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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Approval of 2013-2014 Energy Efficiency Programs and Budget (U39M)	APPLICATION 12-07-001 (Filed July 2, 2012)
And Related Matters.	APPLICATION 12-07-002 APPLICATION 12-07-003 APPLICATION 12-07-004

Comments of California Center for Sustainable Energy to Attachment D of Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge

California Center for Sustainable Energy

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I. INTRODUCTION

CCSE is pleased to provide this response to the August 27 *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge* ("scoping memo"). We appreciate the Commission's efforts to balance the need to maintain a critical timeline with the equally important need to ensure that programs are designed in such a way that ensures successful implementation during the 2013-2014 transition period. We further appreciated the continued affirmation provided in the scoping memo regarding CCSE's role in the Statewide ME&O program, and we look forward to the challenging work ahead. We direct this response to Appendix D of the scoping memo, which solicited responses from all interested parties on a range of issues related to the 2013-2014 IOU EE applications. In some question categories, CCSE may not offer responses to all questions posed; however, we do reserve the right to comment on these questions in subsequent filings. Specifically, we focus our responses on questions posed within the following categories:

- Residential Programs
- Regional Energy Network Proposals

II. RESIDENTIAL PROGRAMS

We commend the ALJ and Assigned Commissioner's attention to the details and nuances of the whole house program. As we have noted in previous comments, this program's importance and objectives go far beyond a given IOU's EE portfolio as they are inextricably linked to state energy and climate goals. We continue to think that such a unique and vital program would be best served through administration by a mission-driven statewide entity, as is the case in other states such as Oregon with Clean Energy Works Oregon or Efficiency

Maine, EfficiencyVermont Mass Save in Massachusetts etc.; however we will restrict this response to the questions posed in the scoping memo.

1. *Should whole house (Whole House Upgrade Program and/or REN whole building proposals) programs direct more funding and/or marketing to "hotter" (or "hot-dry") climate zones, where homes tend, on average, to use more energy for cooling? If so, how should hotter climate zones, or an alternative geographic region of smaller or larger scale, be defined?*

While we understand the impetus behind the proposal to "drive Energy Upgrade California inland", CCSE does not believe it would be wise for the Commission to make this an explicit policy for funding incentives within the whole house program. We note, however, that the Commission should make clear to the IOUs that it is absolutely appropriate to target marketing and outreach efforts at specific groups of customers, based on such factors as climate zones and housing stock characteristics of given regions.

Climate zones are not the only factor driving the energy reduction potentials of individual homes. Houses located in hotter climate zones undoubtedly experience a greater number of cooling degree days than those located in milder coastal areas; however, temperature is only part of the equation, with the age and condition of a home also playing a major role in the value proposition of building retrofits.

Development patterns in many parts of the state, have created a condition in which the housing stock of coastal communities is often much older than that of inland areas. For example, the average age of homes in coastal San Diego County is 55 years, while the average age for a house in the eastern portions of the County is just 33 years, indicating a great deal of potential in coastal communities. This pattern is also present to varying degrees in both the San Francisco Bay area and greater Los Angeles region. Such housing characteristics must be taken into consideration along with climatic factors in order to effectively drive participation through strategically targeted marketing efforts.

Another factor that must be considered is the ability and willingness of customers to pay for whole house upgrades. Previous market transformation efforts have shown the majority of early program participants skewed towards customers with significant disposable income. These innovators and early adopters (in the nomenclature of market transformation literature) tend to be concentrated in the state's milder, coastal areas. Therefore, it is conceivable that a strategy focused disproportionately on inland areas may inadvertently miss prime candidates, reducing program participation in this critical stage of market transformation.

Marketing segmentation should be based on a variety of factors including climate zone, energy use, building age and other relevant factors. It requires understanding the customer and providing an aggregate level of understanding to contractors and implementers through actionable data, and building flexibility into marketing strategies so that they can adjust to what is working. In the long-run, the distribution of participation in whole house programs will naturally be driven by the value proposition to homeowners considering enrolling in these programs and that value proposition must be marketed. To the extent that this value proposition is aligned with the cost-effectiveness of the whole house program, CCSE believes market forces are likely to achieve the very goals desired by the proposal to target inland areas. As more households participate in whole house upgrades, costs should come down and the middle of the market sandwiched between early adopters and low-income direct install customer will increase participation over time.

