STATE OF CALIFORNIA

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

Edmund G. Brown Jr., *Governor*

Advice Letter 3375-G/4206-E

September 17, 2013

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SUBJECT: PG&E, SCE, SDG&E and SoCalGas Informational Advice Letter Detailing Innovative Residential New Construction Program Designs Pursuant to D.12-05-015

Dear Mr. Cherry, et al:

Advice Letter 3375-G/4206-E is effective as of April 2, 2013.

Sincerely,

Edward Randolph

Edward F. Randolph, Director
Energy Division

Pacific Gas and Electric Company

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April 2, 2013

Advice 3375-G/4206-E
(Pacific Gas and Electric Company ID U 39 M)

Advice 2878-E
(Southern California Edison Company ID U 338-E)

Advice 2469-E/2186-G
(San Diego Gas & Electric ID U 902 M)

Advice 4480-G
(Southern California Gas Company ID U 904 G)

Public Utilities Commission of the State of California

Subject: PG&E, SCE, SDG&E and SoCalGas Informational Advice Letter Detailing Innovative Residential New Construction Program Designs Pursuant to D.12-05-015

Purpose

Pacific Gas and Electric Company (PG&E), on behalf of Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company (SoCalGas),[1] hereby submits for filing this Tier 1 informational advice letter (AL) detailing innovative Residential New Construction program designs from around the country and containing ideas for pilot projects or trials for possible inclusion in the 2013-2014 California Advanced Homes Program (CAHP). The AL is submitted in compliance with Decision (D.) 12-05-015, *Decision Providing Guidance on 2013-2014 Energy Efficiency Portfolios and 2012 Marketing, Education and Outreach,* issued May 10, 2012.

Background

D.12-05-015 directed the IOUs to submit an informational advice letter by April 1, 2013,[2] stating:

[1] Together referred to as the Joint Investor Owned Utilties (IOUs).
[2] This advice letter is being filed on April 2 as April 1 is a California Public Utilities Commission (Commission or CPUC) State holiday.

> The IOUs shall review policies and programs supporting residential Zero Net Energy programs in other states for potential new and innovative program design approaches to increase homeowner demand and marketplace change, consulting with relevant experts in this area. They shall report at least preliminary results in their 2013-2014 applications, and may report more complete findings of this effort through an Informational Advice Letter served on the application service lists no later than April 1, 2013. The IOUs shall identify potential pilot projects or trials to test new program designs that would improve marketplace innovation and engagement and homeowner awareness within the 2013-2014 timeframe" (pg. 211).

Attachment 1 contains the Joint IOUs' response to the Commission's request. The report is divided into two sections. The first section contains the results of a survey of innovative program design ideas from across the country. The second section contains a discussion of possible pilot/demonstration ideas for inclusion in the 2013-14 CAHP.

Protests

In accordance with G.O. 96-B Section 6.2, this information-only filings is not subject to protest.

Contacts

Questions or correspondence related to this advice letter can be submitted to the following contacts:

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Notice

In accordance with G.O. 96-B Section 6.1, this information-only filings is not subject to service, however, as a courtesy a copy of this advice letter is being sent electronically and/or via U.S. mail to parties shown on the attached list and Service Lists A.12-07-001 *et. al.*, and R.09-11-014. This advice letter filing can also be accessed electronically at: http://www.pge.com/tariffs

Brian Cherry /sw

Vice President, Regulatory Relations

Attachment 1: Joint Investor Owned Utilities (IOU) Report of Residential New Construction Program Designs

cc: Service Lists for A.12-07-001 *et. al.* and R.09-11-014

ATTACHMENT 1

Joint Investor Owned Utilities (IOU) Report of Residential New Construction Program Designs

Part 1: Survey of Innovative Residential New Construction Program Designs

A review of programs from other states revealed that there are currently no offerings supporting the design or construction of residential Zero Net Energy (ZNE) homes in a significant or comprehensive way.[3] The California IOUs look forward to taking the lead in developing a first-in-the-nation program in support of ZNE homes over the next several years. Given the absence of any overt ZNE-related programs in the market, the IOUs surveyed innovative program designs from other states promoting the adoption of high-efficiency (though not explicitly ZNE) homes for the purposes of this report.

Design elements of programs aimed at increasing demand for high efficiency new home construction can be broken into two functional categories: 1) design elements aimed at increasing homeowner demand through marketing and training; and 2) design elements aimed at increasing homeowner demand through financial incentives offered to either the builder or buyer of an energy efficient home. This section details unique or best-practice design elements from across the country and Canada in both of these categories.

