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Pacific Gas & Electric Comments on the Draft SB 350 Barriers Study

Additional submitted attachment is included below.

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**POSTED ELECTRONICALLY TO
DOCKET 16-OIR-02**California Energy Commission
Dockets Office, MS-4
Docket No. 16-OIR-02
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket 16-OIR-02: Pacific Gas and Electric Company Comments on the Draft Staff Report Regarding Barriers and Solutions to Energy Efficiency, Renewables and Contracting Opportunities Among Low-Income Customers and Disadvantaged Communities

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the California Energy Commission's (CEC) draft staff report, *A Study of Barriers and Solutions to Energy Efficiency, Renewables, and Contracting Opportunities Among Low-Income Customers and Disadvantaged Communities* (Barriers Study).

PG&E is a strong proponent of energy efficiency, renewable energy, and has a long history of providing assistance to our customers with the greatest need. We recognize and appreciate the time and effort put in by CEC staff to draft this study. Generally, the study does a good job in identifying the barriers to greater penetration of clean energy and contracting alternatives for these customers, although more attention should be focused on recent activities in this arena instead of relying on a study that utilizes somewhat outdated feedback. PG&E's comments focus on providing greater balance to the comments and offer additional clarity around these issues. Furthermore, numerous solutions may already be in place to address these barriers and the study should acknowledge the work done to date to address the concerns and that some time is needed for customers to adopt these measures and incorporate them into decision making.

Key points of PG&E's comments include:

- The Barriers Study must be clear in how it is defining the communities to be served by these proposed solutions,
- The need for low-income assistance programs is independent of the renewable and energy efficiency targets and should not be subjected to normal cost-effectiveness measures,
- On-bill financing and repayment programs are essential solutions to addressing the "split incentive" barrier,
- Other innovative programs like these are needed to provide incentives for customers to bring their homes to existing code and to exceed the code, and

- Any additional efforts to address barriers should not duplicate existing measures, given this would unduly increase customer costs.

I. Use Clear Definitions and Focus on California-Specific Data When Available

While the Barriers Study is fully focused on “Disadvantaged Communities,” a clear and consistent definition for the phrase does not appear in the document. To make the study of barriers and the proposal of solutions as consistent and effective as possible, the CEC should put forth a clear definition of “disadvantaged community.” In addition to lacking a clear and consistent definition of what a disadvantaged community is, the Barriers Study appears to conflate communities that are disadvantaged from an environmental justice perspective and those which are disadvantaged from an economic perspective. This viewpoint is echoed in the cited Los Angeles Department of Water and Power (LADWP) comments in the Barriers Study¹. Disadvantaged communities should be defined as ones in which at least 20% of households in a Census tract are considered to be in poverty, per Federal guidelines.

Additional challenges around unclear disadvantaged community terminology stem from the widespread use of CalEnviroScreen (CES) to determine program eligibility. CalEnviroScreen is a powerful, well-intentioned tool but it is not the right tool to identify economically disadvantaged communities. This determination would be better left to measures from the US Census Bureau, State Finance Department, or an alignment with California Alternate Rates for Energy (CARE) income eligibility (200% of Federal Poverty Level). CES identifies a subset of disadvantaged communities (i.e., *environmentally impacted* disadvantaged communities), which should not be confused with the broader universe of disadvantaged communities. Using CES, and the associated conflation of community types, in creating programs and solutions, results in missing qualified disadvantaged communities, especially in very rural areas.

The Barriers Study is very thorough in evaluating existing literature and data sources but often cites national-level statistics on matters where California-specific low-income information is available. Specifically, the Drehobl and Ross² and Evergreen Economics³ studies that are repeatedly cited in the Barriers Study are both excellent sources of California low income data. The Low-Income Needs Assessment (LINA) performed by Evergreen Economics is a legislatively-mandated study performed on behalf of the California Public Utilities Commission (CPUC) that is currently being updated for a December 2016 release which is and will continue to be a reliable and detailed source of data that would be helpful in informing this work on a state level.