2. *As a market transformation program, does the Whole House Upgrade Program merit greater funding levels for marketing and outreach? If so, why and for how long? How should the Commission determine appropriate funding levels for this program on a statewide basis?*

As a market transformation program in an early stage of market development, the whole house program does require significant resources for marketing and outreach to address the myriad barriers consumers encounter. CCSE cannot say right now how long that extra marketing support could be needed, but as those barriers are reduced, the ME&O budget could reduce commensurately. Such barriers for the consumer currently include (and are not limited to) lack of understanding of the value proposition, high cost, exceptional hassle and time commitment, contractor trust and selection, and comparatively low energy costs especially for natural gas. Additional barriers exist for participating contractor and other market actors that must also be addressed. Setting measurements for these barriers and monitoring their reduction would provide benchmarks for setting ME&O spend. Also, as those barriers are lowered and adoption is increased ratepayer funding can be tapered as contractors and other market actors increase their marketing expenditure.

The Commission's decision to transition the Energy Upgrade California brand, supported by millions of ratepayer and ARRA dollars to promote whole house upgrades for the last two years, to the state's umbrella brand for all demand-side energy management provides an opportunity to leverage statewide ME&O to spend a bit less specifically on whole house ME&O than might otherwise be required, and enables a different marketing mix. For example, funds that might have been spent on advertising in a stand-alone campaign could be allocated to home audit incentives as a form of "sampling" to encourage consumers to try this new service which they do not yet see as valuable and allow them to see it in action.

To realize the full value of transitioning the Energy Upgrade California brand and not choosing some other name, the Commission must give clear direction on the connection it intends to see between the statewide umbrella brand and the whole house program. Keeping a strong connection between whole house concepts and the Energy Upgrade California brand provides a massive opportunity for integrated consumer engagement in 2013-2014 that puts whole house upgrades prominently on a continuum of actionable energy management opportunities for consumers. That opportunity to harness the scale and scope of statewide ME&O combined with the fact that contractors and affiliated market actors are the key sales force for this effort are major reasons why CCSE introduced the idea of aligning the whole house program more directly as an offering of the Energy Upgrade California brand under

CCSE's centralized oversight rather than placing it in the roster of IOU programs during this transitional period. Such a clear arrangement would enable better control of the brand transition from it being viewed as the statewide whole house brand to the statewide umbrella energy management brand and would better fulfill the goals outlined in the Long-term Energy Efficiency Strategic Plan. Importantly to this question, it would enable CCSE to most efficiently utilize ratepayer funds for this statewide priority, leveraging the breadth and depth of the statewide campaign and laddering consumers along a path of energy management towards whole house upgrades.

The Commission could also keep ME&O costs in check for the whole house program by directing the assertive use of market segmentation across territories. Many factors contribute to market potential for upgrades beyond climate zone and housing stock. These include economic conditions and available financing, and the demographics and psychographics of the targeted population. These factors should be considered as a percentage of the total IOU territory and that should determine appropriate funding levels for the program. Not everyone will be able to participate in the whole house programs all at once and marketing dollars should be used to attract customers that are most likely to participate first, while programmatic efforts work to bring costs down and provide a variety of programs to different market segments. Such an approach will move the whole house program along the market transformation curve more effectively over time.

3. *For purposes of utilizing ratepayer funds, how should "whole house" be defined?*

We recognize that there has been some confusion as to what a "deep" retrofit or a "whole house" upgrade should mean. While we do not attempt to formulate a strict definition here, we do note that at a bare minimum a "whole house" retrofit must affect the performance of and interactions between at least two different systems (not measures) of the building. The most important characteristic of a whole house program is that it teaches customers to look at their home's energy usage from a holistic building science perspective. This means performing a full home energy assessment which looks not only at individual aspects of a home, but analyzes how different systems interact with each other to either improve or denigrate the home's energy performance. Recommended measures must also follow this principle and should take advantage of synergies between various measures and systems improvements to maximize the impact of a given retrofit. We caution that it would be unproductive to attempt to strictly define a "whole house" retrofit as one that involves a minimum number of measures or achieves a minimum savings threshold, as every single house is unique and must be approached as such. Similarly in order to drive participation rates, particularly among low-to-moderate income customers, we must allow the definition of a "whole house retrofit" to be loose enough that customers are not faced with an all-or-nothing program offering. Customers need to be given an energy management "roadmap" that allows them to move forward with as many or few measures as their financial situation allows at a given time, with a concrete understanding of what actions they can take in the future to further improve the energy performance of their home. Contractors should work to ensure that this flexibility is achieved in such a way that the right measures are performed in the proper order and that customers understand the need for an ordered approach to their energy upgrades.

