

**PACIFIC GAS AND ELECTRIC COMPANY, SOUTHERN CALIFORNIA  
EDISON, SOUTHERN CALIFORNIA GAS COMPANY, AND SAN DIEGO  
GAS AND ELECTRIC COMPANY**

**RESPONSES TO EM&V IMPACT, PROCESS, AND MARKET  
ASSESSMENT RECOMMENDATIONS**

**May 28, 2010**

# IOU Responses to EM&V Impact, Process, and Market Assessment Recommendations

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Industrial

New Construction

California Advanced Homes Program

Savings By Design

HVAC

High Impact Measures and Specialized Commercial

Comprehensive Packaged Air Conditioning Systems (CPACS)

Mass Markets – HVAC

Codes and Standards

Emerging Technologies

Workforce Education and Training

Workforce Education and Training Program

Building Operator Certification (BOC)

Education and Training

Food Services Technology Center

Technology and Testing Center (TTC)

Mobile Energy Unit (MEU)

Engineering Design Resource Program (EDR)

Marketing, Education and Outreach

Institutional Partners

California Community Colleges

California Department of Correction and Rehabilitation CDCR

University of California – California State Universities UC-CSU

Government Partners

Local Government Partners

## Introduction

Under the oversight of the California Public Utilities Commission (CPUC), the California investor-owned utilities (IOUs)—specifically, Southern California Edison (SCE), San Diego Gas and Electric Company (SDG&E), Southern California Gas Company (SoCalGas), and Pacific Gas and Electric Company (PG&E)—administer a portfolio of energy efficiency (EE) programs that help the state save a significant amount of energy.

To optimize the design and performance of EE programs administered during the 2006-2008 program cycle, the IOUs commissioned a number of process evaluations that were performed by independent evaluation experts. Many of the recommendations and findings from those process evaluations were integrated by the IOUs into the 2010-2012 EE Program Implementation Plans (PIPs). Many recommendations will be subjected to further investigation while others were rejected, for a variety of reasons.

In the second half of the 2006-2008 EE program cycle, the CPUC commissioned numerous impact evaluations of high impact measures (HIMs), performed by independent evaluation experts, to understand the energy savings impacts of these HIMs. In some cases, these evaluators also offered recommendations that might apply to program design. In many cases, the 2010-2012 PIPs already included concepts that reflected those recommendations. In other cases, the impact evaluations generated responses more appropriately managed in processes outside of the PIPs, such as in workpapers or through ongoing cooperative work between the IOUs and the CPUC on DEER database values. Other recommendations will be subjected to further investigation and still others were rejected, for a variety of reasons.

This report summarizes the IOU responses to the recommendations from the 2006-2008 process and impact evaluations. This report responds to Decision 07-09-043, Attachment 7 at page 4 which requested the IOUs to submit responses to the final EM&V report findings and recommendations indicating what action, if any, will be taken as a result of study findings as they relate to potential changes to the programs.

Reflecting additional guidance from the CPUC's Energy Division (ED) (email correspondence between the IOUs and Jeanne Clinton, April 7, 2010), this report contains two major sections:

- A narrative section stating actions the IOUs are taking in the 2010-2012 programs to respond positively to recommendations from the 2006-2008 process and impact evaluations, including citations of the section of the relevant PIP that incorporates or could incorporate the recommendation
- An appendix that summarizes all IOU responses (both negative and positive) to the major findings and recommendations from each of the process and evaluation studies<sup>1</sup>

The narrative is organized by market segment or technology and then by impact or process evaluation.

As a general rule, each process evaluation applied to a single utility, and the impact evaluations applied to all utilities. However, exceptions exist. Therefore, the report indicates whether an evaluation is statewide or specific to one or more utilities. Responses to most of the statewide recommendations reflect the joint response of all the IOUs. However, because the IOU programs are aligned but not identical, in some cases responses vary from utility to utility. The slight variations in responses from utility to utility are also indicated.

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<sup>1</sup> SDG&E and SoCalGas provided Energy Division at the Knowledge Transfer meetings with a copy of the recommendations and utility responses to their various program process evaluations.

## Residential

### Impact Evaluations

#### ***Upstream Lighting Program (ULP) (Statewide)***

The investor-owned utilities (IOUs) have discussed and evaluated the recommendations from the impact evaluation *Final Evaluation Report Upstream Lighting Program (ULP)*, a high impact measure (HIM) study conducted by KEMA and Cadmus. The recommendations below have been or will be integrated into the ULP Basic and Advanced Lighting Program Implementation Plan (PIP), as described below.

**Recommendation 2:** IOUs should take measures to minimize sales to non-IOU customers, monitor the market for evidence of leakage both prior to and after the initial sale, and report quarterly on the results of these efforts.

**PIP page or section:** Page 51 c, 70

**Response:** The ULP has been concerned about the leakage issues and has implemented a full range of activities to monitor leakages. (Leakage refers to product rebated by the IOUs that is sold outside the IOU territory.) The IOUs feel strongly that preventive actions should continue, and will continue to all monitoring activities as appropriate. Reporting will be done in accordance with Energy Division (ED) guidelines.

**Recommendation 5:** Program Response to Lighting Exchange Impact Evaluation Findings, high level of free-riders, with NTG=.66 rather than .80 as planned

**PIP page or section:** Not addressed in PIP.

**Response:** The Lamp Exchange Program will address the items cited in the HIM Evaluation Report by implementing the following during the 2010-2012 program cycle:

1. The Lamp Exchange Program will reschedule event locations to coincide with CARE eligible cities and hard to reach communities. SCE agrees. SDG&E disagrees. PG&E does not have an Exchange Program.
2. The Lamp Exchange Program will work with SCE's Call Center to develop a schedule of random calls to confirm lamp installation. This quality control process will be consistent with standard SCE's program quality control process. SCE agrees. SDG&E: Agree overall but each IOU will implement different strategies to try to accommodate this request. SDG&E does not do post inspections of Lighting Turn-in event customers.

PG&E does not anticipate running a lamp exchange program at this time.

#### ***Appliance Recycling Program (ARP) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the impact evaluation *Residential Retrofit, ARP section, HIM Study* conducted by Cadmus. The recommendation below has been or will be integrated into the ARP PIP, as described below.

**Recommendation 1:** The evaluation further recommends that greater emphasis be placed on quality control related to data collection. The accuracy of analytic methods such as those undertaken for this evaluation is predicated on the availability and quality of data contained in program implementation databases.

**PIP page or section:** 98 (Section 5c-Program Design to Overcome Barriers), 102 (Section 6a-Statewide IOU coordination)

**Response:** PG&E identifies the value in collecting more data on recycled models and are currently reviewing additional field names for the data collection. SCE has implemented the Enerpath real-time GPS system and can easily refine the level of data collection details to support M&E needs as requested. SDG&E currently has a system in place, the SMART which allow us to capture data collection on an weekly basis.

### ***Home Energy Efficiency Rebates (HEER) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the impact evaluation *Residential Retrofit, Appliance Section, HIM study* conducted by Cadmus. The recommendations below have been or will be integrated into the HEER PIP, as described below.

**Recommendation 1:** Primary Issues were installation of attic insulation were pre-existing insulation exceeded the program limit of R-11 and the installation of wall insulation where insulation was already present or between two similarly conditioned or unconditioned spaces. We recommend that site inspections be conducted in the future to continue to check that installations are meeting program eligibility requirements.

**PIP page or section:** This recommendation is too detailed for inclusion in PIPs.

**Response:** SCE, PG&E and SDG&E/SCG will tighten our inspection process and program qualification verifications.

### ***Multi-Family Energy Efficiency Rebates (MFEER) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the impact evaluation *Residential Retrofit, Downstream Lighting, HIM study* conducted by Cadmus. The recommendations below have been or will be integrated into the MFEER PIP, as described below.

**Recommendation 1:** Provide more accurate and verifiable data in IOUs tracking database so the data could be more easily verified by the third parties.

**PIP page or section:** Page 133, Item 5a

**Response:** The IOUs agree. We currently track multiple data fields and some of them remain on the program documentation but not in the system. We would like to respectively request tracking system data field requirements so we can make these changes. In mid 2008, SDG&E changed to the CRM system (SAP product) to accommodate a more comprehensive reporting system. Once the data requirements are established we can try and accommodate the reporting request. PG&E will focus on improved data quality pending approval of GRC funding for a database upgrade.

