

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



July 7, 2017

Advice Letter 3853-G/5090-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 Request for CPUC Approval of the Cancellation of
Residential HVAC Subprogram HVAC Code Compliance
Incentive Program Pilot**

Dear Mr. Jacobson:

Advice Letter 3853-G/5090-E is effective as of July 13, 2017.

Sincerely,

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

Edward Randolph
Director, Energy Division

June 13, 2017

Advice 3853-G/5090-E

(Pacific Gas and Electric Company ID U 39 M)

Public Utilities Commission of the State of California

Subject: PG&E's Request for CPUC Approval of the Cancellation of Residential HVAC Subprogram HVAC Code Compliance Incentive Program Pilot**Purpose**

Pacific Gas and Electric Company (PG&E) submits this advice letter (AL) to request approval to discontinue the residential heating, ventilation and air conditioning (HVAC) Code Compliance Incentive Program Pilot (CCIPP). The CCIPP aims to align residential HVAC system replacements with permitting requirements through a unique incentive structure that targets market actors at key decision points common in the change-out process. These incentives are designed to motivate completion of permitting requirements. PG&E requests to close the CCIPP based on three primary considerations:

- Despite aggressive marketing and education campaigns, since its inception in 2014, the CCIPP has experienced very low uptake and thus has not resulted in the desired market effects.
- Recent research (*Draft Report: 2014-16 HVAC Permit and Code Compliance Market Assessment (Work Order 6) Volume I – Report*) has not shown statistically significant differences in energy performance between permitted and non-permitted residential HVAC installations. Without a definitive link between permitting and energy performance, no savings can be attributed to the program.
- Senate Bill (SB) 1414, signed into law after induction of the CCIPP, requires program administrators to collect proof of permit closure and code compliance prior to paying energy efficiency incentives for HVAC measures. PG&E will comply with SB 1414 and thus support HVAC permitting through existing and future energy efficiency programs.

Further detail on PG&E's request to close the CCIPP is provided in Appendix A.

This AL is filed in compliance with California Public Utilities Commission (Commission or CPUC) Decision (D.) 09-09-047, which requires the investor-owned utilities (IOUs) to file an AL to eliminate an energy efficiency program or subprogram.¹

Background

Pursuant to D.12-11-015, OP 7, the Commission ordered the IOUs to propose an incentive program that encourages code-compliant installations of residential HVAC equipment in a Tier 2 AL². The IOUs filed a Joint AL³ seeking approval of their CCIPPs on September 3, 2013, and the pilots were approved effective October 3, 2013.⁴ The CCIPP was subsequently consolidated into a Program Implementation Plan (PIP) addendum to the Statewide Residential HVAC subprogram PIP.

The intent of CCIPP is to align residential HVAC system replacements with code and permitting requirements by encouraging market actors to make compliance decisions through a financial incentive structure that recognizes critical decision points that are common in the change-out process.⁵

Specifically, distributors/retailers are paid by providing proof that the HVAC replacement installed complies with permitting requirements, while customers are paid by providing a finalized permit for the job. Distributors/retailers and customers are allowed to share part or all of their incentives with a contractor. Since contractors do not receive incentives directly, they were encouraged to engage with distributors/retailers and customers to build long-term relationships that encourage permitting. The CCIPP incentive structure also promotes compliance by reducing the costs associated with meeting permitting requirements. PG&E's CCIPP guidelines require the distributor/retailer and the customer to confirm compliance with permitting requirements prior to receiving incentives.⁶ Incentive types and levels are described in greater detail in Appendix C.

PG&E launched the CCIPP in August 2014 in the cities of Fresno, Clovis, and Madera, as well as in the County of Fresno. PG&E proactively performed marketing, education

¹ D.09-09-047, Ordering Paragraph (OP) 43 states, "Pacific Gas and Electric Company...shall not eliminate any energy efficiency program or sub-program except through an Advice Letter seeking such a change;"

² D.12-11-015, OP 7 states, "Pacific Gas and Electric Company...shall propose an incentive program that encourages code-compliant installations of residential heating, ventilation, and air-conditioning equipment in a Tier 2 advice letter by no later than June 1, 2013."

³ SDG&E AL 2516-E/2225-G, SCG AL 2935-E, SCE 2935-E and PG&E AL 3412-G/4281-E – collectively "Joint AL"

⁴ D.12-11-015, OP 7 set an advice filing date no later than June 1, 2013. The IOUs filed a request for a three-month extension on May 1, 2013, which was approved by the Executive Director on May 24, 2013.

⁵ Joint AL, Attachment A.

