

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



Pacific Gas & Electric Company
GAS (Corp ID 39)
Status of Advice Letter 4744G/6919E
As of May 17, 2023

Subject: PG&E's Final Annual Advanced Energy Rebuild Advice Letter in Compliance with
Commission Disposition

Division Assigned: Energy

Date Filed: 04-17-2023

Date to Calendar: 04-19-2023

Authorizing Documents: None

Disposition:	Accepted
Effective Date:	04-17-2023

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:

edtariffunit@cpuc.ca.gov

AL Certificate Contact Information:

Stuart Rubio
(415)973-4587
PGETariffs@pge.com

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
- Subject of Filing
- Date Filed
- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
- Effective Date of Filing
- Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Energy Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Energy Division staff based on the information contained in the Energy Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov

April 17, 2023

Advice 4744-G/6919-E

(Pacific Gas and Electric Company ID U 39 M)

Public Utilities Commission of the State of California

Subject: PG&E's Final Annual Advanced Energy Rebuild Advice Letter in Compliance with Commission Disposition

Purpose

Pacific Gas and Electric Company (PG&E) hereby submits the fifth and final 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-A/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 and 2019 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 AER offerings 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 dispositioned PG&E Supplemental Advice 4068-G/5479-E, which expanded the offering to customers impacted by the Camp and Carr fires of 2017. On January 13, 2020, the Commission dispositioned

PG&E Advice 4194-G/5719-E, which extended AER program eligibility to customers rebuilding to the 2019 Title 24 Code¹.

Per Commission direction, 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. This fifth and final annual Advice Letter meets this requirement, and provides an annual report detailing cumulative program progress, uptake, and lessons learned during implementation as **Attachment A** to this submittal. The data and narrative in Attachment A cover program activity through December 31, 2022.

Due to the anticipated launch of the Wildfire and Natural Disaster Resiliency Rebuild (WNDRR) program², which is managed through the Building Decarbonization Proceeding (R.19-01-011), the AER program closed to new applications in December 2020. Due to supply chain delays caused by the ongoing COVID-19 pandemic, AER projects that remained in the pipeline were completed throughout 2021 and 2022. These projects were all completed, with the program formally sunseting in December 2022. The attached fifth and final Annual Program Uptake Summary Memo (prepared by program implementer TRC) documents the details of all projects completed after May 1, 2022 and includes a review of cumulative program uptake, performance, and lessons learned over the life of the AER offering. PG&E also plans to engage a third-party vendor to conduct a final review of the AER program, with the goal of identifying any additional lessons learned that could support the development of the WNDRR program.

Protests

Anyone wishing to protest this submittal may do so by letter sent electronically via E-mail, no later than May 8, 2023, which is 21 days³ after the date of this submittal. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
E-mail: EDTariffUnit@cpuc.ca.gov

The protest shall also be electronically sent to PG&E via E-mail at the address shown below on the same date it is electronically delivered to the Commission:

¹ PG&E Advice 4194-G/5719-E was submitted in response to the Commission's non-standard disposition of 4119-G/5588-E, which requested an extension of the approved provisions of Advice 3928-G/5219-E, Supplemental Advice 3928-G-A/5219-E-A, and Advice 4068-G/5479-E.

² As approved in D.21-11-002, issued November 9, 2021.

³ The 20-day protest period concludes on a weekend, therefore, PG&E is moving this date to the following business day.

Sidney Bob Dietz II
Director, Regulatory Relations
c/o Megan Lawson
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 and 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 April 17, 2023.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically 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 submittals can also be accessed electronically at: <http://www.pge.com/tariffs/>.

/S/

Sidney Bob Dietz II
Director, Regulatory Relations
CPUC Communications

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 (U 39 M)

Utility type:

☒ ELC ☒ GAS ☐ WATER
☐ PLC ☐ HEAT

Contact Person: Stuart Rubio

Phone #: (415)973-4587

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: stuart.rubio@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) #: 4744-G/6919-E

Tier Designation: 1

Subject of AL: PG&E's Final Annual Advanced Energy Rebuild Advice Letter in Compliance with Commission Disposition

Keywords (choose from CPUC listing): Compliance

AL Type: ☐ Monthly ☐ Quarterly ☒ Annual ☐ One-Time ☐ Other:

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

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: N/A

Confidential treatment requested? ☐ Yes ☒ No

If yes, specification of confidential information:

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: 4/17/23

No. of tariff sheets:

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

California Public Utilities Commission
Energy Division Tariff Unit Email:
EDTariffUnit@cpuc.ca.gov

Contact Name: Sidnev Bob Dietz II. c/o Megan Lawson
Title: Director, Regulatory Relations
Utility/Entity Name: Pacific Gas and Electric Company