I. Innovative/best-practice marketing and training approaches

- **Northwest Energy Efficiency Alliance (NEEA) –** The Northwest Energy Efficiency Alliance, a non-profit supported by Pacific Northwest utilities working in support of energy efficiency initiatives in Oregon, Washington, Idaho and Montana, is currently a market leader in terms of the scale and sophistication of its marketing efforts for residential new construction. Their work supports the

[3] There are several ZNE certifications available in the marketplace, but these fall short of what the IOUs consider comprehensive programs aimed at ZNE market transformation. These include: 1) the Department of Energy's "DOE Challenge Home" (this is loosely affiliated with the concept of "ZNE Ready", requiring homes to be 40%-50% better than code), 2) the Living Building Challenge's Net Zero Energy certification (based on building performance data), and 3) the Earth Advantage Institute's "EA Net Zero" and "EA Net Zero Ready" certifications (based on modeled building energy performance).

Northwest Energy Star program, an initiative that provides incentives, training and marketing support to builders, in addition to customer-oriented informational campaigns. According to NEEA program management, their marketing efforts during their nine years of existence have succeeded in raising consumer awareness of the Energy Star Homes brand in the Pacific Northwest to approximately 50 percent.

NEEA's recently revamped website (www.northwestenergystar.com), which caters specifically to the interests of potential buyers of energy efficient homes, stands as the centerpiece of its most recent marketing push. Notable features of the website include:

- The ability for potential homebuyers to take a "virtual tour" of an energy efficient home and learn about the efficient technologies.
- The ability to search for Energy Star home listings, Energy Star builders, and real estate agents who have participated in energy efficiency sales trainings.
- An explanation of the benefits of owning an Energy Star home (financial, comfort, health, environment).
- Case studies of super-efficient homes built in the Northwest.

The website also features a landing page (www.northwestenergystar.com/partners/home-builders/marketing) on which builders, agents and appraisers may access marketing materials to use in selling the benefits of energy efficiency to prospective home buyers. All materials are free to download or order off the website free-of-charge. Available marketing materials include banners, signage, yard signs, callout cards, window clings, and homebuyer brochures.

NEEA actively advertises the benefits of Energy Star homes in media outlets including radio, TV, web and print. Their ads tie together the myriad of benefits stemming from energy efficient homes including comfort, peace of mind, health,

environment, and lower utility bills in clever and often humorous ways. Their ads do not shy away from talking about technical aspects of energy efficiency; some technical jargon, they concluded, can make an energy efficiency home seem "cool" and "advanced" – so long as the jargon is used sparingly. Examples of the ads can be accessed via the following link:
www.northwestenergystar.com/partners/home-builders/marketing

NEEA has also conducted giveaways (in 2010, a Prius; in 2011, $25,000) to prospective Energy Star home buyers as a tool to both recruit builders and promote energy efficiency awareness among the home-buying public. The giveaways served as a tool for builder recruitment in that builders were able to register any of their Energy Star certified homes as a qualifying venue, and any prospective homebuyer who then visited those homes would be automatically entered in the sweepstakes. Even if the prospective homebuyer's original interest in the home had nothing to do with its Energy Star certification, the presence of the sweepstakes gave the builder and agent a convenient platform to sell the individual on the home's energy efficiency features.

In addition to its marketing efforts, NEEA offers extensive training opportunities customized to the interests of the key new home efficiency stakeholder groups: builders, home verifiers, technicians, agents, and appraisers. Their website also features libraries of technical resources catered to the specific interests of each of these groups, including a Cost Calculator that allows builders to estimate their personalized incremental cost for pursuing Energy Star certification.

NEEA's most unique training innovation, however, may be the concept of the "Integrated Design Lab" network. The idea behind an Integrated Design Lab is to have local experts in high efficiency building design available to provide advice and technical assistance to builders during the design phase of construction. The Integrated Design Lab network currently consists of six Labs

geographically dispersed in metropolitan centers across the Pacific Northwest, and often affiliated with universities to leverage the expertise of students and academics. Although the Integrated Design Labs currently only serve new commercial construction, the idea could be extended to the residential space as well. More information on the Integrated Design Lab network may be found at: http://www.betterbricks.com/design-construction/integrated-design-lab-network

II. Innovative/best-practice customer-side financial incentives

The most common approach for incentivizing the construction of new energy efficient homes is to provide incentive payments directly to the builder of the home. There are, however, a few examples of designs that instead provide financial incentives to the *buyer* of the energy efficient home. This incentive delivery model is demand- rather than supply-side oriented and is intended to provide home builders and agents a lever to up-sell the home's energy efficiency features.

