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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Concerning
Energy Efficiency Rolling Portfolios, Policies,
Programs, Evaluation, and Related Issues

Rulemaking 13-11-005
(Filed November 14, 2013)

**PACIFIC GAS AND ELECTRIC COMPANY (U 39 M)
RESPONSE TO ADMINISTRATIVE LAW JUDGE'S
RULING RE COMMENTS ON PHASE II WORKSHOP 3
(STATEWIDE AND THIRD PARTY ENERGY
EFFICIENCY PROGRAMS)**

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I. INTRODUCTION

Pacific Gas and Electric Company (PG&E) appreciates this opportunity to file comments on Workshop 3 – *Statewide and Third Party Energy Efficiency Programs* i, which was held on March 23, and 24, 2015, pursuant to Administrative Law Judge's Ruling Re Comments on Phase II Workshop 3 (Statewide and Third Party Energy Efficiency Programs) issued April 1, 2015 (Ruling).

The two day workshop focused on a series of questions posed to Program Administrators (PAs) and stakeholders designed to understand what Statewide (SW) Programs and Third Party Programs look like today, and what they might look like in 2016 and beyond.

The Ruling directed the parties to focus on actionable recommendations for the year 2016. PG&E recommends a laser-focused examination of the policy issues, and the California Public Utilities Commission (Commission or CPUC) should first consider updating rules and policies, before changing the current, successful energy efficiency (EE) program model. As was highlighted at the workshop by various stakeholders, including the Natural Resources Defense Council (NRDC) and Charles Goldman from Lawrence Berkeley National Laboratory, many of California's EE current policies represent significant barriers to scaling EE and achieving the state's aggressive EE and carbon reduction goals.

For 2016, PG&E recommends the following critical initiatives that will position PAs and the state of California to meet the next level of EE.

1. PG&E recommends moving towards a customer focused portfolio, eliminating the “Third Party” funding categorization, and consolidating local and regional “third party” programs into Residential, Commercial, Industrial, Agricultural, Public and Cross-cutting Programs. Within each market sector, PG&E would continue to leverage third party vendors as delivery channels to implement and/or provide program management support for a variety of programs, as is current practice. This concept is consistent with the Joint Proposal for developing sector based Business Plans within the Rolling Portfolio, as presented at Workshop 1.

2. Allow PAs to offer solicitations throughout 2016, beyond Innovative Designs for Energy Efficiency Approaches (IDEEA 365), to drive continued technological innovation and enhanced market strategies.

3. Provide the policy framework that would allow PAs to test innovative ways to procure EE as a resource, such as pay-for-performance pilots, which represent a cost-effective way to achieve significant savings potential.

4. Approve a water-energy cost effectiveness methodology in the Water-Energy Nexus OIR (R.13-12-001) to allow PAs to evaluate measures and activities that save water and energy, while continuing to meet portfolio cost effectiveness metrics. Alternately, the Commission should add a cost-effectiveness adder for water measures in this proceeding effective until the water-energy nexus proceeding is complete.

5. Prioritize and expedite the resolution of Phase 3 policy issues to: 1) allow PAs to capture all cost-effective energy savings including operational, below code and behavioral savings; 2) align the cost-effectiveness methodologies with California’s state policy goals; and 3) adopt a framework to appropriately evaluate Market Transformation initiatives to reflect net market impacts.

PG&E provides more details on its actionable recommendations for 2016 in its responses below.

II. DISCUSSION

A premise of the third workshop and certain of the questions posed in the Ruling, appears to be that problems in the statewide and third party programs require intervention and resolution. Following the workshop, the Commission issued the long-awaited 2010–2012 Energy Efficiency Evaluation Report, highlighting the achievements of the investor-owned utilities' (IOUs') EE programs from 2010-2012. The report finds that "utility energy efficiency activities between 2010 and 2012 resulted in enough energy savings to power nearly 800,000 homes for a year and cut carbon dioxide emissions by 5.3 million tons, the equivalent of removing more than 1 million cars from California's roads."^{1/} The report also concludes that the IOUs' combined portfolios had a cost-effectiveness (total resource cost test (TRC)) of 1.31, including Codes and Standards, and resulted in a "total savings of \$3.275 billion dollars for the life of the measures installed and the actions taken during the program cycle."^{2/} The IOUs continued these achievements in their 2013-2014 portfolios.^{3/}

While there is always room for improvement in the IOUs' programs, there was no analysis or data presented at the workshops to indicate that the IOUs' statewide or third party programs should be overhauled. Neither additional statewide standardization nor bidding of the administration of programs for customer segments, as proposed by the Office of Ratepayer Advocates (ORA), appears warranted. In fact, as some commentators pointed out, some of the challenges in administering the programs are rooted in Commission policies that will be addressed in Phase 3 of this proceeding.

Challenges identified at Workshop 3 included insufficient focus on light-emitting diode (LED) lighting and HVAC, an inability to utilize a "pay for performance" approach to energy

^{1/} CPUC Press Release, *CPUC Report Highlights Energy Efficiency Results*, April 8, 2015.

^{2/} *2010-2012 Energy Efficiency Evaluation Report*, p. 13 (March 2015).

^{3/} See Ruling, Attachment entitled *California Statewide Energy Efficiency Programs*, pp. 8 – 11.

efficiency savings due to the existing counting rules, and an inability for third parties to bid innovative measures. Commission policy directs market actors to target additional HVAC savings potential; however, as currently calculated, the total resource cost (TRC) results indicate there is little societal benefit to doing so. The Commission should consider whether TRC is the metric that best aligns with state policy goals.

PG&E agrees with Greentech Leadership Group's view that use of meter data has potential to unleash greater levels of innovation; however, the Commission's baseline policy must be addressed before this methodology can be used.^{4/} PG&E also agrees that implementers and new entrants should be able to propose new innovative ideas. For this reason, PG&E is developing a process to solicit ideas for innovative measures while still providing a centralized quality control process. New measures would, however, need to follow the appropriate Commission review and approval process before they could be used in the portfolio.

The EE industry in California has grown over 40 years from utility employees conducting simple energy audits, to a vibrant program that includes a vast array of market actors, allowing PG&E to intervene in the market at the right points, with the right EE services, technologies, products, and incentives to meet unique customer needs. PG&E's portfolio supports a vibrant ecosystem of market actors including local contractors, local governments,^{5/} trade professionals, retailers, distributors, manufacturers, energy services companies (ESCOs) and other market actors who allow it to intervene in the market at the most effective points to obtain energy savings.^{6/}

Facilitating Integrated Demand Side Management: As California considers better ways to maximize demand-side management programs, including through the current Integrated Demand Side Resources Rulemaking (R.14-10-003) and Distributed Energy Resources Rulemaking (R. 14-08-013), it is clear that integration is critical to the success of the IOUs'

^{4/} See Ruling, Greentech Leadership Group Presentation, *Pay for Performance: Efficiency 2.0*.

^{5/} More than 50 cities, counties, and regional governments are working with the IOUs to deliver energy efficiency programs. *2010-2012 Energy Efficiency Evaluation Report*, p. 15.

^{6/} See Ruling, pp. 27-28.

demand-side management programs. Disaggregating programs at this stage would disrupt this complex ecosystem and limit the ability for California to truly consider and deploy EE as a resource to increase reliability, affordability, and carbon reduction. EE must be integrated as part of the larger utility system, taking into account an evolving distribution grid, customer rates and bill impacts, infrastructure requirements, and other critical needs. There were no compelling data presented at the workshop to “cleave off” a portion of the IOUs' EE programs.

New statewide program opportunities: The PAs – working through the various statewide teams – should explore means to help customers and vendors work across territories to ease program participation and mitigate duplication of effort. PG&E supports a national partnership for upstream and mid-stream programs to help the state increase EE through improved market penetration and transformation.

Eliminate Third Party (3P) Program designation: PG&E recommends moving away from the construct of “Statewide Programs” and “Third Party Programs” in favor of a holistic market sector approach that includes statewide initiatives with local and regional activities. Program funding categories should be condensed in favor of the following categories: Residential, Commercial, Industrial, Agricultural, Public and Cross-cutting. Within each market sector, the IOUs would continue to leverage third party vendors to implement and/or provide program management support for a variety of programs.

Ability to conduct ongoing solicitations: It is important that PAs have the authority to conduct solicitations on an on-going, as needed basis. The IOUs, should be authorized to issue competitive solicitations as needed to fill gaps in program offerings, leverage innovation, meet savings goals, increase portfolio cost-effectiveness and add additional implementers where needed to meet overall portfolio objectives.

Improvements in the solicitation processes: PG&E is open to a structure like Southern California Edison Company's (SCE's) local capacity resource request for offers with its associated policy structures. PG&E is also open to use of an independent evaluator as is used in

energy procurement solicitations, as proposed by ORA, and other ideas to make the Peer Review Group (PRG) or other solicitation processes more effective.

PG&E appreciates the clarification provided in the Ruling that the IOUs can continue their IDEEA 365 solicitations. (Ruling, p. 7.) Further, PG&E supports a residential pay-for-performance pilot that we understand NRDC will propose in its workshop comments. This pilot design has the potential to facilitate comprehensive upgrades while simultaneously minimizing implementation costs through leveraging private capital.