Telephone (xxx) xxx-xxxx: (415)973-2093
Facsimile (xxx) xxx-xxxx:
Email: PGETariffs@pge.com

Contact Name:
Title:
Utility/Entity Name:

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

CPUC
Energy Division Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

Clear Form

Attachment A

Annual Program Uptake Summary Memo



10680 White Rock Road, Suite 100
Rancho Cordova, CA 95670

916.844.0146 PHONE

February 14, 2023

MEMORANDUM

To: Conrad Asper (Pacific Gas and Electric Company)
From: Nic Dunfee, Melissa Buckley (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 and 2018, Pacific Gas and Electric Company (PG&E) launched the Advanced Energy Rebuild (AER) program in May 2018, in conjunction with Sonoma Clean Power (SCP), the Bay Area Air Quality Management District (BAAQMD), MCE, and TRC, with TRC as the program implementer. PG&E and SCP extended the enrollment period for AER through 2020.¹ Under this program, TRC provided design assistance, technical review of all projects, processing incentives, reporting, and management of customer communications and marketing.

The deadline to apply for the program was November 15, 2020. Due to project delays caused by the ongoing COVID-19 pandemic, PG&E and SCP extended the construction completion period for AER through 2022. The program required all enrolled projects to complete construction and verification processes by November 15, 2022 in order for TRC to issue the incentive payment by the program end date of December 31, 2022. AER offered incentives for both manufactured homes and homes permitted under the 2016 and 2019 Title 24 energy code as well as both *all-electric homes* and *advanced energy homes* (dual fuel). Customers could choose from the following pathways to demonstrate eligibility for the incentives:

- ◆ **2016 Code Site-built Homes, Flexible Performance Path:** Energy model should demonstrate a 20% improvement in time dependent valuation of energy, as shown on the compliance form document generated by a California Energy Commission (CEC)-approved 2016 Title 24 compliance software
- ◆ **2016 Code Site-built Homes, Simple Menu-based Path:** Incorporate a list of measures, as described in the [program handbook](#),² to qualify and submit an energy model using a CEC-approved 2016 Title 24 compliance software to demonstrate them
- ◆ **2019 Code Site-built Homes, Flexible Performance Path:** Energy model should demonstrate an Efficiency Delta Energy Design Rating (EDR)³ of 1.0 or higher in time dependent valuation of energy, as shown on the compliance form document generated by a CEC-approved 2019 Title 24 compliance software

¹ PG&E Advice Letter 4119-G/5588-E

² AER Program Handbook (2016 code): https://www.cahp-pge.com/AER_TRC_Handbook_2019.pdf

³ The EDR is a whole-house energy efficiency metric in which ratings closer to zero mean better energy performance. EDR is calculated for both the prescriptive, to-code design (known as Standard Design EDR), as well as for the proposed design of a

- ◆ **Manufactured Homes, ENERGY STAR Certified Path:** Build the home to comply with the ENERGY STAR Version 2 or higher certification to qualify

The 2016 code Flexible Performance and Simple Menu-based paths for site-built homes offered an incentive amount of \$12,500 for qualifying all-electric homes, \$7,500 for qualifying advanced energy homes, and an optional \$5,000 incentive for the addition of solar photovoltaics (PV) and battery storage. Projects permitted under the 2016 Title 24 code received 50% of their incentive upfront, and the remaining amount following verification, after the project completed construction. The 2019 code Flexible Performance path for site-built homes offered a qualifying advanced energy home or all-electric home an incentive amount of \$2,500 or \$12,500 respectively and an optional \$1,000 incentive for battery storage. The ENERGY STAR Certified path offered qualifying manufactured homes an incentive amount of \$3,000. All-electric manufactured homes could earn up to \$4,000 more in incentives through bonus options for battery storage, Northwest Energy-Efficient Manufactured Housing (NEEM)+⁴ certification, heat pumps, and induction cooking. Mixed-fuel manufactured homes could earn up to \$2,000 more in incentives through bonus options for battery storage and NEEM+ certification. The program also offered a 50% reduced incentive for qualifying accessory dwelling units (ADUs)⁵ with an option to receive a battery storage incentive for all pathways. AER pays incentives for all 2019 code and manufactured home projects after program staff verify completion of documentation for the completed home.

Program Metrics

The following sections summarize program metrics from program launch on May 1, 2018 through December 31, 2022.