## **Indirect Impact Evaluations**

### ***Community Language Efficiency Outreach (CLEO) (SCE)***

SCE as evaluated the recommendations from the indirect impact evaluation for CLEO conducted by ODC. The recommendations below have been or will be integrated them into the CLEO PIP, as described below.

**Recommendation 1:** Improve event and participant contact information to ensure that all program information aligns with what is reported in quarterly reports. Participant information should include: participant name, phone, address, and email; participant ethnic group/language



spoken; and finally the manner of contact with the participant (where/when/how the contact occurred and also what information and energy efficiency items were provided).

**PIP page or section:** N/A

**Response:** SCE agrees to improve event and participant contact information to ensure all program information aligns with what is reported. In the 2010-12 program cycle, SCE will do this by:

1. Creating a standard CLEO participant template the program implementer will use to record all necessary contact information (participant name, phone, address, email, ethnic group/language spoken, and manner of contact with the participant).
2. Creating a program tracking database to track all program participant and contact information.

**Recommendation 2:** The program might consider tracking telephone hotline calls (contact information, reason for call, information provided, date of call, programs recommended) so that future evaluations can assess the impact of telephone consultations. Notably, this evaluation did not attempt to evaluate this program component and it is possible that the program already tracks these calls.

**PIP page or section:** N/A

**Response:** We are currently tracking these calls but in the 2010-12, SCE will create a standard CLEO template the program implementer will use to track all incoming calls in more detail. The template will capture the following information; contact information, reason for call, information provided, date of call, programs and/or services recommended).

**Recommendation 3:** The program may also consider tracking website statistics as this might be another way to calculate program reach in future evaluations. It is also recommended that the program track the total number of participants or attendees at each booth event in addition to the number of participants that took a HEES survey. This information would allow evaluators to analyze program's penetration rate by looking at the number of booth event participants that took a HEES survey. By analyzing these data, an evaluator can assess the multiple levels of participation based on the depth of information received by each participant.

**PIP page or section:** N/A

**Response:** We are already tracking program participants; SCE agrees additional tracking will help calculate the program's reach in future evaluations. In the 2010-12, SCE will make an effort to track and/or implement the following items:

1. Website statistics; visitors per day, per month, etc.
2. Provide capability for event registration and mailing list on the CLEO website
3. Total number of booth attendees/visitors
4. Total number of booth attendees/visitors who take a HEES Energy 5 Survey (already implemented)
5. Total number of seminar attendees/visitors (already implemented)
6. Total number of seminar attendees/visitors who take a HEES Energy 5 Survey (already implemented)

## Process Evaluations

### ***Upstream Lighting Program (ULP) (SCE/SDG&E)***

The IOUs have discussed and evaluated the recommendations from the ULP process evaluation conducted by KEMA. The recommendations below have been or will be integrated them into the ULP Basic and Advanced Lighting PIP, as described below.

**Recommendation 1:** Increase consumer education about the increased performance and capabilities of newer CFLs and how to shop for CFLs (e.g., proper matching of CFL types and features with lighting applications).

**PIP page or section:** Page 44, 62

**Response:** The ULP team agrees with many of KEMA's fine points in this recommendation. Below you will find a point-by-point discussion for this recommendation:

1. Concerning the recommendation on using Flex Your Power to promote increase CFL performance, SCE will share the recommendation to develop ads that educate customers on specialty CFL products and their proper application in home with the ME&O task force and program implementers and work to determine how this recommendation can best be applied to future Statewide, Marketing, Education and Outreach campaigns. Flex Your Power is currently in the midst of a brand assessment that will determine the brand and guide future messaging for the Statewide, Marketing, Education and Outreach program. This action will be implemented in the 2010-2012 program cycle.
2. Concerning the recommendation to make a video available to educate consumers, the ULP team believes distributing training video may not help us reach the mass-market in a cost effective manner. The program team would prefer to work with Market Education Outreach (MEO) and its sub-program Integrated Marketing and Outreach (IMO) to design appropriate mass-market advertising and/or targeted seasonal campaign to address this recommendation. This action will be addressed as part of 2010-2012 program cycle.
3. The ULP team agrees that more retailers should display eye-catching signs in the store to educate the consumers. We are currently in the process of improving the design of the signs. Once the new signs are available, the ULP team will initiate a "signage campaign" to the participating retailers to tell them to contact SCE when they need additional signs or have missing signs. This action can be implemented in 2010.
4. In addition to the "signage campaign", SCE will also be assessing why so many retailers are not displaying the required signs. We will start this effort by reviewing our inspection records to see if any patterns can be spotted. Additional research such as mystery shopper to inspect randomly selected stores may also be implemented, based on the outcome of the analysis. This action may be resolved in 2010.
5. SCE will also work with our inspection team to strengthen the inspection methodology to make sure the process is rigorous to provide timely feedback to the ULP team. This action can be implemented during 2010-2012 program cycle. The results from this implementation will be included in the 2010-2012 process evaluation for verification.

**Recommendation 2:** Work with Flex-your-Power and SCE's own marketing resources to develop a consumer education campaign to encourage early replacement of incandescent bulbs with CFLs.

**PIP page or section:** Not addressed in PIP.

**Response:** Please refer to SCE's response to process recommendation #1, above. We agree that with only 20% of sockets in the household occupied by the CFLs, there is a lot of room to improve. The ULP team would like to work with the MEO program team and IMO program team to design the appropriate mass media, seasonal campaigns and program marketing activities to design the appropriate marketing tactics to promote early replacement of incandescent bulbs. This action will be part of 2010-2012 program implementations.

**Recommendation 5:** Work with other California utilities to organize a workshop to discuss best practices for CFL promotion and education.

**PIP page or section:** Page 47 & 65

**Response:** SCE agrees. This is a good recommendation, and is similar from what we have done before as a statewide team. This activity will start in 2010.

**Recommendation 6:** Continue to be careful about introducing new technologies like dimmable CFLs or LED products, which may not yet provide the level of performance that consumers expect.

**PIP page or section:** Page 59

**Response:** SCE agrees that it is prudent to exercise care when introducing advanced lighting products. We are considering a testing process that will help us to determine product quality in terms of specific features that we feel contributes the most towards meeting our goal of filling sockets. These features include: smoothness of dimming, run-up time of covered lamps, ballast sizes that do not constrict connection to a socket, color consistency, reflectors that do not extend beyond the typically recessed fixture opening, and accurately labeled packaging. The initial life test at 100 hours could be applicable along with short versions of rapid cycle testing. This action will be part of 2010-2012 program implementations. SDG&E: Agree overall but each IOU will implement different strategies to try to accommodate this request

**Recommendation 7:** Use price data from the shelf surveys to inform decisions about determining specialty CFL incentive levels.

**PIP page or section:** Page 61

**Response:** SCE agrees with this recommendation. We will use price data at our discretion to assist us in determining incentive levels for specialty CFLs, however, our incentive levels are guided by our avoided costs.

**Recommendation 9:** The SCE program should discontinue some practices introduced to discourage "CFL leakage" while continuing others that have alternative program benefits.

**PIP page or section:** Page 51, 70

**Response:** SCE agrees with this recommendation. However, SCE would like to reserve the option to take action to mitigate leakage when we see the need. These leakage mitigation actions would work best if SCE has the flexibility to discontinue selectively, and continue to apply controls selectively. This action will be part of 2010-2012 program implementations. Again, KEMA provided SCE with conflicting recommendations. SCE will continue to take preventive actions managing product leakage.

**Recommendation 10:** Keep retailers more informed about planned changes in ULP allocation strategies and the rationale for these decisions. Give both manufacturers and more retailers more advanced notice of changes in program strategy.

**PIP page or section:** Page 48, 67

**Response:** SCE fully acknowledge and support our participating retailers. We have begun to notify manufacturers and major retailers of the 2010-2012 program plans. SCE tends to keep manufacturers well informed, and they in turn pass the information on to the retailers. However, we do not wish our retailers and manufacturers to invest money into gearing up for a particular program scenario that may not materialize.

***PG&E Mass Markets (CFL) Program (PG&E)***

PG&E has evaluated the recommendations from the process evaluation, *2006–2008 PG&E Mass Markets, Program Portfolio and CFL, Swimming Pool Market Characterizations*; study ID PGE0282.01, conducted by KEMA. The recommendations below have been or will be integrated them into the PGE2100, Residential Energy Efficiency Program PIP, as described below.