II. Numerous Solutions to Address the Identified Barriers Are Already In Place and Simply Need Time for Customers to Adopt

¹ Scavo, Jordan, Suzanne Korosec, Esteban Guerrero, and Bill Pennington. 2016. *A Study of Barriers and Solutions to Energy Efficiency, Renewables, and Contracting Opportunities Among Low-Income Customers and Disadvantaged Communities*. California Energy Commission. Publication Number: CEC-300-2016-009- SD. Pg. 43

² Drehobl, Ariel and Lauren Ross. 2016. *Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities*.

³ Evergreen Economics. 2013. *Needs Assessment for the Energy Savings Assistance and the California Alternate Rates for Energy Programs, Volume 1: Summary Report, and Volume 2: Detailed Findings*.

The Barriers Study identifies numerous obstacles as well as solutions to address those issues. PG&E discusses those obstacles below and also notes that many new program features have been recently adopted to address these barriers.

The CEC asked three questions of parties at the workshop. They were: 1) *Are there any important barriers that are not identified in the draft study?* 2) *Are there any important solutions that are not identified in the draft study?* and, 3) *What would you identify as high-priority recommendations the final study should include to address these barriers?*

As explained below, the Barriers Study captures the important barriers that may have impeded increased penetration of these programs. Numerous solutions, which generally fall into policy/program or financial solutions, are also set forth in the draft study and PG&E agrees that many of these solutions have been recently implemented. Generally, PG&E recommends that these solutions be given the time to take root and that care be exercised to ensure that any new program enhancements do not compete or conflict with what is already in place, or that are currently being addressed in CPUC proceedings.

III. Policy and Program Barriers and Potential Solutions

A number of programs are already successfully addressing barriers to renewable adoption. The need for additional ratepayer-funded work to further these successes in economically-disadvantaged communities may be limited and careful consideration should be taken to minimize duplicative efforts. Additionally, investor-owned utilities (IOUs) have a successful 40-year track record of administering a variety of energy efficiency programs that have resulted in significant energy and bill savings for customers. The following comments clarify programmatic details and underscore existing work to address barriers in disadvantaged communities.

A. Program Administration

PG&E agrees with the assertion on page 44 of the Barriers Study that “another potential solution is to consider evaluating program administration and selecting optimal administrators can improve program performance.” However, PG&E disagrees with the remainder of this section which implies that only a non-utility administrator can optimally meet various program goals.⁴ Some programs might be best administered by a non-utility organization but there are many programs that have been demonstrated to be optimally run by the utility, including the Multifamily Affordable Solar Housing (MASH) program.

Furthermore, when a program is using ratepayer dollars, as opposed to taxpayer dollars, several issues must be considered when evaluating which entity is best suited to administer a given program.

First, having a non-IOU statewide administrator may have additional costs and burdens for both the statewide administrator and the IOUs as additional integration is needed to ensure

⁴ Scavo, Jordan, Suzanne Korosec, Esteban Guerrero, and Bill Pennington. 2016. *A Study of Barriers and Solutions to Energy Efficiency, Renewables, and Contracting Opportunities Among Low-Income Customers and Disadvantaged Communities*. California Energy Commission. Publication Number: CEC-300-2016-009-SD. Pg. 44

that ratepayer funds are being properly transferred and utilized. The additional cost of administering the third-party contract falls either to the utility funding the program or to the CPUC. The administrative budget may be stretched and program implementation could be delayed if the CPUC or utility has to design the request for offer, conduct the competitive bidding process, negotiate contract terms with the winner, and provide oversight of the contract.

Second, the contract with the third-party administrator would be governed by contract law, not the regulatory authority of the CPUC, possibly making the third party less responsive to CPUC direction. Should the program need modification, there is no contractual obligation for the third party to cooperate. On the other hand, IOUs are obligated to comply with CPUC direction.