Critical Water-Energy Savings: PG&E will continue to significantly leverage its statewide Commercial, Industrial, Agricultural and Residential programs to help customers reduce water and associated energy use in response to the drought and the Governor's call to action. These programs offer scale, structured engagement framework and the flexibility to add new measures and partnerships to expand support for water conservation projects. PG&E is considering several initiatives including adding pre-rinse spray valves to its Regional Direct Install programs. As part of this initiative, PG&E is exploring cost share agreements with water agencies to offer the measure at low-cost/no-cost to the customer. In addition, PG&E is working on an Emerging Technologies (ET) project with the University of California at Davis and East Bay Municipal Utility District (EBMUD) to evaluate energy savings, including savings from gas water heating and distribution system pumping, associated with their 2013 pilot of home water reports. Initial evaluations by EBMUD indicate a 5% reduction in water savings per household. Other water/energy savings initiatives PG&E intends to explore include developing new deemed appliance measures and using incentive programs to promote condensing economizer and boiler blow down controller measures in the Industrial and Food Processing sectors. These and other measures should be continued and improved in 2016 to help utility customers save water and energy in response to the state's drought conditions.

III. RESPONSE TO QUESTIONS IN ADMINISTRATIVE LAW JUDGE RULING

2.1 Statewide Energy Efficiency Programs

2.2.1. Current implementation approach of IOU Statewide programs

Q.1: *On the supply side, utility-owned generation projects have been required to compete “head-to-head” with independent power producer bids in RFOs. Could/should that same approach be taken in energy efficiency portfolios?*

PG&E strongly supports leveraging the broad, independent EE marketplace through competitive solicitations. Below, PG&E discusses the parallels and necessary distinctions between solicitations for energy procurement and EE. PG&E then discusses some challenges to review when considering the solicitation of administrative services.

Procuring Implementation Services

There are strong parallels between solicitations for energy procurement and those for EE. The majority of EE activities are implemented through partnerships with implementers and other service providers. PG&E’s presentation at Workshop 3 provides examples of its extensive leveraging of implementation and support services obtained through solicitations.^{7/} There are also necessary distinctions; including the need for aggregation services and the need to determine a baseline from which to calculate savings and determine the cost-effectiveness of a bid. The impact of calculating saving on portfolio structure is described in response to 2.2.4 Q1 below.

Both supply and demand-side solicitations request bidders to specify technology, location, pricing model, and price. For example, on the procurement side, there are distinct solicitations for different types of generation products, such as large scale renewable energy, baseload renewable generation, intermittent renewable generation and storage. Integration of renewable energy is also driving the need for a new dispatchable flexible ramping capacity product. These are each procured separately, because the different products and services are needed in different quantities and available at different price points. EE policy guidance has similarly pressed for comprehensiveness in the breadth of offerings through definition of customer classes, geographic locations, and technologies. In order to obtain competitive pricing

^{7/} See Ruling, pp. 27-28.

and meet the breadth of policy guidance, administrators specify the key features of a solicitation (e.g. customer class, technology, location, pricing model and price).

The IOUs should continue leveraging all actors in the EE marketplace, including third party implementers, trade professionals, energy service companies as well as sophisticated customers acting directly, to achieve cost effective EE savings. The distinction between core and third party activities complicates soliciting implementation activities. Eliminating this distinction, as discussed in more detail in the answer to 2.3.2 Q3 below, would help address this issue.

Procuring Administrative Services

Charles Goldman's March 24th workshop presentation provided useful information about other states' administration of energy efficiency programs.^{8/} First, while many different administrative models are workable, a transition from one administrator to another is a difficult endeavor that takes significant time and is disruptive to the marketplace. Also, in instances when administration has been outsourced to a third party, there have not been other bidders after the second bidding cycle. For example, although Vermont's third party administrator was initially chosen through a competitive bidding process, after the second bidding cycle, there were no any alternative bidders competing to provide the administrative services. Vermont then decided to create a regulated utility for providing EE services. They were not able to maintain the use competitive bidding to obtain improvements in administrative efficiency.

One can also look at outsourcing the portfolio from the perspective of the two identified challenges or problems: cost effectiveness and innovation.

During the March 24th workshop, SCE mentioned that its Local Capacity Requirement (LCR) request for offers (RFO) enabled an apples-to-apples price comparison, but was not necessarily an appropriate avenue for soliciting innovation; therefore the LCR RFO model is best used as a mechanism for increasing cost effectiveness. PG&E is open to a structure like SCE's

^{8/} See Ruling, Attachments, *Energy Efficiency Program Administration: Options and Issues*, Charles A. Goldman, Lawrence Berkeley National Laboratory (Mar. 24, 2015).

LCR RFO, which was supported by ORA, TURN, and NRDC at the workshop. PG&E would support similar structure on a number of policy elements that need defining in a solicitation, including the cost-effectiveness metrics used (e.g. TRC, Program Administrator Cost (PAC), etc.), the baseline selection and savings measurement techniques and measurement and verification protocols. Note that this may not be different from the “Procuring Implementation Services” model above unless the functions needed to count savings are also outsourced. PG&E is open to use of an independent evaluator as is used in energy procurement solicitations and other ideas to make the PRG or solicitation processes more effective.

Q.2: Are statewide programs designed to support efficiency measure pathways to code adoption in coordination with the IOUs’ Codes and Standards advocacy? A) If not, should they be?

Yes, PG&E’s portfolio of programs takes a life-cycle approach to measures and actively supports measure pathways to code adoption. New delivery approaches or advanced technologies are frequently evaluated for portfolio readiness within the ET program. ET and Workforce Education and Training (WE&T) programs are designed to overcome technical, deployment or workforce barriers to introducing new EE technologies and measures. ET tests new delivery approaches or advanced technologies for portfolio readiness. Marketing, Education and Outreach (ME&O) and Financing are designed to support the uptake of new EE measures. PG&E’s Codes and Standards program reviews EE measures in the program arena for code readiness. Below, PG&E provides some examples of how programs have supported measures in their “pathway to code” or industry standard practice.

The California Advanced Homes Program (CAHP) and the new Code Readiness offering support key strategic plan goals and specific anticipated 2016 Title 24 Measures. CAHP incentives were designed to promote adoption of future code measures in near Zero Net Energy (ZNE) construction and build statewide capacity to use these new techniques; these are promoted through incentives for these above-code measures in high performance buildings.

The Upstream Lighting Program has been successful in supporting adoption of a LED Quality Spec which is planned for a future Title 20 appliance standard. In two years, the program helped increase the number of manufactures adopting the LED Quality Spec from zero to 10 plus.

For downstream applications, technology measures can be introduced into the portfolio in the custom program until volume is sufficiently high. Savings calculation approaches are then standardized, allowing for introduction as a deemed measure. Once a measure becomes deemed, PG&E will typically reduce rebate levels over the measure's deemed lifecycle until rebates are no longer needed to support adoption and the product is ready to be adopted by code.^{9/}

- b. *Does the business plan concept proposed by the joint stakeholders incorporate a "pathway to code" concept?*

Yes. The joint stakeholders' business plan concept, as presented in Workshop 1, provides "pathway to code" transparency through the Sector business plans. The business plans are designed to provide better transparency to long term strategic efforts and link short term initiatives to mid and long-term goals. The business plans would provide insight into the major end use savings potential in market sectors and subsectors, and identify the intervention strategies that are proposed to tackle this savings potential. Further, for key end uses, the business plan would outline how the programs are supporting technologies and market actors through the product lifecycle, eventually leading to code and or market transformation.

The business plan, together with the long term outlook on funding, improves the visibility and commitment to the connection between early ET activities, resource program activities and full adoption in code, industry standard practice and general market practices.

^{9/} For example, the exterior induction fixtures started as a custom measure prior to 2010. Then, after the measure was introduced as a deemed measure, the rebate was lowered from \$100 to \$90 to \$50 to \$40/fixture. This rebate reduction reflects the measure's declining incremental cost. PG&E anticipates that this measure will be industry standard practice soon, and after that occurs, the measure will no longer receive PG&E incentive support.

2.2.2. Should We Standardize Current Statewide Programs?

Q.1: *Should we standardize current statewide programs across Program Administrators (PAs)?*

The current structure of statewide programs, which offers a framework for consistency and collaboration amongst PAs and market actors, and the flexibility needed to meet state policy goals and diverse customer needs, is the right approach for California and should be continued.

Currently, the IOUs administer ten statewide programs that cover every market sector and customer type. The statewide programs provide a standardized framework within which to design and implement programs, with similar rules, intervention strategies, incentive levels and other program elements. However, the statewide programs are sufficiently flexible to meet local and regional needs. The background of how we ended up with this structure is helpful to explain why it should be retained.

In D.09-09-047, the Commission approved twelve statewide programs^{10/} for the 2010-2012 program cycle to align with the 2008 Long Term Strategic Plan. The Commission also approved smaller programs for each utility "to meet unique conditions in its service area."^{11/}

The Commission later directed the IOUs in D.12-11-015 to continue the statewide programs and sub-programs established in D.09-09-047 with some modifications, including establishing a new Lighting Program, eliminating the HVAC and New Construction Programs in favor of subsuming these into their respective market sectors and/or cross-cutting programs, consolidating several subprograms, and finally establishing a statewide Finance Program.

The Commission provided further clarification on expectations for statewide consistency by requiring the IOUs coordinate statewide offerings in such a way to ensure similarity in program name, incentive levels, delivery mechanism, and marketing. In addition, the Commission required inter-IOU coordination, coordination with Commission staff, state, local

^{10/} Residential, Commercial, Industrial, Agricultural, New Construction; Lighting Market Transformation; HVAC; Codes and Standards; Emerging Technologies; Workforce Education & Outreach; and IDSM.