**Recommendation 12:** The PG&E program should continue to monitor for CFL leakage (sale of product outside of PG&E’s service area) as long as current efforts are not overly taxing program resources.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** PG&E accepts and will do this.

**Recommendation 13:** Educate manufacturers and retailers on the bulk purchase limits. These limit how many ULP-discounted lighting products that consumers can get in a single purchase. They are designed to make it more difficult for consumers to try to resell large quantities of ULP-discounted products. Issues at this level of granularity are not addressed in the PIP.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** PG&E accepts and will do this.

**Recommendation 13:** Educate manufacturers and retailers on the bulk purchase limits. These limit how many ULP-discounted lighting products that consumers can get in a single purchase. They are designed to make it more difficult for consumers to try to resell large quantities of ULP-discounted products.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** PG&E accepts and will do this.

**Recommendation 16:** Keep retailers more informed about planned changes in ULP allocation strategies and the rationale for these decisions. Give both manufacturers and more retailers more advanced notice of changes in program strategy.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** PG&E accepts and will do this.

***Appliance Recycling Program (ARP) (SCE, with PG&E)***

SCE has evaluated the recommendations from the process evaluation *Residential Retrofit, ARP section*, conducted by KEMA. The recommendations below have been or will be integrated them into the ARP PIP, as described below. PG&E has also evaluated these recommendations, as noted below.

**Recommendation 2:** The incentive is an important message but other messages such as the cost of operation the environmental issues are important as well. People who cancelled and who were not aware of electrical costs or environmental harm said that they might not have cancelled if they had known this information. Messages about this program should continue to highlight the direct incentive, the operational incentive, and the environmental affects.

**PIP page or section:** 101-102 (Section 6a), 103-104 (Section 6b)

**Response:** The SCE's ARP program management team will work closely and in concert with the SCE Customer Experience Management (CEM) marketing team to ensure that all appropriate EE and environmental marketing messages are communicated effectively to the appropriate target audiences. . PG&E agrees.

**Recommendation 3:** Aside from the lack of a personal touch, the access to the webpage appears to be a problem. We recommend that the number of clicks to the recycling page be reduced to no more than two clicks. We also recommend that an attempt be made project a more person touch.

**PIP page or section:** Not addressed in PIP.

**Response:** SCE agrees that the web page could be improved. However, determining the appropriate number of clicks and complying with this recommendation does not take into account the overall online customer experience. Instead, integrating the ARP and other applicable programs for the specific customer segment into an engaging user experience, designed to inform customers of the internal and external benefits of DSM programs will ultimately increase their participation in utility offered programs. PG&E agrees.

**Recommendation 4:** The cancellation data bear out our suspicion that a high percentage of these units are given away. It also confirmed that many of these units are newer and younger. The characteristic of these customers is also different from other participants. These units are still worth getting off the grid but some refined channel and tailoring of messages is likely to be needed to prevent the escape of these units.

**PIP page or section:** Not addressed in PIP.

**Response:** The ARP management team will consider working with market research and other applicable groups (i.e., EM&V) to better understand the characteristics of those customers who cancel their scheduled pick up appointments and choose to give their units away. PG&E agrees.

**Recommendation 5:** With respect to working with appliances dealers:

- About 32 percent of new appliance dealer customers schedule a removal but in only 20 percent of cases does the removal occur. Appliance dealers have a cancellation problem that is almost of the same magnitude as the program's cancellation problem.
- The data collected from one major distribution center suggests that as many 80 percent of refrigerator sales actually leave units on the grid. The number is actually lower than this because units going into new housing are not accounted for. However, this suggests that there are a sizeable number of units that could be captured through dealers.
- A well-designed and monitored experiment should provide additional insight and is strongly recommended.

**PIP page or section:** 101 (Section 6a-iv. Marketing and Outreach Plans), 105 (Section 6g-Pilots)

**Response:** The IOUs are currently in the process of running pilots with retailers, aimed at decreasing the number of cancellations. This can potentially involve the use of a retailer for pickup; however, the customer initiation and recycling service contractor process would remain unchanged.

### ***Home Energy Efficiency Rebates (HEER) (SCE)***

SCE has evaluated the recommendations from the HEER process evaluation conducted by KEMA. The recommendations below have been or will be integrated them into the HEER PIP, as described below.

**Recommendation 1:** Do more direct mail or bill insert promotions of the SCE rebates, especially for non-refrigerator rebates.

**PIP page or section:** N/A

**Response:** We agree with this recommendation and agree to perform a comprehensive marketing assessment of our strategy, tactics, and supporting marketing material in 2010.

**Recommendation 2:** Continue promotion of generic energy savings messages with more emphasis on the link between home energy use and global warming.

**PIP page or section:** N/A

**Response:** We agree with this recommendation and will work with our marketing department to continue these efforts to increasing the links between home energy use and global warming and to develop a plan to increase marketing activities in 2010.

**Recommendation 3:** Do more Cross-promotion of HEER non-refrigerator rebates among participating retailers, insuring that all salespersons of HEER-eligible equipment get rebate information.

**PIP page or section:** N/A

**Response:** SCE agrees with this recommendation. SCE is piloting with a major retailer to provide HEER rebate materials in the store, implement retailer sales staff training, and disseminate all rebates information to the sales staff. We will expand this process to improve our communication of the total scope of the HEER offerings to our participating retailers

**Recommendation 4:** Work with the Home Energy Efficiency Survey (HEES) program to insure that HEES participants get easier access to HEER program information

**PIP page or section:** N/A

**Response:** SCE is currently doing this. We plan to further strengthen this over time with other implementation (e.g., universal audit tool).

**Recommendation 6:** Try to reduce free ridership levels, by introducing more sales person/contractor incentives (i.e., spiffs), adding sales person/contractor training, and setting explicit goals to recruit new contractors and retailers.

**PIP page or section:** N/A

**Response:** SCE agree with the need to reduce free-ridership. We have discussed the issue of spiff with our major retailing partners. Our partners would like us not to implement such program element, because it would alter their sales staff's incentive and compensation plan. We believe moving the program design to increase the level of efficiency to Energy Star "percent better" rated appliances, and to provide more retailer training would be more effective.

### ***Home Energy Efficiency Rebates (HEER) (SCG)***

SCG has evaluated the recommendations from the HEER process evaluation conducted by EcoNorthwest. The recommendations below have been or will be integrated them into the HEER PIP, as described below.

#### **Recommendation 1:**

There does not appear to be a large savings potential remaining in the residential sector.

**PIP page or section:** N/A

**Response:** SoCalGas has added new measures to the new program cycle - thermal activated restricting low flow showerhead, cold water wash detergent and working on the development of new measures, cold water wash default clothes washer.

#### **Recommendation 2:**

Simplify rebate application process.

**PIP page or section:** N/A

**Response:** Rebate processing issues being resolved by implementation of CRM & BW reporting. Continuous improvements are implemented as new tools are introduced and upgrades to the CRM/SAP are implemented. Training modules are being established for all aspects of Program Management.

#### **Recommendation 3:**

Increase the use of the SoCalGas website to promote programs and simplify the application process

**PIP page or section:** N/A

**Response:** Enhanced SoCalGas website to promote SoCalGas programs and services and cross promoting LIEE/CARE to residential customers. Exploring opportunities with CRM to offer online applications for residential customers.

**Recommendation 4:** Increase communication with participating retail stores to energize rebate marketing.

**PIP page or section:** N/A

**Response:** SoCalGas is expanding Big Box retailer participation in the SoCalGas point of sale rebate program. Limited Marketing Budget makes individual IOU TV advertising very expensive. SoCalGas is working through the SW ME&O program to improve customer education & outreach.

**Recommendation 5:** Implement an application processing report that provides weekly summaries and aging reports on specific applications. Implement internal deadlines for the resolution of application processing issues.

**PIP page or section:** N/A

**Response:** Rebate processing issues being resolved by implementation of CRM & BW reporting. Continuous improvements are implemented as new tools are introduced and upgrades to the CRM/SAP are implemented. Training modules are being established for all aspects of Program Management.

**Recommendation 7:** Redesign the application form to eliminate data that is not required for rebate processing and impact calculation. Include a simple checklist of required information.

**PIP page or section:** N/A

**Response:** Rebate processing issues being resolved by implementation of CRM & BW reporting. Continuous improvements are implemented as new tools are introduced and upgrades to the CRM/SAP are implemented. Training modules are being established for all aspects of Program Management.