4. *Should utility multifamily programs be required to file advice letters or full applications during 2013-2014, once multifamily whole building pilots are approved?*

CCSE has no comment on this issue at this time.

5. *Is TURN's proposal for a cost-effectiveness test for "comprehensive" programs that include valuation of avoiding "cream skimming" through avoiding multiple contractor visits to a building site practical to implement? If so, how? What considerations should the Commission give to such a proposal?*

CCSE appreciates TURN's efforts to encourage more comprehensive retrofits, and believes this proposal does deserve consideration. We are completely aligned on the need for more comprehensive EE programs that minimize "stranded" savings, and we are encouraged at the Commission's explicit move away from single-measure programs to more comprehensive and long-term savings. We agree with the conceptual framework of the proposal insofar as it disincentivizes the IOUs from engaging in "cream skimming." We encourage the Commission to examine this proposal in upcoming workshops related to the whole house program so that parties can flesh out the details and get a better sense of what the impacts of such a proposal would be on the ground.

In assessing any proposed changes to evaluating the whole house program, we urge the Commission not to lose sight of the need for participant flexibility. Homeowners have limited resources and are constrained now more than ever due to the loss of home equity and overall economic recession. As a result, many homeowners are unable to invest $15,000+ in a fully-comprehensive whole house retrofit. However, many homeowners are willing to take steps to reduce their energy usage in ways that fit their budget and which make the most sense for their unique situation. Energy Upgrade California currently has a number of requirements which encourage an sequential approach to efficiency retrofits. By installing measures in a specific order, homeowners can choose to retrofit their homes up to the point they are comfortable with, and allowing customers to incrementally engage in further energy upgrades over time. Thus, flexibility in a customer's ability to choose their level of EE investment is key to ensuring higher levels of participation.

6. *The IOUs provided low, medium, and high participation scenarios for the Whole House Upgrade Program for 2013-2014. Which is the most appropriate scenario to approve and why?*

While we do not at this time have any comments regarding the relationship between the whole house program budgets and the participation scenarios, we offer some relevant facts based on our experience with Energy Upgrade California. Based on the number of retrofits completed between 2010 and 2012, we believe it is reasonable to estimate the number of retrofits for 2013-2014 to be somewhere between the low and medium participation scenario. That said it is quite difficult to choose any one scenario, given that there is currently a multitude of discussions statewide regarding how to better design the program to improve participation rates. Therefore, while we can look at numbers from the previous cycle to make a rough estimate, participation rates in 2013-2014 could be significantly higher if the appropriate changes (such as those made below and those recommended by CBPCA in previous comments) are made to program implementation.

Questions 7-14

CCSE declines to comment on issues related to third-party programs, local government partnerships, and codes and standards at this time.

III. REGIONAL ENERGY NETWORKS

15. *What do you believe should be the primary purpose of the RENs? Various documents, including Commission decisions, party comments, etc., mention delivery of programs at lower cost, filling gaps for government entities, and innovation, as examples. Please comment on the most important goals or criteria for RENs.*

D. 12-05-015 outlines a number of goals and criteria for the RENs, including the provision of missing technical resources for project implementation, inclusion of more public agencies in project implementation, and leveraging other funding sources.[1] We believe that the ultimate goal for the RENs is best articulated in the guidance decision: "We anticipate that the 2013-2014 programs would lead to a series of lessons learned on the appropriate level of local government administration of ratepayer-funded energy efficiency programs."[2] The RENs will provide the Commission with an opportunity to evaluate how energy efficiency programs in California should be most effectively administered. After more than three cycles of

[1] May, 2012. *Decision Providing Guidance on 2013-2014 Energy Efficiency Portfolios and 2012 Marketing, Education, and Outreach*. Pg. 146

[2] *Id*. Page 148

programming under sole IOU administration, 2013-2014 will provide a counterfactual to the concerns delineated in D.05-01-055 that will inform the Commission's guidance for future program cycles beginning in 2015.