Third, the most successful renewable and energy efficiency programs will be seamlessly integrated with low-income outreach, the interconnection process, and rates and tariff information and advice. Customers could be confused because the third-party administrator would be the customer's contact for certain program elements, but the utility would necessarily be the point of contact for others. More critically, the third party administrator cannot access tenant information, nor can the building owner, without the tenant's agreement. The utility is in the best position to manage the relationship with the tenant, because we already have such a relationship.

Finally, the program information may not be as rich with third-party administration. The third party will only collect and provide data within the context of contractual compliance, while the utility has access to, and can include, other information. The utility will also remain under CPUC jurisdiction long after the program has ended. This means that the long-term measurement and evaluation of the program will be easier. It also means that program evaluation can continue for the life of the installation (in the case of renewable distributed generation), long after the program has ended and the third party administrator has moved on to other work.

B. Rebate Administration

The next potential solution for program administration proposed to “make rebate programs more convenient to use”.⁵ The Barrier Study states:

“An additional solution to consider is how to make rebate programs easy to use so that they offer speedy reimbursements. McKibben (2013) argues that ‘every aspect of the rebate process, including application processes, forms, and protocols for determining the rebate amounts for multi-utility measures, should be considered from the customers’ perspective and made as simple as possible.’”

PG&E would like to point to statements made by an active MASH contractor regarding incentive payments and program administration in Phase II of the NEM Successor Tariff Proceeding, specifically the portion concerning implementation of the new Multifamily Affordable Housing Solar Roofs program created by AB 693. Everyday Energy states:

“An important additional point, which may be much less evident to those not down in the trenches of operating within the program, is that it is easier to get paid an incentive when

⁵ *Ibid.*

the money is with the utility. With SCE and PG&E once an incentive has been approved they release the incentive money in the MASH Program. With CSE, once a project has been approved by the CSE inspector, CSE is required to validate the VNM allocations with SDG&E and then has to invoice SDG&E to receive money to then pay the host customer. This process can be burdensome and take a long time. Also, there seems to be inherent conflict between a third party administrator and the utility that is responsible for paying out rebates in the MASH Program, who each have different incentives in the process. It can lead to overly exacting paperwork requirements.”⁶

Everyday Energy’s statements illustrate another tradeoff that must be considered when policymakers are evaluating which entities should administer ratepayer funded programs and offer concrete evidence for utility administration.

Additionally, the IOUs are exploring new energy efficiency program and implementation strategies as part of the CPUC’s EE rulemaking R.13-11-005 (*Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluations, and Related Issues*). IOUs will file Business Plans on January 15, 2017 that will detail program administrators’ plans for statewide administration, third party implementation and other modified and new energy efficiency strategies, with a mind to making programs easy for customers to access, lowering costs for customers, market actors and program administrators, meeting SB 350’s goals to double energy efficiency by 2030, and focusing on market transformation⁷.

IOUs are working with a diverse group of stakeholders through the California Energy Efficiency Coordinating Committee (CAEECC)⁸ soliciting feedback on the strategies and tactics outlined in the Business Plans. PG&E recommends this forum to discuss opportunities to “make rebate programs more convenient to use.”

C. CARE Flexibility

Another potential solution for policy and program barriers discussed in the Barriers Study regards “CARE flexibility.” The CEC specifically points to IREC’s proposed program “CleanCARE” as an example that might be utilized to overcome the “rate setting and regulatory challenges” barrier.⁹ PG&E has several strong reservations regarding the viability of such a program.

The first and most important concern is that CleanCARE would constitute an illegal use of CARE funds as the current statute does not permit the usage of CARE funds for any purpose beyond the provision of a discount on CARE customer bills.