***Multi-family Energy Efficiency Rebates (MFEER) (SCE with the other IOUs)***

SCE, as appropriate in concert with the other IOUs, has evaluated the recommendations from the MFEER conducted by KEMA. The recommendations below have been or will be integrated them into process evaluation the MFEER PIP, as described below.

**Recommendation 1:** Do more frequent broad direct mail promotions of the MFEER rebates, especially for non-lighting measures. Also conduct targeted mailings to hot-weather zones within the SCE service territory. In addition to doing more frequent mailings overall, the MFEER Program should consider targeting mailings featuring “hot weather” measures such as room air conditioners, pool pumps, and windows to hot zones within the SCE service territory such as Riverside, Fresno, China Lake, and El Centro.

**PIP page or section:** Page 131, Item 4a, Par 5

**Response:** The IOUs agree with many of KEMA’s marketing recommendations. In preparing the 2010-2012 marketing plan for the MFEER program, we have included strategies and tactics to target both contractors and property owners and managers. These marketing actions may include the following:

1. Continue to leverage fact sheet: A new program fact sheet was designed in 2009 outlining the program and the different measures available for property managers and owners. Due to limited marketing funds, we posted this fact sheet on the website only.



2. Continue to update website: In 2010-2012 program cycle, the SCE marketing team will identify constructive changes to our website. Part of the effort will be to develop a website enhancement plan for all multi-family property owners/managers. The goal is to make access easier for all program participants.

**Recommendation 3:** Do more direct mail marketing to past Program participants. One recommendation of the 2007 evaluation of the 2004-2005 MFEER Program was: "The program should mine its tracking data in order to identify energy efficiency opportunities among prior participants (both retrofit and replace on burnout)." Multifamily property managers/owners who have participated in the Program in the past are likely to be more open to invest in additional energy efficiency projects.

**PIP page or section:** Page 131, Item 4a, Par 5

**Response:** The IOUs agree with this recommendation, within budget consideration.

**Recommendation 4:** Secure the support of a SCE commercial account representative to help the MFEER Program recruit large property managers and communicate Program information to them. With recent staff reductions, the MFEER Program could use all the help it can get to help recruit these large property managers.

**PIP page or section:** Page 134, Par 2

**Response:** Since the process evaluation, SCE has hired a new program manager to support the MFEER program. We agree with the recommendation and are currently working closely with our business solution team for improvement. We are currently talking to various internal groups to assess the needs for commercial account representative. This decision will depend on many factors such as manpower and program administration cost limitations.

**Recommendation 5:** Develop metrics to measure progress in energy-efficiency AKA for property managers.

**PIP page or section:** Page 134, Par 4

**Response:** The IOUs agree with this recommendation. During the 2006-2008 process evaluation, we have started to develop baselines for selected key program metrics. We will continue this process during the 2010-2012 program cycle.

**Recommendation 7:** Resume more frequent participant satisfaction callbacks. The SCE MFEER Program used to call back nearly all its participants to assess satisfaction with the MFEER-rebate equipment and installations. However, interviews with program managers and staff in 2008 indicated that this practice had largely been discontinued. The high level of participant dissatisfaction discovered by the process evaluation survey suggests that participant satisfaction callbacks should be resumed – although it would not be necessary to call back nearly all the participants, as had the practice during the 2004-2005 program.

**PIP page or section:**

**Response:** Independent of this recommendation, SCE has resumed a high percentage of customer satisfaction callbacks. We will continue this practice until we can enhance the inspection process indicated in our response above.

**Recommendation 8:** Establish clear quality control protocols for contractors and make sure that all participating contractors are aware of them. The 2006-2008 MFEER Program participants were much less likely than 2005 Program participants to say that their contractors were responsive to their complaints, provided performance guarantees for installed equipment, or provided information on manufacturer warranties.

**PIP page or section:** Page 132, Item C

**Response:** The IOUs agree with your recommendation. The number one priority for the MFEER program is to improve customer satisfaction, especially from the perspective of property owners and managers. As indicated in our responses above, we will take action in 2010 to improve the situation. We are planning on having all the contractors that are currently participating in program attend a program workshop. The workshop will provide a program overview, set both program and customer satisfaction expectations. We will provide a folder with pertinent information for contractors.

**Recommendation 9:** Make it easier for property managers/owners to find replacement bulbs. One of the most common complaints of 2006-2008 MFEER Program participants was that they had trouble finding replacements bulbs when one of their bulbs burned out. Many retailers do not carry the pin-based fluorescent bulbs that are usually installed in multifamily buildings.

**PIP page or section:** Page 136, Item E

**Response:** The IOUs are moving the program to use higher quality and available products such as GU24 based products. When product failed while warranty is still in effect, we are asking our program participants to contact manufacturers.

**Recommendation 10:** Actively recruit new contractors to participate in the program including tapping into contractors working with other SCE energy efficiency programs. Monitor MFEER program savings achievements to assess whether purging of unlicensed contractors is affecting progress towards savings goals.

**PIP page or section:** Page 141, Item C

**Response:** The IOUs do not believe tightening the licensing requirements for our contractors will adversely impact our program results. We believe this is a positive step. We do agree that the program will continue to expand its contractor participation, especially for non-lighting contractors so we can expand the program's focus. To monitor this situation we will be monitoring the contractors' license type. The plan is to recruit additional contractors working with Express Efficiency, Direct Install to support MFEER measures beyond lighting. This action will be implemented in 2010. At this time, the program requirements for qualifying new contractors are completely phased-in and we are not seeing any adverse program affects.

**Recommendation 12:** The MFEER Program should work with Home Energy Efficiency Survey (HEES) Program to help develop a MF-HEES audit instrument for the multifamily sector. This MF-HEES instrument should cover a broad range of measures including lighting, appliances, HVAC and building envelope, pools, etc.

**PIP page or section:** Page 135, Par 2

**Response:** The IOUs agree with this recommendation. The program team is currently working with the HEES team to develop requirements for the MF-HEES survey for multi-family buildings. The requirements for the MF-HEES will take a whole building approach consistent with our whole house approach for single-family homes. Once these requirements are developed, the

MF-HEES would need to be programmed and tested prior to implementation. This is a difficult assignment and we expect this work to start in 2010 and may take a full program cycle to complete.

**Recommendation 13:** Use program satisfaction and other program indicators identified in this report as benchmarks to track future program performance.

**PIP page or section:** N/A

**Response:** Based on the program theory and logic diagram, the MFEER program is designed to work closely with contractors to effectively reach the apartment property owners. The program design includes the use of measure rebates to induce energy efficiency installation behavior from the property owners with the support of the contractors.

1. Program results – with the goal to produce MFEER program savings from a diverse pool of measures to minimize program risk
2. Program participants (property owners) and program actors (contractors) – Program satisfaction, awareness, knowledge and attitude (AKA) and behavior
3. Program marketing – effectiveness of marketing activities and awareness level

Whenever possible, a results comparison between 2004-2005 vs. 2006-2008 program cycle is included. These comparison and analysis are included in our process evaluation.

### ***Multi-family Energy Efficiency Rebates (MFEER) (SCG)***

SCG has evaluated the recommendations from the process evaluation MFEER conducted by EcoNorthwest. The recommendations below have been or will be integrated them into the MFEER PIP, as described below.

**Recommendation 1:** The rebate application should be simplified.

**PIP page or section:** Not addressed in PIP.

**Response:** The multi-family program is being redesigned (including online rebate process) to capture all best practice and process improvements.

**Recommendation 2:** SoCalGas needs to make an effort to update information on the program website routinely.

**PIP page or section:** Not addressed in PIP.

**Response:** Key area was the updating of the website to improve the customer experience and provide a better means of customer tracking.

**Recommendation 3:** SoCalGas should develop a clear marketing strategy for the program.

**PIP page or section:** Table 5, Pg 135

**Response:** Targeted marketing strategy is being formulated for the segment and detailed collateral will be distributed among our contractors, who are in essence the sales force to help promote the multi-family program and new measures such as a dual heat wall exchanger furnace.

**Recommendation 4:** Verification of controllers should be an integral part of the program.

**PIP page or section:** Not addressed in PIP.

**Response:** Strategies for verifying energy savings for multi-family controllers completed and program is currently being updated to include new verification process to include pre and post system assessment and contractor inspector training.