^{11/} D.09-09-047 at p. 7.

and federal agencies and other key market actors, and the sharing of best practices and lessons learned. This coordination continues to exist today.^{12/}

PG&E supports a statewide framework to create consistency and efficiency while allowing PAs the flexibility to innovate and be locally-focused in product and sales techniques. Standardization of a statewide framework offers certain benefits such as providing a broadly available set of measures and consistent approaches to meet custom needs. It provides a consistent framework for customers, contractors and other key market actors to understand how to participate in the various PAs EE programs. It allows customers to directly access incentives or other market actors such as third party implementers, ESCOs, trade professionals, architects, designers, contractors and others to access them on behalf of customers. It furthers efficiency by creating common processes, measure savings values, custom calculation processes, and incentive ranges. Despite pockets of differences, statewide program incentive rates, offerings, and eligibility guidelines are mostly consistent statewide. While the programs are largely aligned, fundamentally, customers are local, and administrators require the flexibility to adapt to best serve their needs.

PG&E supports a statewide umbrella with enough standardization to minimize customer confusion and duplication of efforts that does not precluded implementation with opportunities for a tailored, localized approach.

PG&E leverages the statewide framework and fine tunes it to meet local and regional needs to meet the diversity of its customer base.^{13/} The current portfolio covers all customer segments, across all technology families, and uses a variety of market intervention strategies from upstream rebates targeted at manufacturers and distributors to buy-down the cost of the product for the end-use customer, to downstream incentives.

^{12/} D.11-04-005, OP 3.

^{13/} PG&E covers 70,000 square miles in Northern and Central California, and serves 15 million people served, or 5% of the U.S. population. Its customer base is extremely diverse with over 80 languages spoken throughout, covering very rural to urban communities, with a diverse agricultural and industrial base. PG&E's territory includes all but one of the world's climate regions – tropical rainforests.

Standardization can, in some instances, limit innovation and market transformation. Requiring fully standardized programs would require all PAs to agree upon and prioritize ideas, limiting what we could accomplish separately. Currently, PAs are able to test intervention strategies, program design approaches, incentive levels, and other program elements, and share lessons learned and best practices for other PAs to build upon and scale successful activities. One PA may be better prepared to test or lead a specific effort than another. For example, PAs are testing various activities within the Residential Plug Load and Appliances (PLA) subprogram, such as the Retail Plug-load Portfolio (RPP) trial. The statewide umbrella provides certain parameters that PAs work within, but allows for sufficient variation to innovate.

One workshop participant requested more standardization among in the statewide programs. To address such concerns, the PAs have significantly improved program design, incorporating stakeholder feedback, and providing the right level of statewide consistency that allows customers, contractors, and other market actors to more easily participate in the full breadth of our portfolio of EE programs. Energy Upgrade California® Home Upgrade (Home Upgrade) represents a good example of our recent efforts towards standardization. This statewide program has several implementers and stakeholders and requires extensive coordination to ensure consistency, integrate regional lessons learned and best practices, and to minimize market confusion. PAs have been working to further coordinate and streamline offerings to enable ease of participation for these multiregional market actors. This includes aligning customer and contractor program eligibility requirements, incentives and measures, and data collection.

Fundamentally, EE must be integrated as part of the larger utility system, taking into account an evolving distribution grid, customer rates and bill impacts, and infrastructure requirements, and other critical needs. In a completely standardized framework, IOUs would be hindered from leveraging the full EE value as part of a necessary integrated approach.

PG&E has a Targeted Demand Side Management (TDSM) Initiative, which relies on statewide programs, but that requires a more localized approach. PG&E's TDSM Initiative

involves deferring, for a minimum of three years, substation capacity expansion projects through targeted customer-side peak load reductions. PG&E leverages its full suite of statewide resource programs (Commercial, Industrial, Agricultural, and Residential) as well as several of its Third Party and Regional Direct Install programs to target customers interconnected downstream (distribution side) of PG&E's Barton, Bouge, Lammers/Banta and Martell substations. PG&E plans to expand the effort to a number of additional substation projects in the second half of this year, with a goal of scaling up to defer targeted capacity expansion projects representing an aggregate \$50 million in capital spending each year through this initiative by the end of 2016. This pilot is a good example of how integration through multiple IOUs programs can provide the maximum benefit.

PG&E recognizes there are opportunities for improvement and that some standardization may be helpful. The IOUs' recently approved advice letter proposing its Proposition 39 ZNE Schools Pilot^{14/} includes a standardized approach for program applications. There are standard rules and procedures for applying and one common website for applicants, the Energy Design Resources website, which is the Statewide Savings by Design (SBD) website^{15/}, led by SCE. Applicants apply online, and applications are forwarded to the statewide Basecamp page for sorting and evaluation.

Some of the problems identified are policy issues slated for Phase III of this proceeding. In particular, for several of the statewide programs, cost-effectiveness remains a challenge. In addition, as referenced in AB 758, building codes are becoming more stringent and gaps exist between code and existing building stock.^{16/} Findings ways to support customers to reach codes is an ongoing challenge.^{17/}

^{14/} PG&E Advice Letter 3563-G/4587-E, et. al. was approved effective March 15, 2015.

^{15/} <http://energydesignresources.com/resources/publications/other-publications/iou-prop-39-zne-schools-pilot-draft-jan-30-2015.aspx>

^{16/} AB 758 Draft Implementation Plan p. iii.

^{17/} This issue is currently being explored by IOUs via "To-Code Pilots" and other research initiatives.

Standardization is important for the Codes and Standards (C&S) program to minimize confusion, and leverage related products statewide. PG&E is exploring expansion of its C&S program in 2016. As the 2010-2012 Energy Efficiency Report indicates, the C&S program is extremely cost effective, with "a return of approximately \$3.64 on every dollar."^{18/} Codes and Standards play a pivotal role in leading efforts to reduce the state's GHG emissions and customers' energy bills. The Commission has expressed an interest in scaling the IOUs' Codes and Standards efforts, both informally and formally. For example, D.12-05-015 called for "a redesign of the statewide codes and standards program," placing it in "a central strategic position within the IOU energy efficiency portfolio."

Q.2: What kinds of programs lend themselves to statewide leadership on design and implementation?

The programs that lend themselves to statewide leadership on design and implementation are the statewide "core" programs, which serve as the backbone of the IOUs' EE portfolios. Programs and subprograms such as Commercial, Industrial and Agriculture Deemed, Custom Retrofit, and New Construction, Home Upgrade, Plug Load and Appliances, Multifamily EE Rebates benefit from statewide teams that provide centralized leadership, which is needed to set consistent statewide policies, incentive rates and implementation procedures. More "niche" or "targeted" programs, such as those that may focus on particular segments, geographies, technologies or market problems, are best suited for local and regional flexibility and creativity in design and implementation. These targeted programs typically leverage the policies, incentive rates and implementation procedures that are coordinated at the statewide level while bringing specific focus and expertise to bear on specific, often localized, market problems.

Statewide leadership for design and implementation currently exists. Since the 2010-2012 program cycle, the IOUs have successfully convened and facilitated a host of inter and intra-IOU statewide coordination committees to foster consistency in approach, while keeping local and regional variances in mind as an important component of program design. In fact,

^{18/} 2010-2012 Energy Efficiency Evaluation Report, p. 11.

currently, the IOUs lead statewide coordination meetings for each statewide program, with a lead IOU appointed for each. In many cases, statewide subprograms also benefit from inter and intra-IOU coordination, with regularly scheduled meetings where PAs share best practices and lessons learned, discuss continuous improvement opportunities, and work on strengthening program consistency. All six of the Residential Program’s subprograms^{19/} benefit from a statewide coordination committee that meets regularly. The statewide committees are valuable and allow the IOUs to advance and evolve their thinking on program design and implementation by ensuring continuous feedback loops with their PA counterparts, Commission staff, and in many cases other market actors.

Table 1, below, outlines the current statewide programs and IOU leads.

Table 1 Statewide Programs and IOU Lead

Program	SW IOU Lead
Residential	SDG&E
Commercial	PG&E
Industrial and Agricultural	SCG
Lighting	SCE
Codes & Standards	PG&E
Emerging Technologies	SCE
IDSMS	SCE
WE&T	PG&E
Financing	SCG

Statewide program design and implementation offers many benefits, including making it more efficient, comprehensible, cost-effective and appealing for multi-site customers, third party program providers, contractors, distributors/retailers, lenders, state/federal agencies, and other market actors and stakeholders to participate. For these reasons, PAs devote significant time and resources into statewide coordination, while attending the local and regional needs of diverse customer bases.

^{19/} Residential Energy Advisor, Home Upgrade, MFEER, Res New Construction, Res HVAC, Plug Load and Appliances.

IOUs have a demonstrated track record of leadership in statewide program design and implementation. For example, for Plug Load and Appliances, a statewide residential subprogram, the IOUs have been exploring opportunities to better improve consistency and efficiencies, particularly with respect to appliance recycling. Due to the statewide team, the IOUs are aligned on incentives, and leverage other IOUs innovative approaches such as providing a sales incentive to retailers' salespeople for driving customer participation. In addition, as part of PLA, PG&E is spearheading the Retail Plug Load Portfolio (RPP) trial under the umbrella of the statewide program.^{20/}

Process improvements for statewide customers should be considered, such as the standardization of incentive forms for statewide programs. In the future, working through the various statewide teams, PAs could explore addressing ways to help customers and vendors work across territories to ease program participation and mitigate duplication of effort.