Second, the complex billing structure that requires a CARE customer to save as much as they would have on their CARE bill or more under CleanCARE would require a high degree of

⁶ Everyday Energy’s Comments and Proposal on Administrative Law Judge’s Ruling Seeking Proposals and Comments on the Implementation of Assembly Bill 693 p. 29

⁷ D.16-08-019. <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M166/K232/166232537.PDF>

⁸ <http://www.caeec.org/>

⁹ Scavo, Jordan, Suzanne Korosec, Esteban Guerrero, and Bill Pennington. 2016. *A Study of Barriers and Solutions to Energy Efficiency, Renewables, and Contracting Opportunities Among Low-Income Customers and Disadvantaged Communities*. California Energy Commission. Publication Number: CEC-300-2016-009-SD. Pg. 48

administrative oversight and IT system upgrades that would detract from funding available for solar projects. To ensure necessary savings, participating customers would need to be continually evaluated to determine whether savings under CleanCARE were as large as they would have been if they remained on CARE, and switching between a CARE rate and a standard retail rate would need to occur for each participating customer depending on the findings of every evaluation. This complexity would very likely confuse customers and require a large deal of administrative spending, which could likely do more good under another, less complicated program.

Third, CleanCARE would allow for free-wheeling of power by providing full retail rate credits for power generated off-site, exacerbating the cost-shift to non-participating customers.

D. Insecure Program Funding

The assertion on page 49 that “ESA has unclear statutory authority after 2020” is false. Legislation does not state that the Energy Savings Assistance (ESA) Program will end after 2020. The current programmatic initiative is “to provide all eligible customers the opportunity to participate in the Low Income Energy Efficiency programs and to offer those who wish to participate all cost-effective energy efficiency measures in their residences by 2020” but does not say that the program will then stop.¹⁰ Funding for low-income programs has no end date and the Barriers Study should reflect this.

E. Data Limitations

Given the extensive data collected by IOUs, PG&E seeks more specificity as to exactly what “better data collection” would improve program design. PG&E is supportive of data-driven efforts to target programs and increase their effectiveness and has been engaged with CEC staff throughout their efforts under Assembly Bill (AB) 802. The Barriers Study, similar to the draft AB 802 regulation calls for access to “whole-building data.” Please refer to PG&E comments on the draft regulation regarding the existence of such a dataset.¹¹

F. Energy Savings Assistance Program Language Clarification

Language regarding the ESA Program that appears on page 63 of the Barriers Study should note that in addition to the weatherization services available to low income customer households, the ESA Program also provides lighting, appliances and energy education. Additionally, language should be modified to reflect that bridge funding was extended through December 31, 2016:

“CPUC Decision 15-12-024 authorized **bridge funding for** the investor-owned utilities to spend up to 50 percent of their 2015 authorized budget (nearly \$391 million) to continue the ESA Program from January 1, 2016, to June 30, 2016 (CPUC, 2015). **Decision 16-06-018 authorized another bridge fund for the period July 1, 2016 to December, 31, 2016**

¹⁰ CPUC D.07-12-051, December 24, 2007, and the California Long term Energy Efficiency Strategic Plan (June 2, 2008), p.2-21.

¹¹ http://docketpublic.energy.ca.gov/PublicDocuments/15-OIR-05/TN212766_20160812T134124_Pacific_Gas_and_Electric_Comments_PGE_Comments_on_AB_802_PreRul.pdf

of up to 50 percent of 2015 funding, or approximately \$195 million, to continue ESA pending authorized funding for the next program cycle.”

G. Multifamily Affordable Solar Housing (MASH) Program Clarification

The MASH program has been successful in overcoming many of the existing barriers as discussed in the Barriers Study. PG&E and many other stakeholders continue to push for enhancements to the Multifamily Affordable Housing Solar Roofs program (enabled by AB 693) based on learnings from MASH. Recommended changes include ensuring that tenants receive a greater proportion of benefits from the installed photovoltaic (PV) system, increasing energy efficiency measures undertaken by building owners participating in the program, improving the workforce training and local hiring portion of the program, and ensuring that declining solar PV costs are taken into consideration to better distribute incentive dollars to the benefit of low-income customers.