**Recommendation 5:** SoCalGas should coordinate with similar or complimentary programs offered by SCE and SDG&E.

**PIP page or section:** Pg 142 section e

**Response:** All redesign recommendations are being reviewed and implemented across both utilities and in coordination with PG&E and SCE. Program look, feel and design will be in conjunction with statewide offerings.

**Recommendation 6:** SoCalGas should improve its customer tracking systems.

**PIP page or section:** Pg 134 Paragraph 2

**Response:** The implementation of CRM also provides opportunities for better customer tracking of program participation and customer contact.

***Comprehensive Mobile/Manufactured Home Program (CMHP) (SCE)***

SCE has evaluated the recommendations from the process evaluation CMHP conducted by KVD Consulting. The recommendations below have been or will be integrated them into the CMHP PIP, as described below.

**Recommendation 1:** Focus much more program activity in climate zones 10, 14, and 15.

**PIP page or section:** 14

**Response:** The program will study the analysis, will examine and prioritize the zip codes and in 2010 be sure that we are beginning and continuing with service in these climate zones first. At the end of each program year starting 2010, we can provide a percentage of participation by climate zones served by percentage to monitor our progress.

**Recommendation 2:** Focus much more program activity in areas with a high-density of mobile homes

**PIP page or section:** 6

**Response:** We will study the analysis and pay special attention to the high-density areas. In the 2006-2008 program cycle, we did pay special attention to Hemet where it is recognized to be one of the highest-density mobile home areas. We will continue to examine the high-density areas and develop a plan to increase activities by starting in 2010.

**Recommendation 3:** Consider adding more measures to what is offered under the program.

**PIP page or section:** 19

**Response:** This is a good idea. We will start a search of additional cost effective measures to preserve the integrity of program. We will come up with a list of recommendations in 2010. We will also make sure this program design is consistent with our upcoming MIDI program design.

**Recommendation 4:** Consider upgrading the lighting fixtures and showerheads offered by the program.

**PIP page or section:** 19

**Response:** The program will complete a review of suppliers and product specifications to provide the highest quality at sustainable pricing. We will complete and implement this review by year-end 2010.

**Recommendation 5:** A comprehensive review of QC controls should be undertaken, including recordkeeping and inspection processes.

**PIP page or section:** 20

**Response:** Currently, the program implementer is conducting their own QC of projects completed as well as, the inspection for these same projects. An SCE inspector accompanies the implementer's inspector in a "check the checker" capacity.

The program has identified this as a concern and is currently reviewing all QC controls and inspection processes. The program will re-assess the implementer's installation and QC procedures and make improvements in 2010.

Moreover, due to specific training and equipment required to conduct inspection of HVAC measures, the program is evaluating the use of another third-party entity to conduct inspections. The program will evaluate the cost effectiveness and feasibility of purchasing the required test equipment and providing SCE inspectors with the necessary training to conduct inspections.

**Recommendation 6:** Digitize all participant records and integrate all aspects of records into one dataset, including inspection records

**PIP page or section:** 20

**Response:** Currently, the program implementer is conducting their own QC of projects completed as well as, the inspection for these same projects. An SCE inspector accompanies the implementer's inspector in a "check the checker" capacity.

The program has identified this as a concern and is currently reviewing all QC controls and inspection processes. The program will re-assess the implementer's installation and QC procedures and make improvements in 2010.

Moreover, due to specific training and equipment required to conduct inspection of HVAC measures, the program is evaluating the use of another third-party entity to conduct inspections. The program will evaluate the cost effectiveness and feasibility of purchasing the required test equipment and providing SCE inspectors with the necessary training to conduct inspections.

**Recommendation 7:** Add inspection status categories to reflect situations where some work by installers was good and some inadequate, and some work was impossible due to inaccessibility of equipment.

**PIP page or section:** 20

**Response:** Currently, the program implementer is conducting their own QC of projects completed as well as, the inspection for these same projects. An SCE inspector accompanies the implementer’s inspector in a “check the checker” capacity.

The program has identified this as a concern and is currently reviewing all QC controls and inspection processes. The program will re-assess the implementer’s installation and QC procedures and make improvements in 2010.

Moreover, due to specific training and equipment required to conduct inspection of HVAC measures, the program is evaluating the use of another third-party entity to conduct inspections. The program will evaluate the cost effectiveness and feasibility of purchasing the required test equipment and providing SCE inspectors with the necessary training to conduct inspections.

**Recommendation 8:** Strengthen inspection process—the choice of which sites to inspect should not be done subjectively, but by a systematic set of criteria and random process.

**PIP page or section:** 20

**Response:** Currently, the program implementer is conducting their own QC of projects completed as well as, the inspection for these same projects. An SCE inspector accompanies the implementer’s inspector in a “check the checker” capacity.

The program has identified this as a concern and is currently reviewing all QC controls and inspection processes. The program will re-assess the implementer’s installation and QC procedures and make improvements in 2010.

Moreover, due to specific training and equipment required to conduct inspection of HVAC measures, the program is evaluating the use of another third-party entity to conduct inspections. The program will evaluate the cost effectiveness and feasibility of purchasing the required test equipment and providing SCE inspectors with the necessary training to conduct inspections.

**Recommendation 9:** SCE inspectors should be able to do entirely independent inspections

**PIP page or section:** 20

**Response:** Currently, the program implementer is conducting their own QC of projects completed as well as, the inspection for these same projects. An SCE inspector accompanies the implementer’s inspector in a “check the checker” capacity.

The program has identified this as a concern and is currently reviewing all QC controls and inspection processes. The program will re-assess the implementer’s installation and QC procedures and make improvements in 2010.

Moreover, due to specific training and equipment required to conduct inspection of HVAC measures, the program is evaluating the use of another third-party entity to conduct inspections. The program will evaluate the cost effectiveness and feasibility of purchasing the required test equipment and providing SCE inspectors with the necessary training to conduct inspections.

**Recommendation 10:** Conduct a comprehensive review of program marketing, and develop new strategies.

**PIP page or section:** 18, 19

**Response:** Currently, all program literature and marketing material is developed by the program implementer. Understanding the need for easier to understand and more customer friendly material with the SCE look and feel; the program is working with SCE Customer Engagement Management Marketing team to come up with a comprehensive marketing plan for 2010-2012 which will include direct mail marketing, leave-behind literature and cross-promotion of LIEE and other programs. Once this is completed, we will engage the implementer for actual implementation.

**Recommendation 11:** Consider developing leave-behind literature to tell customers what was done and its benefits

**PIP page or section:** 18, 19

**Response:** Currently, all program literature and marketing material is developed by the program implementer. Understanding the need for easier to understand and more customer friendly material with the SCE look and feel; the program is working with SCE Customer Engagement Management Marketing team to come up with a comprehensive marketing plan for 2010-2012 which will include direct mail marketing, leave-behind literature and cross-promotion of LIEE and other programs. Once this is completed, we will engage the implementer for actual implementation.

**Recommendation 12:** Consider marketing the program through bill inserts targeted at mobile home residents.

**PIP page or section:** 18, 19

**Response:** Currently, all program literature and marketing material is developed by the program implementer. Understanding the need for easier to understand and more customer friendly material with the SCE look and feel; the program is working with SCE Customer Engagement Management Marketing team to come up with a comprehensive marketing plan for 2010-2012 which will include direct mail marketing, leave-behind literature and cross-promotion of LIEE and other programs. Once this is completed, we will engage the implementer for actual implementation.

**Recommendation 13:** Review the literature, process, and logic involved in promoting the LIEE or other programs. It should be made more customer friendly.

**PIP page or section:** 18, 19

**Response:** Currently, all program literature and marketing material is developed by the program implementer. Understanding the need for easier to understand and more customer friendly material with the SCE look and feel; the program is working with SCE Customer Engagement Management Marketing team to come up with a comprehensive marketing plan for 2010-2012 which will include direct mail marketing, leave-behind literature and cross-promotion of LIEE and other programs. Once this is completed, we will engage the implementer for actual implementation.

**Recommendation 14:** Consider updating the training of program personnel on CMHP program design details, importance of good record keeping, and other relevant SCE programs.

**PIP page or section:** 20

**Response:** We agree that proper training of the implementer staff is essential for successful program outcome. The program is currently evaluating the breadth and the depth of the training requirements so we can address in the 2010 program cycle.