Q.3: Would it make sense to develop mid-stream and upstream programs at the statewide level to more fully leverage the state's buying power with manufacturers and/or retailers, rather than have each utility develop separate mid-stream and upstream programs?

Currently, the majority of mid-stream and upstream programs are coordinated at the statewide level, and benefit from the leadership, and reputation of the IOUs who lead these various initiatives and coordinate directly with distributors, manufacturers, and retailers. While the IOUs do not provide products and equipment for these programs, the programs may increase volume of sales, which may result in lower prices. This arrangement would likely not change with statewide standardization.

PG&E supports national partnerships for upstream and mid-stream programs. These partnerships help move the needle in terms of market penetration and transformation.

^{20/} The trial is designed to test whether a combination of incentives and engagement will motivate retailers to promote, assort, stock, and demand more energy efficient (EE) models than they would have absent the program. The goal of which is to transform markets by streamlining and harmonizing energy efficiency programs with retailers, making them less complex to retailers and customers and more cost-effective to the utility.

PG&E is a driving force behind ENERGY STAR's Retail Products Platform pilot. PG&E is developing national partnerships, including utilities across North America, utility administrators, the Environmental Protection Agency's ENERGY STAR team, NRDC, the California Technical Forum (CalTF), and a variety of retailers and manufacturers, on a coordinated approach to engage midstream partners, designed to unlock deeper savings at a lower cost for all participants by transforming the way energy efficient products and messages are delivered to residential customers.

Q.4: *Can/should we simultaneously have regional variations for similar programs (e.g., commercial lighting) and have an overlapping single statewide program for the benefit of those with a statewide footprint?*

It is appropriate to have regional variations of statewide programs. Leveraging the statewide framework, designed to offer Commercial, Industrial, Agricultural, and Residential customers the full breadth of intervention strategies needed to meet them on their customer journey, PAs require flexibility in adapting strategies to align with local and regional priorities. Establishing an overlapping single statewide program likely would result in inefficiencies and duplication of effort. Creating an additional administrator would add a layer of administrative duplication and market confusion, without reducing the need to coordinate across all players in the state.

The PAs – with the help of the statewide teams – have structures in place to facilitate the participation of statewide customers. While more could be done to provide uniformity in incentive applications, the statewide program incentive rates, offerings, program eligibility guidelines are largely consistent.

For example, in the Commercial Calculated Incentive subprogram, the IOUs follow the same policies and procedures, including calculation methodologies, customer eligibility, and measures, and use the same incentive levels statewide, as illustrated in Table 2, below. In addition, the statewide team uses the same consultant statewide to help provide program management support. The statewide consultant provides administrative support in developing

and updating program manuals, which outline program rules, guidelines, and standards.^{21/}

Customers that install energy-saving equipment are rewarded with cash payments, based on peak demand (kW) and annual energy (kWh and therm) savings achieved.

Table 2 Statewide Calculated Incentive Rates

2015 Incentives Rates			
Basic Lighting	\$0.03 / kWh	Targeted Lighting	\$0.08 / kWh
Basic Non-Lighting	\$0.08 / kWh	Targeted Non-Lighting	\$0.15 / kWh
Natural Gas	\$1.00 / therm	Peak Demand	\$150 / kW

While there may be slight variations in incentive applications, customers, contractors, and other market actors with statewide footprints are assured the same incentive levels for custom retrofit and retrocommissioning projects.

The Commission should set forth a strategy to achieving state policy objectives in lieu of adding duplicative program structures.

Q.5: Would the proposed business plan approach envisioned by the joint stakeholders' proposal lend itself to a more standardized statewide approach? If so, how? If not, why not?

The business plan approach provides statewide standardization through the implementation strategies and the reporting of sector and subsector proposed and actual achievements.

The intervention strategies, as described more fully in response to 2.2.4 Q1, are a key element for state standardization. A workpaper, for example, defines how entities can count savings, and specifies the channel. This provides the critical standardization needed for the state, without constraining the details in how implementers approach the market. The intervention strategies provide the standardized rules, while allowing the ability to fine tune locally and regionally.

^{21/} Section 1: [Offering Overview and Policies](#); Section 2: [Customized Calculated Savings Guidelines](#).

The Joint Proposal also recommends standardizing the sectors and subsectors for reporting. While it is not likely that all PAs would have activities each subsector, when activities occur, they would be categorized and reported in similar ways so activities can be easily compared for oversight and stakeholder involvement purposes. Together, these two elements of the business plan support a standardized statewide approach.

2.2.3. Should we Replace Some Statewide Approaches with Regional Approaches?

Q.1: *Are there particular “statewide” programs that we should re-label as regional or local?*

The current structure of statewide programs, that offers a framework for consistency and collaboration amongst PAs, CPUC and market actors, continues to be the right approach for California. There is no need to re-label statewide programs as regional or local.

The Commission should move away from the construct of “Statewide Programs” and “Third Party Programs” in favor of a holistic market sector approach that includes statewide initiatives along with local and regional activities. The current program funding categories should be condensed to the following categories: Residential, Commercial, Industrial, Agricultural, Public and Cross-cutting Programs. Within each market sector, PG&E will leverage third party vendors to implement and/or provide program management support for a variety of programs, as is current practice. This concept is consistent with the Joint Parties proposal for developing sector based Business Plans within the Rolling Portfolio.

Third party programs are an important delivery channel. PG&E currently devotes more than 20% of its portfolio funding to third parties and will continue to exceed that minimum threshold. Beyond third party implementers, PG&E supports a vibrant ecosystem of market actors including local contractors, local governments, trade professionals, retailers, distributors, manufacturers, ESCOs, and other market actors who allow it to intervene in the market at the most effective points to obtain energy savings.

Mapping third party programs to the customer segments they serve would enable PAs to adapt to customer demands and market dynamics more expeditiously and efficiently, and identify and fill gaps in delivery of products and services to these customers.

The Commission established third party programs to safeguard against bias in program selection and help foster the growth of the energy efficiency marketplace. Currently, the majority of third programs are designed to target a specific customer segment. Thanks to the third party program implementers' established customer relationships, these programs are often leveraged to reach niche markets, meet additional uptake and increase market penetration, as needed. Consolidating third party programs into market sectors allows PAs to achieve greater market penetration, reduce costs, and minimize lost opportunities by increasing flexibility to better leverage successful delivery channels. This proposal is consistent with Commission direct to "simplify the existing maze of programs into fewer, clearer and more coordinated programs so that customers...can more easily access and understand the availability of ratepayer-funded programs."^{22/} In addition, this proposal is consistent with Commission direction to consolidate or simplify programs to reduce administrative costs.^{23/}

By rationalizing the program offerings and delivery channels, PAs will continue to offer consistent statewide frameworks based on market sectors that customers, contractors, manufacturers, distributors, retailers, and other market actors can understand, while allowing for fine tuning of program approaches to meet local and regional needs.

Q.2: *If so, which programs and why?*

See response to 2.2.3 Q1, above.

2.2.4. Should we modify the mechanics of Statewide Program Administration?

Q.1: *Do the portfolios have too many programs? If so, how could we modify the statewide PA mechanics help to reduce them?*

^{22/} D.09-09-047, p. 105.

^{23/} D.12-05-015, pp. 11-12.

In order to capture all cost effective EE and meet the Governors’ aggressive energy goals, it will continue to be necessary to engage and influence market actors throughout the economy. There are neither too many core statewide programs nor too many contracts with implementers. However, the Joint Proposal recommends some structural adjustments to improve both the understanding and effectiveness of our portfolios.

First, an important element of the Joint Proposal is the separation of “programs” into intervention strategies, market sectors and technologies. The statewide “programs” are largely aligned with fundamental intervention strategies (financing, deemed rebates, custom rebates, etc.) that are used to influence market actors; an intervention strategy “program” is needed to define the workflow, processes and calculation methodologies needed to calculate savings relative to a baseline.^{24/} This foundation is a prerequisite for evaluating offers submitted through solicitations.

Second, the Joint Proposal shifts the focus to sectors and subsectors from individual contracts. The proliferation of “programs” resulted from the designation of each application of an intervention strategy and each contract with a third party implementer or government partner as a separate program. Over time, we would expect the overall number of contracts with implementers to expand and contract depending on the current needs and priorities. However, the proposed subsector level Implementation Plans would focus on the implementation elements

^{24/} An intervention strategy “program” defines the workflow, processes and calculation methodologies needed to calculate savings relative to a baseline. PG&E provides three examples of core intervention strategies to show how they set the stage for bidding. 1) The deemed savings program manages a process for developing deemed workpapers, which are developed to count savings in a measurable and consistent way. Once a workpaper is developed, it can be used by implementers statewide according to their contracts. In the response to 2.3.2 Q1, below, PG&E describes a process to greater leverage implementer expertise in developing new workpapers. 2) The custom savings program, with Commission Staff, has developed processes and procedures to review savings claims from custom programs. The implementation of actual projects is outsourced through competitive bidding in different regions, sectors, subsectors, etc. and through leveraging of other market actors. Any implementer would use the same processes and methodologies to calculate savings. 3) PG&E is demonstrating how meter data could be used to calculate savings through its Commercial Whole Building effort. Once the rules are set, then this same intervention strategy could be used by any bidder to an RFO.

that are unique to that subsector, including a discussion of the intervention strategies, channels, and unique marketing approaches, rather than specify and document each contract and activity.