Program Pipeline

- ◆ TRC enrolled 580 eligible projects for a total of 745 dwelling units. The units consist of the following:
 - ◆ 2016 Title 24 code: 392 single family residences, 34 ADUs, and 3 multifamily complexes with 132 total units.
 - ◆ 2019 Title 24 code: 20 single family residences, and 2 ADUs.
 - ◆ Manufactured homes: 164 single family units and 1 ADU.
- ◆ Of the 745 dwelling units, the following received their full incentive:
 - ◆ 408 (45%) units under the 2016 Title 24 code.
 - ◆ 14 (2%) units under the 2019 Title 24 code.
 - ◆ 128 (17%) manufactured homes.

given project (called Proposed Design EDR). The Delta EDR is calculated by subtracting the Proposed Design EDR score from the Standard Design EDR score. A higher Delta EDR indicates a more energy efficient project.

⁴ NEEM Website: <https://www.neemhomes.com/>

⁵ Accessory Dwelling Unit, also known as a casita 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.

Enrollment Data

- ◆ 571 of the 580 total enrolled site-built units (98%) enrolled with the Flexible Performance Path, while 9 of 580 enrolled site-built projects (2%) took the Simple Menu-based Path. The 165 manufactured homes are not included in the total number as they were only required to meet the ENERGY STAR Certified pathway.
- ◆ Of the 745 enrolled units, 170 (24%) built an all-electric home, 575 (77%) built a dual-fuel home.

Completion Data

- ◆ 422 of the 580 total enrolled site-built units completed program participation.
- ◆ 415 of the 422 total completed site-built units (98%) completed the program with the Flexible Performance Path, while 7 of 422 completed site-built projects (2%) completed the program with the Simple Menu-based Path. The 165 manufactured homes are not included in the total number as they were only required to meet the ENERGY STAR Certified pathway.
- ◆ Of the 745 enrolled units, 138 (24%) built an all-electric home, 412 (77%) built a dual fuel home.
- ◆ 128 of the 165 total enrolled manufactured housing units completed program participation.
 - ◆ Of the 128 manufactured housing units that completed the program, 11 (24%) built an all-electric home, 117 (77%) built a mixed fuel home.

Overall Program Savings and Measures

- ◆ Project completions secured a total savings of 34,322.61 in kWh and 89,323.51 in therms (-63.55 kWh and 234.13 therms per home on average).⁶ These numbers include savings for 37 of the 41 manufactured homes that committed to performance savings prior to the collaborative effort between TRC and PG&E to develop a deemed savings approach to claim savings for the remaining homes that pursued the Manufactured Housing pathway.
- ◆ The program enrollment average for kW savings is 2.72 kW. Enrolled projects demonstrated an average delta EDR of 2.04, with projects ranging between -1 to 18 delta EDRs. Many of the all-electric projects enrolled demonstrate negative savings. Savings do not include generation from installed solar PV.
- ◆ The program average at completion for kW savings is -0.06 kW. Completed projects demonstrated an average delta EDR of 4, with projects ranging between -1 to 12 delta EDRs. Many of the completed all-electric projects demonstrate negative savings. Savings do not include generation from installed solar PV.
- ◆ Projects at enrollment demonstrated an average of 24.7% of energy efficiency improvement above 2016 Title 24 code, with project efficiency improvements ranging from 0.07 to 53.3% above 2016 Title 24 code requirements.
- ◆ Projects at completion demonstrated an average of 32.6% of energy efficiency improvement above 2016 Title 24 code, with project efficiency improvements ranging from 0.07 to 53.3% above 2016 Title 24 code requirements.

⁶ Negative kWh savings are driven by all-electric new construction projects.

- ◆ Projects at enrollment demonstrated an average of 7.8% of energy efficiency improvement above 2019 Title 24 code, with project efficiency improvements ranging from 3.2 to 29.3% above 2019 Title 24 code requirements.
- ◆ 151 projects pursued and completed the program with the solar PV and battery storage bonus, totaling an average PV system size of 51.15 kW and an average battery system size of 121.99 kWh. 90 projects installed solar PV but did not install battery storage.
- ◆ 196 projects committed to installing heat pump water heating and 249 installed heat pump space heating. Of the completed projects, 172 installed heat pump water heating and 212 installed heat pump space heating.

All-Electric Program Savings

- ◆ 138 out of 745 (18.5%) of the total enrolled units were all-electric. 92 of the 138 all-electric units (92.75%) were site-built while 10 of the 138 all-electric units (7.25%) were manufactured homes. On average, all-electric site built units achieved 5.1 delta EDR (all projects ranging from 0 to 12) and 24.8% above 2016 and 2019 Title 24 code (all projects ranging from 3.2 to 53.3% above code). These averages do not include the 10 all-electric manufactured housing units, as they are held to Energy Star standards, and were not subject to a Title 24 Code percentage or Delta EDR.
- ◆ Since the energy modeling software does not have an all-electric baseline, such projects yielded a total projected negative savings⁷ of 52,462.34 kWh and positive 6.40 kW savings. The software reported 14,892.93 avoided therms for these projects.