- **NYSERDA's New York Green Residential Building Program**

Residents of New York State who purchase new single family homes that are built to Silver level certification (or higher) using either the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) for New Construction (LEED-NC) Rating System are eligible for a $5,125 incentive. The program is also available to multifamily dwellings up to 11 units. Incentives increase as the number of eligible multifamily units increases, to a maximum of $13,375 for an 11 unit residential building. Incentives are paid to the owner of the home on the date that a Certificate of Occupancy is issued; thus, incentives would typically be paid to home *buyers* only for custom-built homes. Home builders typically still own production-built homes at the time a Certificate of Occupancy is issued.

http://www.nyserda.ny.gov/Residential/Builder-Contractor/Green-Homes/Participation.aspx

- **Connecticut Light & Power/United Illuminating Company's Residential New Construction Program**

  Home buyers in Connecticut Light & Power's or United Illuminating Company's service territory in Connecticut are eligible for a variety of new home energy efficiency incentives, including $250-$3,000 for Energy Star certification (exact amount determined by Home Energy Rating System (HERS) score), a $2,000 "Low Load" bonus for single-family homes with BTU/sq/ft values below a set threshold, and various prescriptive measure incentives. Similar to NYSERDA's program, incentives in the Connecticut programs are typically paid to the *owner* of the home—usually the primary resident for custom-built homes and the builder for production-built homes – at the time of application.

  http://www.cl-p.com/Home/SaveEnergy/NewConstruction/Residential_New_Construction/?MenuID=4294985036

- **SaskEnergy's Energy Efficiency for New Homes Program**

  Offers Saskatchewan residents a $1,000 financial incentive for the purchase of a home that is both Energy Star and "R-2000" (a rating system unique to Canada) certified. According to program management, the offering is intended to defray the cost premium associated with energy efficient homes and has resulted in 4,400 Energy Star home registrations and certifications since its inception in 2007.

  http://www.saskenergy.com/saving_energy/energystarnewhomes.asp

- **Ressources Naturelles Quebec**

  Offers Quebec residents a $2,000 financial incentive for the purchase of a "Novoclimat" certified home installed by a Novoclimat-certified home builder.

  http://www.efficaciteenergetique.mrnf.gouv.qc.ca/en/my-home/novoclimat/single-family-homes/savings/

- **Duke/Progress Energy – Energy Star electricity rate discount**

Owners of Energy Star certified homes in Duke Energy service territory (North Carolina, South Carolina) are eligible for an electricity rate 5.4 percent lower than other customers for all energy use beyond the first 350 kWh per month for the lifetime of their home. Energy Star homeowners in Progress Energy service territory receive a flat 5.0 percent electricity rate discount for the lifetime of their home.

http://www.duke-energy.com/pdfs/NCScheduleES.pdf

- **Cedar Falls Utilities 5-Star Home Program**

  Offers customers in Cedar Falls, Iowa, a 25 percent electric rate discount for 4 years (if home is heated with natural gas) or a 25 percent electric rate discount for 2 years (if home is heated with electricity) if the home is built to "Cedar Falls 5-Star" standards, which can be attained through the installation of approximately 20 different prescriptive measures.

  http://www.cfu.net/save-energy/build-5-star-home.aspx

Part 2: Program innovations being considered for inclusion in the 2013-14 California Advanced Homes Program (CAHP)

The statewide CAHP team is planning or considering several program design innovations for inclusion during the 2013-2014 timeframe that will keep the program in its position as an industry leader in cutting-edge program design. The changes being planned or considered include:

- The IOUs are evaluating mechanisms to incorporate the concept of energy use intensity (EUI) targets within the program design. The reason for the interest in closer alignment with EUI metrics would be to take an important initial step toward readying the industry for, and realigning the program toward, California's 2020 ZNE code goal. With indications that the basis for ZNE determination will be tied to some form of EUI metric, incorporating the use of EUI within the CAHP program would be a means not only for training builders

to familiarize themselves with a metric that will become increasingly important as California gets closer to 2020, but also for California policymakers to gain insight into how the metric will be received by the marketplace. Further discussion of this potential pilot element will be ongoing throughout the year.