In moving to a focus on sectors and subsectors, the Joint Proposal envisions a more customer-centric model. Success in prior solicitations led to a matrix of subsector focused contracts as well as technology focused contracts that overlapped at customer sites. This has led to challenges and confusion in the marketplace. PG&E learned from this experience and, as described more fully in response to 2.3.2 Q6, below, its rebidding effort would reduce some of that redundancy and improve program effectiveness and the customer experience.

The Commission should eliminate the “Third Party” distinction. Instead the Commission should direct the IOUs to use competitive solicitations to select third party implementers for resource programs in the Commercial, Industrial, Agricultural, Residential and Public market sectors. The IOUs would continue to leverage self-service market actors such as energy service companies, trade professionals, and sophisticated customers to optimize their portfolios. Much of the third party implementation would be focused on customer sectors and subsectors, and these market actors would continue to leverage the core intervention strategy calculation methodologies, workflows, and processes. Locally-focused third-party contracts would continue to identify and target hard-to-reach potential, address niche markets, and test new and innovative measures and strategies.

In this construct, the Commission oversight would focus on: 1) setting strategic direction in the Business Plans including the selection of intervention strategies to be used in different sectors and subsectors, 2) setting the rules, processes and workflows for the intervention strategies, and 3) review of specific savings calculations through DEER, non-DEER workpapers and a selection custom project.

Q.2: *Should we move to a third-party administrator for some statewide program(s); if so which one(s)?*

It would not be helpful to move to a third-party administrator for some statewide programs at this time. PG&E welcomes a thorough public discussion of the issue. However, the Commission should tread cautiously and base any decisions on substantiated data and analyses.

The current structure of statewide programs offers a framework for consistency and collaboration amongst PAs, CPUC and market actors, and the flexibility PAs need to meet state policy goals and diverse customer needs is the right approach for California. In fact, over the course of 5 years, PAs have been working on striking that fine balance between statewide consistency and flexibility to meet customer needs. Introducing a completely new delivery model at this time, without sufficient data to support the benefits of such an approach, would disrupt the marketplace and constrain PAs ability to meet energy savings goals.

As California considers better ways to maximize DSM programs, through the current IDSR rulemaking, and contemplates its vision for the future of electric utilities through the Distributed Energy Resources rulemaking, integration becomes critical. Disaggregating programs at this stage would disrupt this complex ecosystem and limit the ability for California to truly consider EE as a resource, and to deploy it like a resource, to increase reliability, affordability, and carbon reduction.

The current structure of EE programs allows PAs to better customize program efforts to meet the unique needs of their customer base. The strength of the IOU as its customers' trusted energy advisor enables PG&E to mobilize a vibrant ecosystem of market actors to maximize the savings with each customer. The EE industry in California has grown over 40 years from utility employees walking in to do a simple audit" to a vibrant program that includes a vast array of market actors, allowing PG&E to intervene in the market at the right points , with the right EE services, technologies, products, and incentives to meet unique customer needs.

Leveraging relationships with market actors, IOUs intervene in the market to more rapidly move a technology through the product lifecycle from Emerging Technology to Incentive

Programs to C&S, and both enable and drive market transformation. For example, California can claim success in helping transform the television market, driving significant efficiency in the upstream market. IOUs approached retailers and manufacturers with incentives to encourage stocking more energy efficient products. To qualify for incentives, TVs were required to surpass the ENERGY STAR efficiency level by at least 15%. By 2011, all major retailers and 352 stores in PG&E's service area offered high efficiency TV models. Today, TVs are on average 50% more efficient than their 2008 counterparts.

California is too large and diverse of a state for a third-party statewide administrator to do the entire job effectively. The current program structure allows for broad enablement of EE marketplace, and ensures all customers are served and competitive markets thrive.

A third-party program administrator is not the remedy to the California portfolios' perceived maladies. High priority should be given to tackling policy issues slated for Phase III as highlighted at Workshop 3 by many parties, including NRDC. Mr. Goldman provided simple suggestions that would enable the doubling of savings needed to meet the Governor's new EE goals. Resolving the baseline issues is needed to incentivize administrators and implementers to target and influence customers with operational and below code EE savings potential, align PA programs with the way companies transact EE business in the market and forecast energy savings for customers. The state should also consider which cost effectiveness metric (TRC, PAC, etc.) best aligns with state policy goals. For example, current policy directs market actors to target additional HVAC savings potential, however, as currently calculated, the TRC values indicate there is little societal benefit to doing so. In addition, the PG&E's rolling portfolio comments proposed moving away from an ex-post evaluation of PA programs to restate program success. Instead, net-to-gross ratios should be used for prospective program design. In Hawaii, evaluations are ex-post and prospective only. Net-to-gross ratios are used to modify the following year's program or deemed savings. These policy rules, and others that will be considered in Phase III, are key to achieving the "next level of EE."

2.3. Third-Party Energy Efficiency Programs

2.3.1. How Do IOUs Configure and Solicit 3P Programs to meet policy objectives?

Q.1: *What distinguishes a “Third Party Program” from other forms of non-IOU implementation? Is this distinction worth maintaining?*

As described more fully below, core programs are those directed to be implemented consistently statewide, while third party programs are designed to complement the core programs. Even the core programs are largely implemented through non-IOU entities. Given that the IOUs contract with implementers and other vendors for both 3P and statewide programs, there is no need to maintain the distinct Third Party Program funding category. The Commission should instead direct the IOUs to use competitive solicitations to select implementation support for resource programs in Commercial, Agricultural, Industrial, Residential, and Public market sectors. It is important to maintain locally-focused third party program implementers to address niche markets, test new and innovative measures and program strategies and design, provide turn-key/concierge service which help to meet customer needs, and identify and target hard-to-reach or stranded potential.

The Commission originally instructed the IOUs to hold competitive solicitations for the Third Party program in 2005 to gain innovation and capture the most cost-effective savings to meet Commission goals.^{25/} Third Party solicitations are used to solicit innovative ideas and proposals for improved portfolio performance. The Commission directed that third party “bid solicitations [to] target specific program areas that could be enhanced through improved design and implementation, or to solicit proposals for new program designs and technologies.”^{26/}

Third Party implementers provide turn-key/concierge services for PG&E’s customers, which facilitate participation in EE programs and increase customer satisfaction. Third Party programs are more locally-focused than the IOUs' statewide programs and serve niche and hard-to-reach markets. Third parties are responsible for the program implementation, including

^{25/} D.05-05-055, p. 94.

^{26/} D.05-09-043 p. 5.

project design, technical assistance, outreach and marketing, implementation, job processing, quality assurance and control, and in some cases, incentive payments. PG&E also guides program implementation strategy. Bid solicitations are focused on improving performance of the portfolio by producing the most cost effective energy savings.

PG&E's core statewide programs are designed to set up the fundamental intervention strategies which are broad leveraged as well as tackle initiative directed to be consistent statewide. Third party vendors may also provide implementation support throughout PG&E's core statewide programs. For example, Honeywell provides implementation assistance for PG&E's Commercial Quality Maintenance program and Build it Green supports implementation of PG&E's Home Upgrade program. PG&E will continue to identify other program needs that could be filled by third-party vendors.

Q.2: How do IOUs decide what programs to pursue via "Third Party Program" solicitations versus via their statewide programs?

All core statewide programs cover areas the CPUC has directed be implemented consistently statewide. Some of the core statewide programs support the fundamental implementation strategies that are then leveraged by all types of market actors. Other core statewide programs or initiatives target specific savings potential (e.g. HVAC). PG&E's 2016 Third Party solicitation was structured to fill identified gaps and reduce overlaps in its Third Party Programs and core statewide programs based on a comprehensive review of its entire portfolio. It had designed its solicitation ensure that all of the program offerings meet the diverse needs of PG&E's customers. PG&E's third party implementers are an essential complement to the core statewide programs.

Q.3: What is the process for and likelihood of "Third Party Programs" that are not successful or that have run their course being terminated, or on the other hand, of scaling up and "graduating" to becoming statewide programs?

PG&E has terminated Third Party subprograms based on implementer requests and based on overall optimization of the portfolio, savings goals, market potential, available measures, and

administrative costs relative to savings. In 2014, PG&E closed several subprograms with Energy Division approval.^{27/}

Third Party programs are designed to either implement innovative 3P developed new ideas or meet local needs and produce the most cost effective energy savings that meet or exceed savings goals. Successful implementation in one service territory can lead to adoption in other territories. These programs are not designed to “graduate” to become statewide. While PG&E’s Third Party subprograms are moving toward a more comprehensive program approach versus a technology approach, this shift is not intended to change the overall approach to such programs. PG&E still intends to have third party program implementers design innovative programs to meet local needs within a comprehensive program framework.

Q.4: To what extent are Third-Party Program bidders able to propose their own program designs?

In prior PG&E solicitations^{28/}, external entities were able to propose programs under an open ended framework. This led to a matrix of contracts with different providers targeting customer segments, promoting specific EE technologies or serving particular geographies. This structure has been problematic for customers, who might need to interact with multiple programs to complete a full EE project. Based on experience and feedback from implementers, PG&E supports a more streamlined, customer centric structure for future solicitations.