⁶ D.12-05-015, OP 53

and outreach (ME&O) efforts to encourage CCIPP participation from potential customers as well as the distributors and contractors. A description of ME&O tactics is detailed in Appendix B. Despite continuous efforts to support the CCIPP, the pilot has experienced lower than anticipated participation.

Program Challenges

Three factors led PG&E to conclude that the CCIPP should be closed and that a full scale program would not be in the best interest of ratepayers.

1. The lack of CCIPP uptake demonstrates that an incentive program is not the most effective mechanism to increase permitting rates. Despite continuous efforts to support the CCIPP, the pilot receives notably low participation and is falling short of its objectives. PG&E proactively performed ME&O efforts that targeted potential customers, distributors, and contractors. These endeavors are described in Appendix B.
2. Recent evaluation, measurement, and validation (EM&V) research found no statistical difference in energy performance between permitted and non-permitted HVAC replacements⁷. The study performed an assessment of state permitting and compliance of HVAC replacement installation in residential dwellings in California. Appendix D provides results of electric and natural gas HVAC installation significance testing. Due to the absence of a significant linkage between permitting and energy performance, the prospects to continue workpaper development and energy savings through a resource subprogram based on the CCIPP model are challenging.
3. SB 1414 was approved and enacted September 26, 2016. SB 1414 prohibits IOUs from paying rebates or incentives for energy efficiency upgrades unless the recipient provides proof of permit closure. As such, if a customer or contractor is the recipient of a rebate or incentive offered by an IOU for the purchase or installation of an HVAC system, then the IOU can only provide the rebate or incentive if the customer or contractor provides proof of permit closure.⁸ Therefore, SB 1414 largely addresses the core goals of the CCIPP. PG&E is and will continue to comply with the SB 1414 requirements.

Request

Due to cost effectiveness challenges, demonstrated findings of no statistical significance in energy performance between permitted and non-permitted HVAC

⁷ DNV GL, Draft Report: 2014-16 HVAC Permit and Code Compliance Market Assessment (Work Order 6) Volume I – Report, March 3, 2017. Hereafter abbreviated HVAC_6

⁸ S. 1414 (2016)

replacements, and the enactment of SB 1414, PG&E requests approval to close the CCIPP by July 13, 2017.

The advice filing will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than July 3, 2017, which is 20 days after the date of this filing. 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 PG&E either via 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 B23A
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-1448
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 2 advice filing become effective on July 13, 2017 which is 30 calendar days after the date of filing.

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

cc: Service List R.13-11-005

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

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

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 M)**

Utility type:

ELC

GAS

PLC

HEAT

WATER

Contact Person: Yvonne Yang

Phone #: (415) 973-2094

E-mail: Yvonne.Yang@pge.com and PGETariffs@pge.com

EXPLANATION OF UTILITY TYPE

(Date Filed/ Received Stamp by CPUC)

ELC = Electric

GAS = Gas

PLC = Pipeline

HEAT = Heat

WATER = Water

Advice Letter (AL) #: **3853-G/5090-E**

Tier: 2

Subject of AL: **PG&E's Request for CPUC Approval of the Cancellation of Residential HVAC Subprogram HVAC Code Compliance Incentive Program Pilot**

Keywords (choose from CPUC listing): Compliance

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: D. 09-09-047

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: _____

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: No

Confidential information will be made available to those who have executed a nondisclosure agreement: N/A

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: _____

Resolution Required? Yes No

Requested effective date: July 13, 2017

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 proposed: N/A

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

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

California Public Utilities Commission

Energy Division

EDTariffUnit

505 Van Ness Ave., 4th Flr.

San Francisco, CA 94102

E-mail: EDTariffUnit@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Erik Jacobson

Director, Regulatory Relations

c/o Megan Lawson

77 Beale Street, Mail Code B23A

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

Appendix A

CCIPP Closure Overview

Appendix A: CCIPP Closure Overview

Program Name, Program ID		Code Compliance Incentive Program Pilot, within the Residential HVAC Subprogram (PGE21006)
Implementer		N/A
Budget & Expenditures	2016 Program Budget	\$1,700,000 ¹
	Program Expenditures	\$36,000
	% Budget Spent	2%
Demand Reduction	2016 Program Goal	N/A
	Installed Savings	N/A
	% Savings Goal Achieved	N/A
kWh Energy Savings	2016 Program Goal	N/A
	Installed Savings	N/A
	% Savings Goal Achieved	N/A
Gas Savings	2016 Program Goal	N/A
	Installed Savings	N/A
	% Savings Goal Achieved	N/A
Cost Effectiveness	TRC	0
Primary Justification(s) for Program Closure		<p>1. Cost effectiveness is challenging as CCIPP participation is nominal and the pilot program has not seen an increase of HVAC permitting rates.</p> <p>2. A recent CPUC EM&V study demonstrated no statistically significant increase in code compliance for permitted HVAC installations versus non-permitted installations.² Therefore, it is unlikely that there is a correlation between energy savings and a HVAC code compliance program based on permitting verification.</p> <p>3. The enactment of SB 1414, which requires IOUs by law to validate permit closure before paying energy efficiency incentives, renders CCIPP moot. PG&E will comply with the requirements of SB 1414 and will require proof of permit closure for all equipment that falls under the legislation's purview.</p>
Steps Taken to Improve Program		PG&E proactively performed ME&O efforts to inform market actors and stimulate CCIPP