***Home Energy Efficiency Survey (HEES) (SCE)***

SCE has evaluated the recommendations from the HEES process evaluation conducted by EcoNorthwest. The recommendations below have been or will be integrated them into the HEES PIP, as described below.

**Recommendation 1:** Review the HEES algorithm to reduce the amount of recommendations delivered in the report that the customer has already executed or do not apply to the customer's household.

**PIP page or section:** 35

**Response:** SCE agrees that the HEES algorithm needs to be reviewed and updated in order to provide customers with a more accurate and personalized report. In the 2010-12 program cycle, SCE plans to make the following modifications to its recommendations table:

1. Work with SCE's engineering team to review the recommendations for accuracy, validity, and effectiveness.
2. Remove those recommendations that are either outdated or no longer apply to customer's households.
3. Add detailed information on each measure recommended to the customer, making the measure imperative rather than informative.
4. Add a section to the report, which highlights the measures customers have already implemented, serving as a "reality check" to the customer while at the same time reinforcing positive energy efficiency behaviors.

**Recommendation 2:** Heighten focus on other electric, water, and utility resources in the HEES marketing materials and reports.

**PIP page or section:** 35

**Response:** SCE will increase its focus on other electric, water, and utility resources in the HEES marketing materials and reports during the 2010-12 program cycle. The HEES program will do this by:

1. Incorporating a new headline / tagline into the HEES marketing materials and reports. The new headline / tagline will cite the benefits of the program, with the most prominent being increased knowledge of other energy efficiency programs.
2. Increasing the advertising aggressiveness of other energy efficiency programs on the results pages in the report. All of the current energy efficiency programs will be covered in greater detail by providing customers with program requirements and procedures. A one-page energy efficiency program fact sheet could be added to the report as an insert. In addition, a message that reads "Subject to change without notice" can be added to the fact sheet, as programs can change very quickly.
3. Updating the energy efficiency program weblinks with more specific weblinks. As an example, for the Home Energy Efficiency Rebate (HEER) Program, rather than directing customers to [www.sce.com](http://www.sce.com), the report will direct customers to [www.sce.com/residential/rebates-savings/appliance/energy-star-fridge.htm](http://www.sce.com/residential/rebates-savings/appliance/energy-star-fridge.htm) for Refrigerators and [www.sce.com/residential/rebates-savings/appliance/electric-water-heater.htm](http://www.sce.com/residential/rebates-savings/appliance/electric-water-heater.htm) for Electric Water Heaters.



**Recommendation 3:** Update the recommendations database

**PIP page or section:** 35-36

**Response:** SCE agrees that the recommendations database needs to be updated. It has generally remained the same since 2004, and in the 2010-12 program cycle. SCE will update the recommendations database.

**Recommendation 4:** Make the bill history automation project a key priority.

**PIP page or section:** 35

**Response:** SCE will prioritize the bill history automation feature in the 2010-12 program cycle and will take the following steps to do so:

1. SCE will work on integrating My Account customers' Service Account numbers automatically into the HEES On-Line survey platform, eliminating the need to enter the Service Account number.
2. SCE will research the feasibility of conducting an "E-Mail Blast" to all My Account customers, which will have their Service Account number embedded in the HEES On-Line survey link found in the "E-Mail Blast". This will enable customers to click on the link and take the survey, while eliminating the need to enter their Service Account number.
3. Research will also be conducted on the feasibility of populating Service Account numbers for SCE customers who are not My Account customers, also known as "naked" customers, based on customer name and/or address. This may or may not be implemented in the 2010-12 program cycle due to feasibility and/or cost.
4. In addition to the items mentioned above, SCE's ultimate goal would be to populate customers SoCal Gas and Water Agency account numbers, based on their SCE Service Account number. However, this may not be implemented in the 2010-12 program cycle based on issues such as security, legal, cost, feasibility, etc.

**Recommendation 6:** Increase cross-promotion of alternative HEES modes, and briefly describe each mode's advantages so that customers can make informed choices.

**PIP page or section:** 29

**Response:** SCE will increase customer awareness of the various HEES surveys (In-Home via Whole House, Mail-In, On-Line, and Phone), by aggressively cross-promoting the program in various areas. In the 2010-12 cycle, SCE plans to update the HEES survey. As part of this update, SCE will update its marketing materials to inform customers of the various survey modes, as well as provide a brief description of each mode and its advantages.

**Recommendation 7:** Provide more assistance to on-line users in completing the survey.

**PIP page or section:** N/A

**Response:** SCE agrees customers need more assistance in completing the On-Line survey. SCE will strive to make the On-Line survey more user-friendly by reviewing the number of questions in the survey, as well as researching the addition of pop-up windows and/or helpful tips for customers for questions that are tougher to answer. For example, customers may not know what type of defrost system they have in their refrigerator. A pop-up window or tip on the types of defrost systems commonly found in refrigerators may help the customer answer the question more accurately.

Also, in the 2010-12 program cycle, SCE plans to gather market research by coordinating with SCE's Customer Experience Management (CEM) team to conduct focus groups in hopes of determining the issues customers may have with the On-Line survey.

**Recommendation 9:** Continue using targeted in-language marketing

**PIP page or section:** 35

**Response:** SCE strongly agrees targeted in-language marketing has been very effective in raising customer awareness and encouraging customer participation in the program. SCE will continue to market to previously underserved communities in 2010-12. In addition, SCE will broaden its in-language marketing to encompass the Hispanic and African American communities, working in collaboration with the Community Language Energy Outreach (CLEO) program.

**Recommendation 10:** Find ways to better incorporate customer-specific information.

**PIP page or section:** 35

**Response:** SCE will continue to improve on incorporating customer-specific information into its HEES survey in the 2010-12 program cycle. Currently, SCE is researching the cost and feasibility of implementing an automatic Service Account number "pull" for all SCE My Account customers. With this feature, customers who login to their www.sce.com account would see a link to the HEES On-Line survey. Upon clicking this link, they would be redirected to the HEES On-Line survey, and their Service Account number would be automatically populated for them, thereby increasing the ease of use for the customer. Also, please see SCE's response to recommendation #4 for further information.

**Recommendation 11:** Make it clear to participants (particularly on-line participants) that the specificity of the recommendations depends on the level of input.

**PIP page or section:** N/A

**Response:** SCE will continue to specify that the recommendations customers receive depend on the level of input. This is already being performed in the On-Line survey. In the 2010-12 program cycle, SCE will consider integrating this same type of messaging on the printed Mail-In form, as well as updating the Phone auditor script with this same message.

**Recommendation 12:** Make customers aware of the various delivery mechanisms since they appear to offer different levels of service to participants.

**PIP page or section:** N/A

**Response:** It is agreed that SCE must make customers more aware of the various survey delivery mechanisms. In the 2010-12 program cycle, SCE will do this by:

1. Revamping the Mail-In survey to promote the On-Line, Phone, and In-Home (via the Whole House Program) surveys.
2. Revamping the On-Line survey page to promote the Phone and In-Home (via the Whole House Program). The Mail-In survey is already being promoted on-line.

**Recommendation 13:** Revise the survey to collect additional information and develop even more specific recommendations.

**PIP page or section: 37**

**Response:** In the 2010-12 program cycle, SCE will strive to collect additional information from customers and develop more specific recommendations. As part of this venture, SCE plans to investigate what it will take to develop a HEES survey tailored to multi-family residential buildings. SCE will need to develop a plan and scope, and may even perform a needs assessment, to find out what recommendations are vital to multi-family owners, as well as what information needs to be collected from them. All reasonable and cost-effective findings will be implemented in the program.

**Recommendation 14:** HEES needs to be more linked to other IOU programs so that participants know exactly which programs are available to them, and which programs match the recommendations in the audit.

**PIP page or section: 36**

**Response:** SCE agrees that the HEES program needs to be more linked to other energy efficiency programs. As part of this effort, SCE plans to use data on a real-time basis to push customer data to programs, which they may qualify for. Market intelligence gathered from customers based on their responses will also be provided to other programs. Also, please see SCE's Response to Recommendation #2.

**Recommendation 15:** Consider alternative messaging for the program. The primary marketing message with HEES is "save money." The utilities should also consider messages that indicate to the customer that the HEES is a tool that customers can use annually to save energy.

**PIP page or section: N/A**

**Response:** In the 2010-12 program cycle, SCE will work with its Marketing department to come up with new messaging for the program that speaks to saving energy and environmental impact. This messaging will be generally consistent with the major residential energy efficiency programs.