PG&E planned to rebid many existing Third Party subprograms for 2016 and beyond. PG&E planned to both restructure the portfolio to be more customer centric^{29/} by soliciting new innovative program designs within specified market subsectors while also offering an

^{27/} See PG&E Advice 3539-G/4545-E and Advice 3465-G/4385-E.

^{28/} PG&E held solicitations for new Third Party programs for the 2006-2008 and 2010-2012 portfolios. Approximately 30 contracts from the 2006 solicitation were renewed after that initial solicitation. The new subprograms resulting from these solicitations were designed by Third Party implementers. In addition, PG&E held a solicitation for IDEEA 365 in 2013, which requested innovative program designs within both a targeted and open-ended framework.

^{29/} Some examples of new subprograms PG&E intended to solicit for 2016 include Light Industrial, Comprehensive Irrigation, Biotechnology, and Large Data Centers Programs.

opportunity for open ended proposals. In either case, participants would have been able to propose their own program implementation methods, measure mix, and geographic areas.

PG&E will issue an “innovation” or IDEEA 365 solicitation for third party implementers to design additional programs both within a targeted and open-ended framework. Thereafter, PG&E plans to allow for “rolling” entrants of third-party designed programs.

IDEEA 365 was designed specifically to provide broad latitude for third party vendors to propose innovative new programs. In addition, Third Party program implementers always have opportunity to redesign program to meet changing market needs and dynamic EE environment, e.g., when savings values change mid-cycle. For example, PG&E’s Third Party Energy Efficiency Services for Oil Production Program implemented by EnerNOC evolved and sought different savings opportunities, when certain key measures in this program became industry standard practice and were closed.

Q.5: *How much latitude is there for Third-Party Program bidders to propose:*

a. *target market sector or segment?*

To maximize customer experience and minimize overlap, PG&E’s future solicitations would be a mix of bringing innovative program design proposals within a market subsector and more open ended “innovation” concepts.

b. *geographic scope of coverage? (within a utility service area, or to serve multiple service areas); and,*

Much of the opportunities in future solicitations would be available throughout the service area. However, many of PG&E’s Third Party Programs lend themselves to certain geographies where the customer segments are localized (e.g. dairies, wineries). Service-area wide subprograms are coordinated with the remainder of the portfolio.

PG&E’s regional Direct Install model focuses on specific geographies because the programs leverage local government partners’ existing relationships and community knowledge to serve small and medium business (SMB) customers and the public sector. The service areas can range from one county to a broader region of multiple counties. While Third Party

implementers are not designing these programs or identifying a geographic scope of coverage, they can bid to provide services in multiple locations.

c. set of end uses or measures to be included or permitted?

Third Party subprograms are able to adapt to changing market conditions (see the description above of the Oil Program as an example). In addition, Third Party implementers will be able to propose new measures through the “new idea process” described more fully in response to 2.3.2 Q1 directly below.

2.3.2. Changes to Third Party Approaches

Q.1: *Does the current program implementation framework constrain or create barriers to innovative third party program design; if so, how?*

While there are a number of barriers to innovation, none have been identified that are caused by the current program implementation framework. Below, PG&E identifies other barriers to innovation. Some barriers to innovative third party program design were identified in the workshop, including insufficient focus on LED lighting and HVAC, an inability to utilize a “pay for performance” approach to energy efficiency savings due to the existing energy counting rules, an inability for third parties to bid innovative measures. These generally require policy direction to resolve. A rolling portfolio construct will remove some additional barriers to innovation. Where appropriate, PG&E suggests solutions to these barriers.

1. Insufficient Focus on LED lighting and HVAC End Uses

As mentioned above, there is competing policy direction in that PAs are encouraged to pursue LED and HVAC measures while the policy decisions on how cost effectiveness is calculated for these measures indicate that by the TRC cost effectiveness standard, it is not societally beneficial to intervene in these areas. This issue should be addressed in Phase III.

2. Using a Pay-for-Performance Structure to Alleviate Workpaper Constraints

The March 24th Greentech Leadership Group presentation promoted the use of meter data to calculate savings to align the services provided in the EE marketplace with the state policy

goals and reduce the risk of spending public dollars. There is a fundamental barrier to innovation in that before an implementer can claim savings for something new, a workpaper (or individual custom calculations) must be developed and extensive data must often be collected. Currently, there is a high burden of proof for incorporating new measures to the portfolio. Data collection can be challenging and the preponderance of evidence required for a new measure to be incorporated is sometimes insurmountable. The use of meter data is appropriate to address this barrier; however, current baseline policy does not allow savings to be calculated based on meter data. This should be addressed in Phase 3.

As mentioned in 2.2.1 Q1, above, the process of developing, vetting, submitting, and reviewing new workpapers requires both engineering resources and adequate data. Custom project applications are only available or practical for large projects. There will always be more ideas proposed than are achievable with constrained resources and the current target of limiting direct implementation non-incentive costs to 20% of costs in the current baseline framework.

Meter data can potentially be used to calculate savings while reducing the need for engineering judgment and can reduce the state's reliance on the workpaper process. Greater use of meter data has the potential to reduce the resource constraints inherent in a custom or deemed intervention strategy and unleash greater levels of innovation. PG&E's Commercial Whole Building demonstration is in process to develop and test the rules and processes needed to launch a new intervention strategy. Additionally, new measure development processes could be improved.

The California Technical Forum (CalTF), an independent body of industry experts formed in 2013, has potential to assist in overcoming these challenges. The CalTF supports both the IOUs and California's publicly owned utilities. It is currently supporting an effort with PAs and Commission Staff to outline the type and quality of data needed to introduce measures, depending on the potential levels of penetration in the portfolio. Clear direction on this could potentially streamline the process of launching new measure ex-ante savings values.

3. Inability For Third Parties to Bid Innovative Measures

In the workshop, some commenters requested the ability to bid innovative measures.

As mentioned in the response to 2.2.4 Q1 above, workpapers had previously been developed by multiple parties including third party implementers and government partnerships. To bring more standardization and quality control to the process, workpaper development was centralized to the IOUs; PG&E and SCE now manage the vast majority of workpaper development. PG&E is rolling out a process in which implementers are encouraged to submit new ideas and specify a business case and identify the data set(s) needed to develop a new measure to return to a scenario where implementer ideas and innovation are fully embraced while still maintaining quality control and standardization. This may be particularly helpful in niche areas where implementers have specialized knowledge. Once these are evaluated against the portfolio of opportunities, PG&E may pursue development of a workpaper meeting the current requirements (templates, data requirements, etc.). New measures would, however, need to follow the appropriate CPUC review and approval procedure before they could be used.

4. Barriers the Rolling Portfolio construct could eliminate

It was challenging to scale new ideas under the former triennial portfolio structure. The rolling portfolio construct will better support innovation in a transparent manner by allowing annual prospective planning for each coming year in which new budgets could be set for different programmatic activities.

The current *ad hoc* updates to ex-ante values can be a barrier to proactive program changes. If an implementer proactively makes forward looking changes and communicates them to the customers, they may need to re-launch and re-communicate changes within a short time. This can lead to a structure in which implementers are reacting to changes in savings values, as opposed to thoughtful proactive planning based on a known savings value structure. The Joint Proposal would resolve this problem through annual updating of savings values.

The current policy for review of new measures can be a barrier to implementation of new measures. Currently, Staff has 25 days to review and provide a disposition on a newly submitted

measure. If the disposition is not provided within that 25-day period, the implementer may move forward with measure; however, Staff can review and provide a disposition at any time. That disposition is then effective immediately on a going forward basis. Without a clear approval, an implementer runs the risk of launching a new effort only to shortly thereafter receive a disposition that changes the fundamental savings parameters. The new measure would be set until the next bus stop process picks up changes, as long as there was a public vetting of the workpaper through a process like the CalTF and the Staff was provided notice of the process and intent to submit a workpaper.^{30/}

5. Existing Features that Support Innovation

There are mechanisms to support the funnel of new ideas which should be continued. The Electric Program Investment Charge (EPIC) supports new research. The ET and Lighting Innovation programs support the demonstration and testing of new, market ready technologies. IDEEA 365 solicitations can support both pilots and larger scale roll out of new innovations. These are all important elements to supporting EE innovation. This funnel of new ideas also fits into the lifecycle planning for new measures as discussed in our response to 2.2.1 Q2, above.

Q.2: Should co-pays be required for direct install programs; if so, why?

Not necessarily. A co-pay is an amount that a customer pays to the implementer that offsets the cost of an EE measure. Co-pays have benefits, but should not be required for every measure. For example, from a sales standpoint, highly cost-effective measures may be offered at no-cost as a lead-in to promoting a more comprehensive project. In addition, bundling very cost-effective measures at no-cost with less cost effective measures -- especially the ones which contribute highly towards energy savings goals that have a small amount of co-pay -- can make comprehensive projects more attractive to customers with specific return on investment requirements. Therefore, the inclusion of co-pays allows programs to broaden measure offerings while maintaining cost effectiveness and allows customers to have “skin in the game.”

^{30/} PG&E Workshop I Comments, question 3. D., p. 8 (Apr. 6, 2015).