16. *Should the BayREN and SoCalREN proposed bundled incentives for single-family or multi-family incentive offerings be available at the statewide level in 2013-2014? If so, should the REN proposed single-family bundled incentive general approach supplement or replace the current IOU Whole House Basic Path incentive?*

As a home performance program implementer, CCSE does not have a strong opinion regarding whose program is implemented statewide. We do however note that there is a great deal of opportunity for customer confusion, conflicting programs, and cannibalization of programming inherent within this proceeding. This is due to the various programs proposed by the IOUs and RENs. While we are highly supportive of the RENs, we strongly recommend the Commission consider the imperative for statewide consistency at the contractor/customer level in its approval of the portfolios and RENs. Regardless of how any given program operates on the "back end", the consumer-facing programs must appear simple, seamless, and unified. We agree with the need to modify the Basic Path in order to provide more flexibility for homeowners and consequently improve participation rates. Any such modifications must achieve the following goals:

- Encourage contractors to expand their current scope of services to include comprehensive energy efficiency solutions
- Enable home performance contractors to provide streamlined solutions for homeowners with limited budgets or limited work scope needs.

The modified program should also contain the following characteristics:

- Testing – Each project must include a BPI-scope test-in and test-out. Incentive value should be awarded for this (even though it is mandatory) to reinforce the value to both contractors and homeowners.
- HVAC Load Calculations, Equipment Sizing, and Quality Installation to ACCA Standards.
- Systems/Combinations of Measures – To encourage the adoption of the appropriate measure "loading order" and deeper/more comprehensive savings, combinations of measures should be awarded incentives whose weighted value is greater than the sum of the individual measure rebates.
- Measures – Individual measures should receive incentive weighted value. Measures should include all currently accepted program measures and should also include additional measures such as variable speed pool pumps, lighting, DHW recirculating pumps, and other energy savings measures not currently offered in the whole house programs (i.e. incorporate IOU stand-alone efficiency measures).

Furthermore, the QA/QC review process must be streamlined such that it:

- Aligns itself with existing standard contracting job development milestones;
- Synchronizes QA/QC on-site review visits to minimize customer touch points;
- Minimizes administrative burdens on participating contractors;
- Maintains administrative oversight of project quality.

17. *How many RENs are appropriate for the Commission to fund at any given time? Should there be a limit?*

The number of RENs should not be arbitrarily limited by the Commission. Rather, as the performance of the SoCal and Bay RENs is evaluated and as additional local governments choose to pursue more independent administration of wide-ranging energy programs via the REN concept, the Commission should determine whether to fund each REN application on a case-by-case basis.

18. *Should successful REN programs be scaled up to implementation at a statewide level? How and on what timeframe?*

Successful REN programs can and should be scaled up to a statewide level in 2015 based on performance metrics such as participation rates and scalability. Regional collaborations of local governments have already shown the ability to coordinate programs across the state through the DOE's Better Buildings program. This type of collaboration should be rewarded and encouraged going forward.

19. *How do the REN program and portfolio offerings maximize the state's investment in efficiency in ways that are not already adequately accomplished? Which program elements, or subprograms, are the RENs uniquely positioned to offer?*

The RENs are in a unique position to proactively pursue and leverage outside funding opportunities along with ratepayer funds to accomplish deeper and longer-lasting energy savings with higher participation levels than the IOUs have historically achieved. Local governments have a unique combination of abilities and responsibilities that drive the imperative to achieve these energy savings with much more urgency than any shareholder incentive mechanism can provide.

20-21. *How should the RENs be overseen, and how should RENs and CCA programs be evaluated by the Commission?*

D.12-05-015 lays out the framework for REN oversight. Ordering paragraph 35 states, "Commission Staff shall conduct and/or oversee the evaluation of any local government pilots selected, in a manner consistent with the process set forth for evaluation of utility programs in Decision 10-04-029 and other decisions."[3] Ordering paragraph 36 states, "Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company,

[3] *Id.* Page 404

and Southern California Gas Company shall contract for selected regional pilots and Commission Staff shall serve as a joint contract manager in the contract."[4] Thus, it should be clear that any local government proposal for a REN shall be evaluated by Commission staff who may approve or deny funding for the proposal. The Commission will then direct the respective IOU to contract with the selected REN for the scope of programs contained in the approved proposal. Commission staff will then oversee and evaluate the performance of the REN in the same manner as an IOU. IOU oversight must be limited in order for the Commission to truly evaluate the "appropriate level of local government administration of ratepayer-funded energy efficiency programs."