¹ Joint AL sets PG&E's incentive budget for CCIPP at \$1,200,000. Direct Implementation, Administration and Marketing was planned at \$500,000 for a total budget of \$1,700,000.

² DNV GL, HVAC_6

	<p>participation. Various outreach approaches were targeted towards potential customers, distributors, contractors, and Building Officials.</p> <p>The program application initially required a CF3R, a Certificate of Verification form required by the California Energy Commission as a compliance document for the Third-Party (HERS) verification sign off, to be completed with MCH 20 (duct leakage) and MCH 25 (refrigerant charge) forms. However, upon considering the feedback from participating contractors that most units sold in Fresno are package units that are precharged with refrigerant, precluding the need for the MCH 25 form, the program was altered to only require the MCH 20 form. This enabled the distributors in the Fresno area to submit applications through the program for the packaged HVAC units. The overall participation from the distributors has been very limited in the program that is primarily associated to the lower incentive amounts per their feedback</p>
<p>Lessons Learned</p>	<p>One of the program goals was to deliver a market test to determine the effectiveness of incentives in the decision to permit residential HVAC installation. From the participation and feedback received during the pilot, it is likely that a dramatic increase in incentive payments could result in increased uptake, which is not a scalable or cost effective solution.</p>

Appendix B

CCIPP ME&O Efforts

Appendix B: CCIPP ME&O Efforts

Timing	Target Market Actor	ME&O Tactic	Description
October 2015	Customer	Bill inserts	Distributed over 130,000 bill inserts in pilot area
October - November 2016	HVAC contractors	Direct mailer	Deployed letters followed by reminder postcards to active HVAC contractors in pilot area
July 2016	Customer	Email	Deployed emails to customers in pilot area to remind them of the program benefits and encourage participation
August 2014- Present	Distributors and County Building officials	Educational pamphlets & signage	Provided marketing material to participating distributors and county building officials since program inception
August 2014 - Present	Distributors and County Building Officials	Educational webinars & emails	Developed informative webinars and email communications to encourage distributor engagement in the pilot area

Appendix C

Incentive Types and Incentive Levels

Appendix C: Incentive Types and Incentive Levels

Market Actor	Required Action	Incentive Level
Distributor/Retailer at point of sale	Collect and submit HERS registry unique ID and Compliance Forms (CF-1R) ^a	\$100
Customer	Obtain finalized permit for job	\$200

^a *CF-1F is one of the certificates of compliance filed during the permitting process, other types may apply according to job type and stage of the process; Home Energy Rating System (HERS) ID is the proof that the HERS verification process for the job has been initiated.*

Appendix D

HVAC Installation Significance Testing

Appendix D: HVAC Installation Significance Testing

Electric HVAC Installation Efficacy Rates and Significance Testing³

Region	Group	Sample Size	Weighted Average Electric Energy Compliance	Error Bound (90% CI)	Significant Difference
Inland	Permit	67	69%	±10%	No
	No permit	60	65%	±11%	
Coastal	Permit	25	94%	±14%	No
	No permit	24	87%	±13%	
Total (Inland & Coastal)	Permit	92	70%	±12%	No
	No permit	84	66%	±13%	

Coastal region includes climate zones 1, 3, and 5-7; Inland region includes climate zones 2, 4, and 8-16.

Natural Gas HVAC Installation Efficacy Rates and Significance Testing⁴

Region	Group	Sample Size	Weighted Average Electric Energy Compliance	Error Bound (90% CI)	Significant Difference
Inland	Permit	62	65%	±8%	No
	No permit	52	66%	±10%	
Coastal	Permit	21	52%	±26%	No
	No permit	21	50%	±18%	
Total (Inland & Coastal)	Permit	83	65%	±11%	No
	No permit	73	65%	±14%	

Coastal region includes climate zones 1, 3, and 5-7; Inland region includes climate zones 2, 4, and 8-16.

³ DNV GL, HVAC_6

⁴ Ibid.

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

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