- The IOUs are planning updates to their incentive levels in 2014 to coincide with the 2013 code update. The Future Code Preparation incentive, the industry's only example of a new construction financial incentive tied explicitly to educating builders about future code-required measures, may be updated so as to be aspirational toward the 2017 code update. The IOUs are also considering updates to the base incentive rates given that builder incremental costs may change under the more stringent code. While the incentive *rates* may change, the sliding scale that rewards higher levels of builder efficiency will not. The IOUs have observed the sliding incentive scale to be a significant motivator toward incremental builder efficiency, and consider it to be a program "best practice". The IOUs are also considering the merits of adding a ZNE element to the program in the future to reward builders who successfully demonstrate that their homes achieve an EUI less than or equal to zero. The incentive/bonus structure for the 2014 program will be an important topic of conversation throughout 2013.
- The IOUs will also evaluate the possibility of offering some type of financial incentive to *buyers* of new energy efficient homes, similar to the models from other programs discussed above. The IOUs are particularly interested in an idea (not yet attempted elsewhere) to tie delivery of the homebuyer incentive to *operation* of the home to high energy efficiency standards over the early stages of home ownership, as measured through end-use metering data. This model would address the hard-to-reach behavioral side of energy efficiency, build in a free program measurement and verification (M&V) mechanism, enable collection end-use data vital in informing future code updates, and be be structured at a level of detail sufficient to provide diagnostic feedback to the builders and their

design teams key regarding building shell and building system performance, and how that performance relates to the home as modeled. This program element would also provide additional documented case studies of ZNE homes: although there is an emerging consensus that ZNE is achievable at scale in the residential market, there remain very few cases where ZNE performance has been documented.

- During the 2010-12 cycle, the IOUs offered financial incentives to builders for pursuing Energy Star affiliation. This method of alignment with Energy Star did not prove to be a significant driver of new builder interest in Energy Star, nor did it encourage or require builders to market around the Energy Star brand.

  For the 2013-2014 cycle, the IOUs have shifted from an incentive-based approach to Energy Star alignment to a strategy based on marketing support. Under this new strategy, the IOUs are offering marketing support/collateral to CAHP builders who successfully apply for Energy Star certification. Credits of $40/single family lot and $10/multifamily unit, redeemable in the form of Energy Star marketing collateral, are awarded to builders who demonstrate compliance with Energy Star standards. This marketing support will provide a valuable resource for builders and sales agents in communications with potential homebuyers, which will help in realizing the value of the home's energy efficient characteristics during sale. The IOUs are currently in the process of working with vendors to design and warehouse a menu of marketing collateral options (yard signs, directional signs, window decals, doormats, bronze plaques, banners, etc.) for builders to choose from, as well as the logistics of a system through which builders can order this material. This system will be fully up-and-running during the summer months.

- The breadth and availability of energy efficiency education and training opportunities offered by the California IOUs for key residential new construction industry stakeholders (builders, designers, architects, realtors, HERS raters,

energy consultants, contractors, etc.) is unparalleled by other states or programs. The IOUs will add to and supplement existing training offerings in 2013-14. Highlights of training offerings relevant to residential new construction in 2013 include:

- 2013 code change preparation trainings (e.g. "Title 24: Where We're Headed with the 2013 Residential Standards").
- A four-part ZNE Home Retrofit series ("Overview"/"Envelope Retrofit Strategies"/"Mechanical System Retrofits"/ "People & Plug Loads").
- Energy consultant trainings on EnergyPro and eQuest.
- Realtor-focused trainings ("Green Home Expertise for Real Estate Professionals").
- Technology-focused trainings (e.g. "Insulation Options for New and Existing Homes"; "Window Selection for New and Existing Homes").

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:	Contact Person: **Shirley Wong**
☑ ELC ☑ GAS	Phone #: **(415) 972-5505**
☐ PLC ☐ HEAT ☐ WATER	E-mail: **slwb@pge.com and PGETariffs@pge.com (Information for all IOUs are listed in the "Contacts" section in the AL.**

EXPLANATION OF UTILITY TYPE

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

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **3375-G/4206-E et al.** **Tier: 1**

Subject of AL: **PG&E, SCE, SDG&E and SoCalGas Informational Advice Letter Detailing Innovative Residential New Construction Program Designs Pursuant to D.12-05-015**

Keywords (choose from CPUC listing): **Compliance, Energy Efficiency**

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

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: **D.12-05-015**

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: **April 2, 2013** 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:

Service affected and changes proposed:

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:

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

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