22. *Should the Commission authorize the use of ratepayer funds for green building certifications, as proposed by SoCalREN? If so, why, and at what level?*

Certifications for energy performance can be important drivers of energy efficiency program participation. CCSE believes that this may be appropriate to the degree that such certifications focus on the energy performance of a building. However, it would not seem appropriate to use ratepayer funds to award certifications for buildings that do not achieve any significant level of energy performance. In fact, subsidizing "green" building certifications for buildings that do *not* exhibit significantly higher-than-average energy performance characteristics may be counter to the goal of ratepayer funding insofar as it sends the message that a building can be "green" without being energy-efficient.

23. *Should the Commission authorize scholarships for contractor trainings in the area of Whole House via the RENs (i.e., in some geographic areas of the state only)? If so, what level of subsidy is appropriate and why?*

CCSE declines to comment on this matter at this time.

[4] *Id.*

24. *Is it appropriate to allocate energy efficiency funds for solar thermal for domestic hot water heating and pool heating measures (as proposed by BayREN)? Why or why not?*

CCSE supports programming that seeks to better integrate all energy management technologies, including solar water heating and PV into the whole house approach to energy programs. It is not entirely clear to us that the best way to do so would be to utilize EE funds to directly incentivize solar thermal domestic water heating which has its own incentive programs; however, we strongly believe that these technologies must be included in the marketing, education and outreach components of such programs. It is crucial that contractors understand how to facilitate the integration of solar thermal applications with other energy efficiency measures and educate customers about these options and associated incentives. This, after all, is the entire goal of *Integrated* DSM.

25. *Is it appropriate to use ratepayer funds to subsidize whole house audits (as proposed by BayREN and SoCalREN)? If so, at what level and with what requirements? Would it be appropriate to approve incentives for audits only at a regional scale (via the RENs) and not statewide? Why or why not? Finally, would ratepayer-subsidized audits be scalable or not, and what might be the cost and/or participation implications be?*

It is indeed appropriate to use ratepayer funds to subsidize whole house audits, as this is a crucial component of marketing and outreach that helps drive market transformation in this sector. While up-front, fully subsidized ratings may be appropriate in the very short-term in order to build awareness and education among homeowners around whole-house energy concepts, we believe a more strategic form of subsidy would be useful going forward. For example, the subsidy could be designed such that it incentivizes the customer to move forward with an energy upgrade by providing 50% of the audit cost up-front, and only offers to cover the remaining portion upon the signing of a contract for an upgrade. Such subsidies should be phased out over time such that homeowners do not begin to undervalue home performance audits in the future and refuse to pay for them once the subsidies are phased out.

It would not be appropriate to offer such incentives only in specific regions. In order to achieve the necessary scale and impact to meet the state's energy and climate goals, these programs must have as many resources and tools as possible to drive participation throughout the state. Subsidized home audits can be a highly important and effective driver of this participation. The Energy Upgrade California statewide marketing, education and outreach campaign could be a very effective channel to promote home energy audit incentives and the importance of whole house program offerings to consumers.

26. *Should ratepayer funds be used to train contractors to market or promote whole house incentives (as proposed by BayREN) or should funds be directed to cooperative marketing for contractors or a similar area?*

Ratepayer funds should absolutely be used to train contractors to market and promote whole house incentives. Contractors are the primary sales force for these programs and it is crucial that they be educated in such topics as building science as well as "soft" skills such as marketing and communications. It is important to note that there must be funding for *both* training contractors to market these programs *and* to develop and implement cost-effective cooperative marketing approaches, as one must come before the other. Additionally, resources should be made available to support these cooperative marketing schemes in their initial stages in order to ensure their successful entry into the marketplace.

Questions 27-28

CCSE declines to comment on reporting requirements for RENs and administrative cost issues at this time.

IV. CONCLUSION

CCSE thanks the Commission for the opportunity to respond to the many thoughtful questions contained in Attachment D to the *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge*. We look forward to continuing engagement with the Commission and other parties in order to ensure the successful launch of California's 2013-2014 transition portfolio.

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