Q.3: *What solicitation process improvements for Third Party Programs could better achieve or exceed Commission objectives for:*

a. *innovation and*

PG&E's recommended process improvements that could improve innovation related achievements are listed in its response to 2.3.2 Q1, above. PG&E's third-party solicitation would request new, innovative proposals.

b. *improved portfolio performance?*

In response to 2.2.4 Q1, PG&E identified the key aspects of the joint stakeholders' business plan approach (e.g. sector and sub-sector based activities, a rolling cadence to activities, stakeholder involvement, etc.) that would improve portfolio performance.

Q.4: *What framework or process offers promise for obtaining higher levels of efficiency outcomes and/or with lower costs, so as to obtain improved portfolio metrics?*

PG&E supports the Rolling Portfolio programmatic framework with the ability to conduct solicitations as needed on an on-going basis. The IOUs may need to fill gaps, leverage innovation, meet savings goals, impact TRC, add implementers to meet overall portfolio objectives. IOUs are responsible for meeting the overall portfolio objectives (savings goals, cost-effectiveness, innovation, etc.). To meet this responsibility, the IOUs must have the necessary tools, including the ability to conduct solicitations.

PG&E anticipates that the policy issues slated for Phase III, in particular baseline issues and the ability to more fully leverage AMI data as well as selection of cost-effectiveness measures, have the potential to significantly impact efficiency outcomes.

Q.5: *What process(es) could be adopted to ensure program designs and implementation procedures or practices take full advantage of identifying opportunities for improvements and higher performance outcome?*

The Joint Proposal recommends restructuring of the portfolio to align outreach to sub-sectors. This, together with periodically rebidding implementation of certain subsectors, will leverage competitive forces to best practices. The desire to regularly refresh contracts should be balanced with the need to allow an entity to ramp its activities in a sector, as appropriate. PG&E

planned to structure new contracts so that the contract terms would meet the needs of the market sector. For example, the Third Party Industrial program contracts would be of a longer duration to provide sufficient lead time for the vendor to build pipeline and generate savings.

Additionally, the Joint Proposal includes a Stakeholder Participation element to solicit ideas from stakeholders and industry participants. The transparency required by this process will ensure that non-bid elements of the portfolio have access to and take advantage of the best opportunities for improvement.

In order to take advantage of new program designs and implementation procedures, it may be necessary to develop new savings calculation information. As discussed more fully in 2.3.2 Q1, this is a barrier that can potentially be resolved through greater leveraging of AMI data.

Q.6: With respect to PG&E's plan to rebid most/all of its Third Party Programs, are PG&E's proposed changes to its solicitation processes reasonable?

PG&E's plans were reasonable and fully compliant with current decisions and rules. PG&E did not propose changes to the solicitation process. PG&E's solicitation would provide an opportunity for price competition and innovation within targeted market subsectors as well as develop new subprograms to fill market gaps identified by market analysis and stakeholder input. The solicitation was intended to spur competition, evolve programs to have more comprehensive offerings, improve customer satisfaction, allow programs access to full set of measures to adapt to changing market needs, and address some of challenges that arose from prescriptive/artificial barriers from past program design.

PG&E's next IDEEA 365 solicitation will allow implementers to design additional programs both within a targeted and open-ended framework.

Offering a solicitation for long-standing subprograms would also provide price competition within targeted market subsectors. The structure and reasons for the solicitation are described in response to 2.3.1 Q4.

Q.7: *How might statewide or regional/local programs integrate their resources and activities to support some of the strategies identified in the current CEC Existing Buildings EE Action Plan (AB 758), as discussed by Martha Brook of the CEC at the March 23 workshop? (see: <http://www.energy.ca.gov/ab758/document/s/index.html>) E.g. coordination with building benchmarking activities, or using customer data to assist in targeting best prospects for EE adoption.*

PG&E's current portfolio of statewide and local program offerings is well positioned to support the strategies in the Draft AB 758 Action Plan and to meet AB 758's near-term timeline activities. CEC's presentation looked to IOUs in the following areas: 1) provide benchmarking and pre-audit smart meter data analytics services; 2) recruit program participation through benchmarking; use upcoming benchmarking disclosure to motivate participation; and 3) support and increase awareness of Investor Confidence Project (ICP) Protocols. PG&E discusses each of these then discusses broader activities to use data to target best prospects for EE adoption as well as other activities to support additional Action Plan strategies and goals.

Provide Benchmarking Services

Benchmarking is an important tool for energy awareness and education. PG&E will continue to work on best practices for providing benchmarking data to building owners while also adhering to California privacy laws and regulatory rulings. For the last seven years, PG&E has demonstrated its strong supporter of benchmarking through its partnership with ENERGY STAR Portfolio Manager to support our customers with building performance benchmarking. Also, PG&E is working with twenty U.S. utilities to support DOE's Data Accelerator project. Following last year's DOE kick-off, PG&E began to work with San Francisco and other California stakeholders to find practical ways to give building owners access to whole building energy data while at the same time preserving the confidentiality of customer-specific billing and energy usage data. Lastly, PG&E has taken several steps towards compliance with AB 1103^{31/} and will further support the existing buildings Action Plan in this area. Pre-audit smart meter

^{31/} A few of PG&E's AB1103 related actions include enabling automated data transfer, facilitating customer data release through an option to do so through online forms, salesforce training, developing in person and online training classes, as well as creating a dedicated team of benchmarking specialists to provide one-on-one telephone support.

data analytics is used for participant recruitment and this is described more under “Using Data to Target Best Prospects for EE Adoption” below.

Recruiting program Participants through Benchmarking

Program implementers use various techniques to engage customers and motivate action. PG&E agrees that the prospect of future disclosure of building performance benchmarks is likely to motivate some owners and can be considered for future outreach efforts.

While customers with high usage identified through benchmarking would be good targets for EE improvements, the current policy may prohibit their participation. Under current CPUC policy, those customers are generally assumed to improve their buildings to code on their own; PAs are only able to claim energy savings associated with getting those buildings to code with a preponderance of evidence that the implementer motivated the activity. The associated rules are not straightforward, and the burden of proof can be difficult to demonstrate. To operate efficiently, implementers may choose to target other buildings instead of older or less efficient buildings may not be pursued. A preliminary study of 164 commercial buildings indicates that nearly 50% of potential retrofit savings lie in bringing buildings to code but are “stranded” under current policy, while only 24% of potential retrofit savings are “above code” and therefore targetable under current policy.^{32/} Capturing these savings in the state’s existing buildings is essential to achieve AB 758 goals.

Support and Increase Awareness of ICP Protocols

PG&E supports the use of standardized savings calculation methodologies for financing programs. PG&E understands that the ICP does not use the code or ISP baselines required by CPUC policy. To the extent that new or additional calculations are required, this may increase direct implementation non-incentive costs.

^{32/} Stranded Potential Briefing, PG&E EE Strategy, March 2015.

Using Data to Target Best Prospects for EE Adoption

PG&E agrees that best practice often includes the use of customer data to assist in targeting the customers with the best prospects for EE adoption. The data analysis mentioned earlier in this question is a demonstration of the use of remote auditing and end-use disaggregation tools, which are quickly improving. This type of an approach has the promise to refine program targeting and potential assessments at the individual customer level.

PG&E developed tools to understand our customer data and make it accessible and usable for program management. PG&E's TDSM Initiative is an example of the ability to use such data to deploy integrated EE, DR and DG solutions to address constrained areas. The initiative is based on extensive data analysis to identify the highest peak demand energy users in each of the substation catchment areas. Using this information, our Energy Service & Sales representatives and Third Party implementers were able to work with non-residential customers to identify which program offerings were best suited for their needs. Meanwhile, program managers were able to target the residential customers with the best prospects for successful participation in our SmartAC™ Program. PG&E used data and software to perform a sophisticated analysis and pinpoint opportunities, then deployed integrated solutions that resulted in energy use reductions in these areas. This has implications for several AB 758 Action Plan Strategies, including Strategy 1.8 (Efficiency as a Clean Energy Resource) and Strategy 2.2 (Data for Improved Decisions).

Additional Activities to Support AB 758 Action Plan

PG&E is undertaking additional activities which will help support additional AB 758 strategies. These include expanded use of AMI data (e.g. commercial whole building demonstration) and the CalTRACK and CalTEST initiatives. . These and other activities support many of the AB 758 Action Plan Strategies and Goals, including Strategy 1.2 (Benchmarking and Disclosure), Strategy 1.3 (Building Performance Assessment Tools), Strategy 1.8 (Efficiency as a Clean Energy Resource), Strategy 2.2 (Data for Improved Decisions), Strategy 3.2

(Performance Driven Industry), and Goal 4 (Californians recognize and benefit from the value of efficiency upgrades).

Strategy 3.2 of the Action Plan identifies a desire to move to a “performance driven industry.” This would include increased use of AMI data to demonstrate the savings of different activities. PG&E supports using AMI data to estimate savings. AMI data is currently used for calculating savings from home energy reports as well as in PG&E’s Commercial Whole Building demonstration project (discussed below) and SMB energy reports pilot. AMI data could also be used for multi-measure deep retrofits that would be noticed at the whole building level. Using AMI data rather than engineering estimates to calculate savings could reduce uncertainty and the need for engineering judgment, and better align savings reported to the CPUC with the reductions in energy use experienced by customers and the grid. In late 2013, PG&E developed and launched the CWB Demonstration^{33/} as a proof of concept for a pay-for-performance program targeting deep energy savings in existing commercial buildings. As discussed more in response to 2.3.2 Q1, launching this savings calculation methodology and intervention strategy could reduce current constraints to innovation.