However, the Barriers Study could be more balanced in its reporting on MASH. For example, the Barriers Study references the 2015 Navigant CSI and Program Administrator Assessment study, focusing on areas that are critical of the program administration structure, while omitting reference to program successes discussed in the same document.¹² Furthermore, given the Navigant Study relies on program information for the years 2011 to 2013, some of its findings may be outdated. The MASH program re-opened in 2015 after it was granted more funding via Assembly Bill 217. In addition to renewed funding, the bill introduced additional programmatic enhancements including a workforce training requirement. Numerous other benefits of the MASH program are not referenced, as noted below, and should be added to the Barriers report.

Using program administration as an example, the Barriers Study states, “The 2015 Navigant CSI Market and Program Administrator (PA) Assessment suggests improving the effectiveness of program administration by making staff roles and communication challenges more clear and by having a single point of contact for installer questions and requests.” However, the Barriers Study fails to note alternative views, like those recently expressed by a current MASH solar developer expressed satisfaction with the current PAs.¹³ These more recent comments may be more reflective of the current program, particularly given the 2015 Navigant Study relied on information gathered in 2011 to 2013.

It is troubling the Barriers Report contains no reference to Navigant’s finding in the CSI Market and Program Administrator Assessment that the MASH program has met the four stated goals:

- Decrease electricity use and costs without increasing monthly household expenses for affordable housing building occupants.
- Stimulate the adoption of solar power in the affordable housing sector.

¹² Navigant Consulting, Inc., California Solar Initiative SASH and MASH Market and Program Administrator Assessment, Programs Years 2011-2013.

¹³ Everyday Energy’s Comments and Proposal on Administrative Law Judge’s Ruling Seeking Proposals and Comments on the Implementation of Assembly Bill 693 p. 29

- Improve energy utilization and overall quality of affordable housing through the application of solar and energy efficiency technologies.
- Increase awareness and appreciation of the benefits of solar among affordable housing occupants and developers.”¹⁴

This information should be added to the Barriers Report.

The MASH program has also helped overcome pre-existing barriers to renewable distributed generation; the most obvious being financial barriers. The 2015 Navigant CSI SASH and MASH Impact and Cost-Benefit Analysis study shares that, “One installer described how the MASH program has made solar sufficiently affordable to non-profit customers and helped the installers create a niche market that is focused exclusively on affordable housing. The installer added that the MASH incentives have helped projects move forward that would not have been possible without the rebate.”¹⁵

Another obstacle was the inability to share generation benefits from a rooftop PV system on a multifamily affordable housing building. With the advent of the MASH program came a tariff, known as Multi Family Solar Housing Virtual Net Energy Metering (MASHVNEM), which allows the generation of a PV system to be split among multiple customers. Although this tariff has been demonstrated to create a larger cost shift to non-participating ratepayers when compared to the already sizable cost shift from standard NEM customers, PG&E has maintained that this tariff should be used as a way to incent PV adoption among low-income multifamily housing, so long as it adheres to other applicable tariff rules.

The split incentive barrier has also been partially addressed by the MASH program. By offering a higher \$/Watt incentive for those projects that will help to offset tenant load, and reduce tenant bills, the MASH program has helped encourage the installation of PV projects that not only help save a building owner money, but also helps to lower bills for low-income customers. To safeguard tenants’ savings, an affidavit signed by the building owner ensures that tenants will not be charged for the PV generation nor have their utility allowance adjusted negatively.

Although the program is not perfect, it has been successful in incenting solar installations on multifamily affordable housing, with authorized funds being reserved rapidly upon the program’s reopening. The success of the program has even precipitated a new and similar program; the Multifamily Affordable Housing Solar Roofs program (AB 693).