**Recommendation 16:** Review the wording of all recommendations to ensure that they are actionable.

**PIP page or section: 35**

**Response:** As stated previously in SCE's Response to Recommendation #1, SCE will review and update the recommendations database in the 2010-12 program cycle.

**Recommendation 17:** Coordinate with other energy efficiency programs and follow up with customers based on the information that the customer provides in the HEES program survey.

**PIP page or section: 33**

**Response:** SCE is currently coordinating with the Appliance Recycling Program (ARP) by providing the program with customer data based on how the customer answered the questions regarding refrigerators, as a form of lead generation. ARP then markets to these customers in hopes of customers recycling their refrigerators. In the 2010-12 program cycle, SCE will continue to provide ARP customer data as well as integrate with other energy efficiency programs in the same manner, such as the Home Energy Efficiency Rebate (HEER) Program and the Business Consumer Electronics (BCE) Program.

### ***Home Energy Efficiency Survey (HEES) (SCG)***

SCG has evaluated the recommendations from the process evaluation HEES conducted by EcoNorthwest. The recommendations below have been or will be integrated them into the HEES PIP, as described below.

**Recommendation 1:** Improve tracking of audit programs.

**PIP page or section:** N/A

**Response:** In Home Audits have been discontinued as they were designed in the 2006-2008 program cycle. Energy Surveys are being incorporated into the Whole House programs. In addition, the utilities are working together to develop an integrated audit tool to address several programs.

**Recommendation 2:** Offer more detailed information about other energy efficiency programs in the HEES results.

**PIP page or section:** N/A

**Response:** SoCalGas agrees that the HEES program needs to be more linked to other energy efficiency programs. Market intelligence gathered from customers based on their responses will also be provided to other programs. In addition, SoCalGas has done outreach to SCE and other POU's in its service territory to coordinate gas and electric program efforts and at the same time achieve cost effectiveness.

**Recommendation 3:** Include more advanced recommendations for the well-informed customer. Make the bill history automation project a key priority.

**PIP page or section:** N/A

**Response:** SoCalGas is continuing to improve HEES. SoCalGas is participating in the development of the integrated audit tool to provide customers with more comprehensive information.

**Recommendation 4:** Re-assess the value of the Energy 5.

**PIP page or section:** N/A

**Response:** SoCalGas is continuing to improve HEES. With the introduction to CRM, SoCalGas has a better tool to track various customer contacts, program participation and information.

**Recommendation 5:** Create a tracking database to document program process to assist further evaluation efforts.

**PIP page or section:** N/A

**Response:** With the introduction to CRM, SoCalGas has a better tool to track various customer contacts and program participation.

### ***Business Consumer Electronics Program (BCE) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the process evaluation *Statewide Business and Consumer Electronics Baseline Study*, study ID PGE0283.01,

conducted by Opinion Dynamics Corporation. The recommendations below have been or will be integrated them into the Residential Energy Efficiency Program PIP, as described below.

**Recommendation 1:** Require retailers in contracts to participate in on-going EM&V and interviews. Set up careful contact tracking databases, Retain and manage all emails or correspondence indicating any program effects. Confirm all changes in writing (and/or email) through careful ongoing communication

**PIP page or section:** These recommendations are out of scope of the PIP.

**Response:** SCE: We agree with these recommendations and implementation is underway. We have incorporated new processes into our program management requirements when dealing with retailers. We acknowledge the importance of collecting EM&V sales data, retailer contacts and interviews to build the case for attribution. We understand the importance to set up our contract tracking databases to help document all correspondences indicating program effects. We are looking into possible databases such as Salesforce.com which is the same system that other IOU's are using to have consistent process, procedures and vendors.  
PG&E: EM&V participation requirements are included as part of the PG&E contracts and is focused on improving data quality. PG&E set up a tracking database and began tracking correspondence in 2009 and will continue this in 2010-2012.

**Recommendation 2:** BCE programs continue to conduct end user channel assessments to determine the effects of upstream actions on product availability and retailer marketing efforts downstream. This data should be used as means of triangulating baseline data and a method of verifying program effects in the market, namely those related to point of purchase marketing efforts and any program-sponsored training. BCE programs continually collects residential end user data at least annually and/or prior to each change in qualify specifications or marketing efforts to effectively track the program's effects among end users. The data should be information about what is available in stores for end users to purchase.

**PIP page or section:** These recommendations are out of scope of the PIP.

**Response:** SCE agrees with this recommendation. As part of our program requirements we have designed in requirements for retailers to provide end user information, as a key indicator for validity of being a SCE customers for payment on their invoices (i.e. Sears contract). In addition, we are working with other IOUs to decide when to repeat baseline studies and other M&E issues. See PG&E reply in #1 above, plus, PG&E, on an ad hoc basis, puts point-of-purchase materials up in-store, during these visits, representatives gather information on the number of qualifying products relative to total number of products for display. PG&E is currently focused on tracking sales data rather than gather this type of information as sales data provides the relevant insights.

**Recommendation 3:** For any new products, document the baseline well.

**PIP page or section:** These recommendations are out of scope of the PIP.

**Response:** SCE agrees and has set in our processes and procedures as part of the program requirements for retailers to provide sales data one year prior to implementation and that this information is used for EM&V purposes. PG&E took the step in 2009 and will continue this in 2010-12.

**Recommendation 4:** Assess sales data quarterly to monitor the market.

**PIP page or section:**

**Response:** SCE agrees and has required monthly data from our retailers for this effort. PG&E took this step in 2009 and will continue this in 2010-2012.

**Recommendation 5:** Determine the point at which to change to qualifying model specifications (e.g. X% of sales) to maintain a consistent and standardized market share goal. To do this, data management and verification protocols need to be put in place and implemented in a timely way to ensure program implementers have the data necessary to act decisively in the swiftly changing electronics marketplace. Consider paying on market share "lift" or net to reduce risk. Program implementers should consider approaches to pay on "lift" year over year.

**PIP page or section:**

**Response:** SCE agrees with this recommendation. We are part of a statewide team with the statewide EM&V team evaluates the program effectiveness and constantly monitors the change of percentages of qualifying models. We have already implemented changes in our qualified product list by moving Energy Star 3.0+15% to Energy Star 4.0+15% and beyond. Concerning the recommendation on paying rebates for "market share" lift, we are in discussion with PG&E and others about the best way to handle the program baseline data. One possible method is to incorporate program baseline data into the NTG value. We will be collectively making a final decision on this in the months ahead. In addition, we will work on a statewide plan to phase-in and out of measures. PG&E notes paying a lift is not practical from an ex post standpoint given uncertainty of net to gross values, e.g., vendors would not agree to an uncertain future payment. Paying an ex ante value is equivalent to a lowered payment on gross.

***Comprehensive Home Performance Program (aka Whole House Performance/Prescriptive) (WH/CHPP) (SCE/SCG/SDG&E)***

*SCE has evaluated the recommendations from the process evaluation Process Evaluation of 2006 - 2008 IDEEA & InDEE Programs, CHPP Section, Volume 2* conducted by RIA. The recommendations below have been or will be integrated them into the HEES PIP, as described below.

**Recommendation 1:** To accelerate demand for HP services, an investment in public marketing of HP services and benefits will be required. These efforts could include state and local governments and utility companies

**PIP page or section:** N/A

**Response:** With the adopted WH prescriptive and performance programs, these issues are addressed.

**Recommendation 3:** Develop standard electronic report forms - a short form to itemize existing dwelling conditions and the pre - and post - test results needed for estimating post retrofit savings, and a longer form for trainees who prepare detailed client reports to provide additional useful information to the CBPCA.

**PIP page or section:** N/A

**Response:** SCE agrees with this recommendation. The program will be a resource program in the 2010 - 2012 program cycle. A standard report form will be needed in order for HP contractors to report jobs correctly and minimize contractors confusion.

SCE will take into consideration to develop a more detailed form for HP contractors who would like to provide their clients with a more detailed report.

**Recommendation 4:** The Implementer should continue to provide incentives for assessment reports and to tie contractor reporting incentives to an external leverage point, such as delaying homeowner rebates or incentives until the CBPCA has received complete remediation reports from contractors.

