wanted an actual gas fireplace.

To overcome the challenges faced in the initial months of program implementation, the program team has crafted a more targeted outreach to participants and is seeking to reach potential participants earlier in the design process. To strengthen the outreach and recruitment processes, the program is working on the following activities:

- ◆ TRC is designing additional collateral to assist in the recruitment process including:
 - ◆ Program information graphics and fliers,
 - ◆ Program advertisement(s) for local publications or webpages,
 - ◆ Case studies,
 - ◆ Webinars,
 - ◆ Home builder guides, and
 - ◆ Short informational videos to help educate the affected customers about how the program can benefit their rebuilding process in a streamlined manner,
- ◆ In addition to the program materials, TRC is working with Nortek, PG&E, and Energy Watch to assist and support in the following program participation and recruitment activities:
 - ◆ Perform direct homeowner outreach,
 - ◆ Attend and secure industry events and sponsorships,
 - ◆ Organize or participate in local homeowner gatherings,
 - ◆ Coordinate with PG&E's local Energy Watch representative,
 - ◆ Coordinate with local permitting offices and municipal/government officials, and
 - ◆ Track MLS alerts for affected property transactions.
- ◆ Since PG&E customers affected by the 2018 wildfires are outside of SCP's service territory, PG&E will be the sole provider of the incentives offered to these customers through AER. TRC will offer additional research and design assistance activities to accommodate the larger number of expected projects from the expanded AER offering.

**PG&E Gas and Electric
Advice Submittal List
General Order 96-B, Section IV**

AT&T	Downey & Brand	Pioneer Community Energy
Albion Power Company	East Bay Community Energy	Praxair
Alcantar & Kahl LLP	Ellison Schneider & Harris LLP	Regulatory & Cogeneration Service, Inc.
	Energy Management Service	SCD Energy Solutions
Alta Power Group, LLC	Engineers and Scientists of California	
Anderson & Poole	Evaluation + Strategy for Social Innovation	SCE
	GenOn Energy, Inc.	SDG&E and SoCalGas
Atlas ReFuel	Goodin, MacBride, Squeri, Schlotz & Ritchie	
BART	Green Charge Networks	SPURR
	Green Power Institute	San Francisco Water Power and Sewer
Barkovich & Yap, Inc.	Hanna & Morton	Seattle City Light
P.C. CalCom Solar	ICF	Sempra Utilities
California Cotton Ginners & Growers Assn	International Power Technology	Southern California Edison Company
California Energy Commission	Intestate Gas Services, Inc.	Southern California Gas Company
California Public Utilities Commission	Kelly Group	Spark Energy
California State Association of Counties	Ken Bohn Consulting	Sun Light & Power
Calpine	Keyes & Fox LLP	Sunshine Design
	Leviton Manufacturing Co., Inc. Linde	Tecogen, Inc.
Cameron-Daniel, P.C.	Los Angeles County Integrated Waste Management Task Force	TerraVerde Renewable Partners
Casner, Steve	Los Angeles Dept of Water & Power	Tiger Natural Gas, Inc.
Cenergy Power	MRW & Associates	
Center for Biological Diversity	Manatt Phelps Phillips	TransCanada
City of Palo Alto	Marin Energy Authority	Troutman Sanders LLP
	McKenzie & Associates	Utility Cost Management
City of San Jose	Modesto Irrigation District	Utility Power Solutions
Clean Power Research	Morgan Stanley	Utility Specialists
Coast Economic Consulting	NLine Energy, Inc.	
Commercial Energy	NRG Solar	Verizon
County of Tehama - Department of Public Works		Water and Energy Consulting
Crossborder Energy		Wellhead Electric Company
Crown Road Energy, LLC		Western Manufactured Housing Communities Association (WMA)
Davis Wright Tremaine LLP		Yep Energy
Day Carter Murphy		
	Office of Ratepayer Advocates	
Dept of General Services	OnGrid Solar	
Don Pickett & Associates, Inc.	Pacific Gas and Electric Company	
Douglass & Liddell	Peninsula Clean Energy	