H. California Solar Initiative (CSI) Thermal Program

The Barriers Study is correct in identifying the CSI Thermal program as successful in overcoming barriers in disadvantaged communities. Updates are needed to page 15 of the Barriers Study to reflect recent program modifications to improve penetration and adoption with low-income customers and in disadvantaged communities. In October 2015 the CSI-Thermal PAs, in

¹⁴ CSI SASH and MASH Impact and Cost-Benefit Analysis, Program Years 2011-2013, p. 97

¹⁵ *Ibid.*

coordination with the CPUC and the California State Department of Community Services and Development (CSD), expanded the program's handbook definitions covering low income qualifications for program participation. The program expanded to include customers participating in the Low-Income Weatherization Program (LIWP) and Low-Income Home Energy Assistance Program (LIHEAP), thereby better aligning with CSD's own efforts to serve low-income customers with efficiency solutions and prequalifying suitable low-income candidates for inclusion to the CSI Thermal program. The changes have made it easier for CSD to identify eligible households through LIWP or LIHEAP, since CSD has access to a database of LIWP and LIHEAP-eligible housing in California. This, in sum, is intended to expand participation in the CSI-Thermal program.

IV. Solutions to Financial Barriers Have Recently Been Implemented and Need Time for Customers Adoption

The Barrier Study does a good job in identifying the proposed solutions to financial barriers. It presents an exhaustive list of options and considers inventive approaches to complex problems. PG&E supports the exploration of creative solutions to persistent barriers, especially those specific to low-income communities. The following comments provide detailed feedback on specific proposed solutions.

A. On-Bill Financing (OBF)

OBF is a loan that IOUs make to a customer to install energy efficiency investments. The loans are subsidized through ratepayer funds and are offered at 0% interest. OBF is available to customers with non-residential meters, which can include common areas and other landlord-controlled portions of multifamily facilities. As highlighted in the CPUC Low Income proceeding, PG&E continues to look for opportunities to enhance OBF offerings to support low-income customers.¹⁶

In California, OBF specifies that the loan is due when the customer closes their IOU account; it does not 'stay with the property'. The concept of OBF staying with the property or 'runs with the meter' was explored in the Energy Efficiency Finance proceeding at the CPUC.¹⁷ While utility services 'run with the meter,' typical loan repayments would not be automatically transferable to subsequent owners. PG&E is interested in exploring opportunities to support multifamily and low-income tenants with products that incentivize renewable energy investments while providing the appropriate safeguards for all ratepayers.

Additionally, the Barriers Study should distinguish between On-Bill Financing, as defined above, and On-Bill Repayment (OBR), which allows loans from third-party lenders to be repaid through the utility bill. Since it uses third-party funds, OBR is more flexible and scalable than OBF, and may be better suited to many of the solutions presented in the Barriers Study.

¹⁶ Proposed Decision A-14-11-007. <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M166/K086/166086980.PDF>

¹⁷ D.13-09-044; D.15-06-008; D.15-12-002

B. Split Incentive

PG&E recognizes the challenges of the “split incentive” for increasing energy efficiency in multifamily and low-income communities. The Barriers Study suggests modifications to the current OBF program that warrant more discussion and exploration. The CEC should convene a workshop that explores appropriate finance options for multifamily and low-income communities. PG&E supports studying modifications to OBF to better address split incentive challenges; however, financing programs should remain distinct from performance-based incentive payments to landlords and other parties. Incorporating payments to landlords into the OBF repayment would unfairly burden tenants, interfere with the program’s bill-neutrality requirement, and may pose additional legal challenges.

C. Targeting Affordable Multifamily Housing

The Barriers Study is very correct in asserting that multifamily housing has distinct challenges and needs its own approaches at times. However, multifamily housing is not the only barrier for low-income populations. Being a renter, regardless of building type, is a significant barrier to low-income customers and solutions to target all rental populations should be considered. Additionally, the title of this Barriers Study section could be construed as though 43% of low-income Californians live in affordable multifamily housing when in fact only about six-percent live in multifamily housing that is deemed affordable.