The objective of Goal 2 (data drives informed decisions) of the AB 758 Action Plan is for “building owners and residents to demand energy-efficiency services informed by the full range of information relevant to them.” The CalTRACK/CalTEST initiative was undertaken to both increase confidence in a greater number of energy modeling software tools and enable the use of software tools that were both easier to use and provided better information for homeowner decision making. CalTEST, completed in fall of 2014, screened energy modeling software using data from actual California homes and increased the number of energy modeling software tools qualified for use in the Advanced Home Upgrade program. CalTRACK, as envisioned, will be

^{33/} CWB relies on data science and actual energy, weather and other data to validate customer savings, made possible by California’s broad deployment of smart meter technology. Recruitment for the Demonstration was targeted toward high potential buildings and projects designed to achieve 15% or more energy savings. As of January 2015, PG&E had 14 enrolled projects, drawn from office, grocery and institutional properties generally ranging between 20,000 and 100,000 square feet. Project implementation will continue through 2015, with final results largely determined by 2016.

used to analyze project performance data to provide ongoing feedback on gross savings, realization rates, and other performance metrics. Successful completion of CalTEST and CalTRACK will enable PAs and private market financiers to invest in energy efficiency as a reliable, cost-effective resource with consistent returns, promoting achievement of Goal 2 as well as Goal 5 of the AB 758 Action Plan.

PG&E anticipates that the policy issues slated for Phase III, in particular baseline issues the ability to more fully leverage AMI data, and the selection of cost-effectiveness measures, have the potential to significantly impact PG&E's ability to target and influence owners of the state's least efficient buildings.

Q.8: Are there national utility or EE industry sources of program design best practices, and implementation benchmarks or best practices that should receive greater attention by PAs and implementers in California?

There are many examples of program design and implementation best practices that could provide valuable lessons here. Many of these examples make use of policy frameworks that differ from California's regulatory structure.

Several states that score highly in the American Council on an Efficient Economy (ACEEE) scorecards use existing conditions as baseline.^{34/} In Oregon, which was ranked third by ACEEE in 2014, existing baseline is used for almost all retrofit conditions, and the use of deemed savings typically assumes existing baselines. However, in Oregon, projects using tax credits have to use incremental above-code savings. In Massachusetts, 2014's top-ranked state, implementers use a mix of federal minimum codes and existing conditions. Vermont, also ranked third, uses existing conditions for custom projects. New York State, ranked seventh in 2014, is using existing conditions for its T&D projects – a recent Brooklyn project involved many SMB direct install projects that were no cost to the businesses.

^{34/} American Council for an Energy Efficiency Economy, 2014 Scorecards. <http://aceee.org/state-policy/scorecard>

Other states have more simplified and faster EM&V processes. Massachusetts and Illinois, which are both scored highly by ACEEE, are successfully able to produce program evaluation results in a seven to nine month timeframe.

Net-to-gross estimation is handled differently in other states. As Jim Flanagan referenced during Workshop 3, free ridership is seen as “just the cost of doing business” in Hawaii. Washington state regulators made a decision to expend energy and resources on difficult to quantify attribution metrics; net-to-gross is not calculated. Instead, evaluators are focused on the savings impact to the grid.

PG&E used the original AB 758 Action Plan and the Strategic Plan to design programs and support state policy goals. PG&E supports on-going benchmarking efforts and participates and leads industry organizations such as CEE and ACEEE, which identify and implement program best practices. PG&E is also pursuing program benchmarking to determine the most effective programs and implementers.

California should rely on best practices from other regions (e.g., the Connecticut Efficiency Board, the Illinois Stakeholder Advisory Group, the Massachusetts Advisory Council, the Regional Technical Forum in the Pacific Northwest, etc.). The Northeast Energy Efficiency Partnership’s Regional Energy Efficiency Database endeavors to make reported results for the Northeast and Mid-Atlantic states consistent and comparable. California should also continue to use its own successful stakeholder processes such as the AMI Technical Advisory Panel, the Procurement Review Group, and the Western HVAC Performance Alliance.^{35/}

2.3.3. Possible Third Party Approach to Statewide Programs

Q.1: *Should a single PA administer some statewide program(s) for the entire state; if so which one(s)?*

The IOUs should continue to administrate and maximize the benefit of the statewide programs, while meeting local needs and niche markets with local programs.

^{35/} Joint Parties’ Workshop I comments (filed by NRDC), p. 10.

The Regulatory Assistance Project paper on program administration models emphasizes that there is no clear best model for administration, but that there are a number of "relevant factors to consider when comparing utility administration to third-party administration."^{36/} These are: "responsiveness to PUC direction, ability to focus on customers and markets, regulatory performance incentives that are properly constructed and implemented, staff competency, ability to support the market (intended to cover timely payment of incentives and flexibility for changing market conditions), sustainability of the institution and its budget sources, and link to system planning and investment decisions."^{37/} The IOUs are best positioned to coordinate between demand side and supply side system planning and investment decisions.

Mr. Goldman noted at Workshop 3 that a change in program administration usually takes two to three years at a minimum. Where it has occurred, changing program administration models has been disruptive to service and product providers (trade allies), implementers and consumers. It can also result in potential loss of EE services infrastructure and capacity. Given the lack of clear evidence that an alternative model would be more successful, the State should retain the existing structure and adopt the Joint Proposal improvements.

Q.2: Are there other states, multi-state regions, or countries that California should look to for models for better designs, operational features, or opportunities for economies of scale for utility costs, supplier channel participation, or customer engagement? If so:

There are many models of EE Program Administration; each has its advantages and disadvantages and none is perfect. States differ in priorities, circumstances, objectives and institutional resources. Utilities have historically served as program administrators and they vary across the country in terms of efficiency program performance, commitment and incentives. Ultimately, any administrative model can successfully deliver cost-effective energy efficiency programs, provided the appropriate policies, oversight mechanisms, personnel and administrative

^{36/} *Who Should Deliver Ratepayer-Funded Energy Efficiency? A 2011 Update.* Richard Sedano. RAP. 2011.

^{37/} *Id.*

structures are in place. As Mr. Goldman noted, the majority of U.S. programs are administered by utilities.

a. *What are they;*

The California entities looked to other state and region best practices regarding forums for technical operations prior to setting up the CalTF. These include the Regional Technical Forum in the Pacific Northwest^{38/}, and the Northeast Energy Efficiency Partnership's Regional Energy Efficiency Database (NEEP REED)^{39/}, and the Illinois Stakeholder Advisory Group.^{40/}

The Massachusetts Mass Save® model is considered a leader in coordination of multiple utilities in delivering statewide programs. Massachusetts has a multitude of utilities with significant differences between PA service territories in terms of urbanization, socioeconomic conditions, size of commercial sector, and building demographics as well as size and level of resources. Each PA is regulated individually and has unique goals. Under the Mass Save model, each utility administers programs that are defined as statewide offerings. They also each pilot local offerings, which may be adopted statewide when successful. This has strong parallels to the existing California model.

Mass Save is not an entity in and of itself, but rather a brand established by the 11 PAs to serve as the umbrella trademark for all program offerings. This brand is used to synchronize program offerings, delivery models, applications forms, and marketing plans. The goals of Mass Save are: maximize the savings with each customer, capture economies of scale, minimize customer confusion, and meet the goals of the Green Communities Act (which mandated the acquisition of all cost-effective energy efficiency). When Massachusetts first moved to this statewide brand with utility implementers, stakeholders recognized that it was important to build on the experience and strengths of the individual programs and avoid the disruption that would occur with a completely new delivery entity.^{41/} While program delivery has been improved and

^{38/} <http://rtf.nwccouncil.org/>

^{39/} <http://www.neep-reed.org/>

^{40/} <http://www.ilsag.info/>

^{41/} MassSave: A New Model for Statewide Energy Efficiency Programs. ACEEE 2012 Summer Study on Energy Efficiency in Buildings.

customer confusion reduced, implementing the statewide model is a significant coordination effort for the PAs. To meet these challenges, Mass Save established management committees and working groups that include representatives from all PAs, focus on specific sectors and programs, and meet regularly. These working groups are similar to working groups and committees in California. Both the Massachusetts and California models balance the needs for consistency with flexibility to meet local customer needs.

- b. *How might their models be applied for California; what changes to CPUC policies or rules that would be needed?*

The current program administration structure is successfully capturing savings. However, there are some major policy issues driving challenges under the existing framework which should be examined.

Commission policy leads to a large pool of stranded savings potential because PAs and implementers are only acknowledged and rewarded for targeting energy savings attributable to the installation of equipment above current code levels. A reconsideration of existing conditions baseline and of the use of TRC test could allow California to emulate successful models in other states.

- Q.3: *Would some kind of “challenge” program be helpful, such as the long-ago “Golden Carrot” competition, or in more recent years an X-prize competition?*

Yes, challenge programs have been demonstrated to be effective in the past, and new challenge programs should be and are being investigated. To be successful, California should collaborate not statewide, but nationally or internationally, and leverage existing relationships IOUs have developed.

PG&E is in the initial stages of investigating a revival of the Golden Carrot prize that was developed over 20 years ago in coordination with over 30 US utilities. The Golden Carrot was an effort to award and recognize an organization for accomplishing a specific goal desired by the sponsors. At the time, the mission was to push appliance manufacturers to develop a refrigerator that exceeded Federal Appliance Standards by 30% and was also chlorofluorocarbon free.