Lessons Learned

The following sections summarize lessons learned from this advice letter period, through the conclusion of program implementation.

Manufactured Homes

As mentioned in the previous AER Advice Letter⁸, many of the manufactured home customers who enrolled/participated do not access the internet and can only communicate by phone. The program team continued to rely on manufacturer and sales representatives to collect the documentation required to process manufactured homes participants' reserved incentives. This allowed the program team to reduce the administrative burden and confusion for the participant in some cases but required more of the manufacturer and sales representatives' time to provide this support to the participants.

Implementation

There were a handful of cases where unforeseen circumstances such as project delays, escalating building material costs, increasing contractor fees, and COVID-19-related delays impacted projects. Offering a single point of contact for participants throughout their participation in the program helped with navigating delays and guiding a project to completion. Many participants hired contractors or energy consultants who became unresponsive to the

⁷ Negative savings are driven by all-electric new construction.

⁸ PG&E Advice Letter 4460-G/6239-E

participants after the design stage. This often required participants to hire other consultants and contractors to perform the work, and ultimately, in some cases, resulted in changes to the initial design. The program extension allowed these customers to continue to be eligible for their reserved incentive considering these construction delays. Such situations, though rare, demonstrate the challenges that face a rebuild program (and its participants) that spans across large, diverse territories. Participants have suffered much loss, and though the implementation of a rebuild program needs to abide by a set of program rules, there is a need to have flexibility and to have the ability to consider situations on a case-by-case basis.

As the program continued to process incentives for participants, many customers were unaware of program requirements for Home Energy Rating System (HERS) rater verification. The program team explained the HERS verification requirements at enrollment and throughout construction. However, homeowners often acted as owner/builders, without much guidance or detail from HERS raters on which verifications the raters would provide. This sometimes cause homeowners to have to hire multiple HERS raters to perform site visits and additional verifications, resulting in increased costs. Additional reminders to homeowners and HERS raters (when known by the program implementer) about HERS verifications may help to avoid this challenge.

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

AT&T
Albion Power Company

Alta Power Group, LLC
Anderson & Poole

Atlas ReFuel
BART

Barkovich & Yap, Inc.
Braun Blaising Smith Wynne, P.C.
California Cotton Ginners & Growers Assn
California Energy Commission

California Hub for Energy Efficiency
Financing

California Alternative Energy and
Advanced Transportation Financing
Authority
California Public Utilities Commission
Calpine

Cameron-Daniel, P.C.
Casner, Steve
Center for Biological Diversity

Chevron Pipeline and Power
City of Palo Alto

City of San Jose
Clean Power Research
Coast Economic Consulting
Commercial Energy
Crossborder Energy
Crown Road Energy, LLC
Davis Wright Tremaine LLP
Day Carter Murphy

Dept of General Services
Don Pickett & Associates, Inc.
Douglass & Liddell
Downey Brand LLP
Dish Wireless L.L.C.

East Bay Community Energy Ellison
Schneider & Harris LLP
Engineers and Scientists of California

GenOn Energy, Inc.
Green Power Institute
Hanna & Morton
ICF

iCommLaw
International Power Technology
Intertie

Intestate Gas Services, Inc.

Johnston, Kevin
Kelly Group
Ken Bohn Consulting
Keyes & Fox LLP
Leviton Manufacturing Co., Inc.

Los Angeles County Integrated
Waste Management Task Force
MRW & Associates
Manatt Phelps Phillips
Marin Energy Authority
McClintock IP
McKenzie & Associates

Modesto Irrigation District
NLine Energy, Inc.
NRG Solar

OnGrid Solar
Pacific Gas and Electric Company
Peninsula Clean Energy

Pioneer Community Energy

Public Advocates Office

Redwood Coast Energy Authority
Regulatory & Cogeneration Service, Inc.

Resource Innovations

SCD Energy Solutions
San Diego Gas & Electric Company

SPURR
San Francisco Water Power and Sewer
Sempra Utilities

Sierra Telephone Company, Inc.
Southern California Edison Company
Southern California Gas Company
Spark Energy
Sun Light & Power
Sunshine Design
Stoel Rives LLP

Tecogen, Inc.
TerraVerde Renewable Partners
Tiger Natural Gas, Inc.

TransCanada
Utility Cost Management
Utility Power Solutions
Water and Energy Consulting Wellhead
Electric Company
Western Manufactured Housing
Communities Association (WMA)
Yep Energy