D. Technical Edits need to clarify the Barriers Study

On page 18 of the Barriers Study, an update is needed to footnote nine. It currently references the 2010 Statewide Policy and Procedures Manual. Footnote 9, and the Barriers Study itself, should be updated to use information from the most recent California Statewide Energy Savings Assistance Program Policy and Procedures Manual (July 2013), adopted in CPUC D.14-08-030.

To avoid potential misinterpretation, PG&E recommends removing the following statement from the Barriers Study: “[R]atepayer assistance programs and other utility subsidies reduce the savings of energy retrofits. This discourages low-income customers’ participation in energy upgrade programs (other than no-charge direct install programs), since customers receiving ratepayer assistance would experience a reduced economic benefit from such upgrades.”¹⁸ This assertion is troubling and could easily be misconstrued to advocate for the removal of subsidies to low-income customers. Effective, essential programs that benefit low-income customers should not be sacrificed to further the penetration of renewables or energy efficiency and language that could be used to advocate for such should be considered with great caution.

V. The Need for Low-Income Assistance Programs is Independent of Renewable and Energy Efficiency Targets and Should not be Subjected to Normal Cost-Effectiveness Measures

¹⁸ Scavo, Jordan, Suzanne Korosec, Esteban Guerrero, and Bill Pennington. 2016. *A Study of Barriers and Solutions to Energy Efficiency, Renewables, and Contracting Opportunities Among Low-Income Customers and Disadvantaged Communities*. California Energy Commission. Publication Number: CEC-300-2016-009-SD. Pg. 19

While the cost effectiveness of energy efficiency and/or renewable measures are considered throughout the Barriers Study, the document fails to note that there are not cost effectiveness (CE) goals for ESA. CE tests are run for the program but ESA has never been required to be cost effective. Additionally, ESA's CE tests include consideration of non-energy benefits (NEBs). Accordingly, language should be added to distinguish this.

NEBs have been a consideration in ESA CE tests for many years. A study to update NEBs was proposed for the next ESA program cycle and was included in the recent CPUC proposed decision and alternate proposed decision. When considered in ESA CE tests, NEBs are considered from the utility perspective as well as the program participant perspective. Considered factors include arrearages, avoided costs, comfort, health, and safety. Underscoring the relative importance of NEBs and the difficulty in quantifying the criteria, ESA CE is not required to meet a 1.0 cost-benefit threshold.

For additional details on this important element of serving low-income customers and on NEBs considered by investor-owned utilities (IOUs), the following studies would be helpful additions to the extensive literature resources considered by the CEC for the Barriers Study:

- Skumatz Economic Research Associates and Cadmus. 2010. *Non-Energy Benefits: Status, Findings, Next Steps, and Implications for Low Income Program Analyses in California*, Prepared for SDG&E, SCG, PG&E, SCE
- TecMarket Works, Skumatz Economic Research Associates, and Megdal and Associates. 2001. *Low Income Public Purpose Test (LIPPT) Report*, Prepared for RRM Working Group Cost Effectiveness Committee, San Francisco, CA.

NEBs are further discussed on pages 49 and 52 of the Barriers Study and should be recognized as existing considerations in CE tests in those instances as well.

Furthermore, as part of the Integrated Distributed Energy Resources (IDER) proceeding, R.14-10-003, the CPUC is exploring appropriate CE tests for distributed energy resources, to include energy efficiency, demand response, and distributed generation. PG&E recommends coordination with this proceeding for any proposed modifications to CE for demand-side management programs. However, specific CE tests for the CPUC low-income programs are being developed in the Low Income Proceeding (A.14-11-007 et al.).

VI. Conclusion

PG&E appreciates the opportunity to comment on the CEC's Barriers Study, and looks forward to continuing to collaborate with staff as the implementation of SB 350 advances.

Sincerely,

/s/

Wm. Spencer Olinek