**PIP page or section:** N/A

**Response:** SCE agrees with this recommendation. HP contractor reporting will be tied to the home owner's incentives in the 2010 - 2012 program cycle. Failure of submitting complete reports and application will result in the delay of the homeowner's incentives.

***Community Language Efficiency Outreach (CLEO) (SCE)***

SCE has evaluated the recommendations from the process evaluation for CLEO conducted by KVD and McLain. The recommendations below have been or will be integrated them into the CLEO PIP, as described below.

**Recommendation 1:** Consider tailoring seminar content to differences in baseline knowledge of energy efficiency.

**PIP page or section:** N/A

**Response:** In the 2010-12 program cycle, SCE will perform an analysis on the current seminar content. This analysis will help SCE determine what the baseline knowledge of energy efficiency is, and how it can be custom tailored for each seminar.

**Recommendation 2:** Keep exit survey data in a useable format with an ability to connect the information with ethnicity.

**PIP page or section:** N/A

**Response:** SCE agrees exit survey data should be kept in a useable format based on ethnicity for future evaluations. To facilitate this, in the 2010-12 program cycle, SCE will work with the program implementer to create a standard exit survey seminar participants can fill out at the end of each session.

**Recommendation 3:** Develop a quality control process for creating and maintaining sign-in sheets with contact information, and the ability to determine which entries belong to the same family.

**PIP page or section:** N/A

**Response:** Our program is designed to track participants individually. We cannot track family versus family members.

**Recommendation 4:** Consider a QC process to assure presenter quality.

**PIP page or section:** N/A

**Response:** We are going to use participant exit survey as our program quality control process. However, we will work with our Energy Centers to incorporate adult learning processes.

**Recommendation 5:** Address HEES upfront, include some example success stories (“Following through on HEES recommendations saved this person...”)

**PIP page or section:** N/A

**Response:** SCE feels this is a good idea, and in the 2010-12 program cycle, SCE will work with the program implementer to develop the messaging / script that can be used to address HEES upfront, as well as any example success stories. SCE will also consider using HEES as the framework for general rules of thumb regarding energy savings.

**Recommendation 6:** Address the “why” — explain the ongoing benefits (hit savings over time; don’t just focus on rebates); address potential savings from recommended actions (following “rules of thumb” can save up to \_\_%)

**PIP page or section:** N/A

**Response:** SCE agrees the “why” should be addressed, rather than focusing on rebates alone. In the 2010-12 program cycle, SCE will discuss analyze the various “why’s” and will coordinate with the program implementer to include this messaging in the seminar presentations.

**Recommendation 7:** Put more focus on “what to do next,” sorting out next steps that are appropriate for both renters and owners and those that typically are appropriate specifically to owners. Help participants weigh alternatives based on likely payback. Consider an “action planning” worksheet that relates the “to dos” to the rebates/incentives.

**PIP page or section:** N/A

**Response:** SCE agrees more focus should be placed on “what to do next,” and in the 2010-12 program cycle, SCE will work with the program implementer to develop a “What To Do Next” / “To Do List” for seminar participants. All reasonable and cost-effective findings will be implemented.

## **Knowledge Transfer Meetings**

### ***Upstream Lighting Program (ULP) (Statewide)***

The investor-owned utilities (IOUs) have discussed and evaluated the recommendations from the Knowledge Transfer Meeting. The recommendations below have been or will be integrated into the ULP Basic and Advanced Lighting PIP, as described below.

**Recommendation 1:** Some initial High Level recommendations:

IOUs should:

- Partner with big box stores on specialty CFLs
- Conduct Targeted marketing and outreach in the Non-Res area
- Have well designed education and marketing programs to take action and to educate. Messaging on big CFL ad buys should be reviewed by ED residential program staff.
- Focus on improving the quality of the specialty bulbs that could fit 2 out of 4 sockets not now using CFLs.

**PIP page or section:** Page 58, 59, 67, 68, 61



**Response:** IOUs generally agree with all of the high-level recommendations, except for bullet item #4. We believe we should focus on converting all eligible sockets in the households or establishments rather than 2 out of 4 only. PG&E: Does not agree that messaging on big CFL ad buys should be reviewed by ED residential program staff.

**Recommendation 2:** Take measures to minimize leakage.

**PIP page or section:** Page 51

**Response:** The IOUs agree. Despite some conflicting recommendations from our process evaluation, we have opted to continue aggressive actions to minimize leakage in the program.

**Recommendation 3:** Monitor the market

**PIP page or section:** Page 51

**Response:** The IOUs agree. Despite some conflicting recommendations from our process evaluation, we have opted to continue aggressive actions to minimize leakage in the program.

**Recommendation 4:** Implement process evaluation improvements (SCE, PG&E, SDG&E)

**PIP page or section:** N/A

**Response:** IOUs agree and much of the improvements are underway.

### ***Appliance Recycling Program (ARP) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the Knowledge Transfer Meeting for ARP. The recommendations below have been or will be integrated into the ARP PIP, as described below.

**Recommendation 1:** Market Research is needed to understand the secondary appliances market.

**PIP page or section:** 99 (Section 5c-Program Design to Overcome Barriers), 106 (Section 6h-EM&V)

**Response:** IOUs agree that further market research is needed to understand the appliances across their entire lifecycle, and if existing collaboration with retailers can provide new channels and increase adoption of appliance recycling.

**Recommendation 4:** The evaluation recommends that greater emphasis be placed on quality control related to data collection.

**PIP page or section:** 98 (Section 5c-Program Design to Overcome Barriers), 103 (Section 6bv-Non-energy Activities of Program)

**Response:** PG&E identifies the value in collecting more data on recycled models and are currently reviewing additional field names for the data collection. SCE has implemented the Enerpath real-time GPS system and can easily refine the level of data collection details to support M&E needs as requested. SDG&E currently has a system in place, the SMART which allows us to capture data collection on a weekly basis.

### ***Home Energy Efficiency Rebate (HEER) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the Knowledge Transfer Meeting for HEER. The recommendations below have been or will be integrated into the HEER PIP, as described below.

**Recommendation 1:** To decrease free-ridership issues, utilities should only offer rebates to high CEE tier appliances (i.e., Tier 1 or 2), or ENERGY STAR appliances.

**PIP page or section:** Page 76

**Response:** IOUs currently rebates at high CEE tiers for appliances and will continue to increase program specifications as driven by market share data and as it aligns with customer needs.

**Recommendation 3:** Programs should be involve more partnerships with retailers and targeted ME&O plans for specific appliances.

**PIP page or section:** Page 80-85

**Response:** IOUs are currently evaluating our retailer and marketing strategy to provide accurate information for each program, and present it in a way that makes sense to the customer.

**Recommendation 4:** Greater coordination is needed around appliances for which multiple entities are offering rebates

**PIP page or section:** Page 86

**Response:** Greater coordination is needed around appliances for which multiple entities are offering rebates

**Recommendation 6:** IOUs need to improve their enforcement of eligibility, quality installation and timing requirements.

**PIP page or section:** Page 83

**Response:** SCE, PG&E and SDG&E/SCG will tighten our inspection process and program qualification verifications.

**Recommendation 7:** Pool Pump programs need broad review

**PIP page or section:** Page 79

**Response:** IOUs currently undergoing market analysis to redesign the existing pool pump program and optimize the effectiveness of an incentive in the key decision point in the value chain.

### ***Multi-Family Energy Efficiency Rebate (MFEER) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the Knowledge Transfer Meeting for MFEER. The recommendations below have been or will be integrated into the MFEER PIP, as described below.

**Recommendation 1:** Program should use fixtures that take high quality bulbs that are easily available and affordable to replace. MF program should work with advanced lighting program as needed to prioritize getting such bulbs and related to fixtures to market quickly.

**PIP page or section:** Page 140, Item I

**Response:** The IOUs does work closely with the advanced lighting program to modify our offerings. SDG&E continues to work with the Advancing Lighting Program to facilitate the process of introducing the latest lighting technology to our customers.

**Recommendation 3:** Pilot projects should explore rebating contractors at a higher level

**PIP page or section:** Page 134, Par 5

**Response:** The IOUs have already increased the contractor incentive level. In 2009, SDG&E raised the rebate levels.

**Recommendation 4:** A study or a pilot project on ways to get MF managers to take up more comprehensive upgrades is needed.

**PIP page or section:** Page 142, Par 7

**Response:** In the statewide PIP, the IOUs have already agreed to work with HEES program to jointly develop MF-HEES to identify comprehensive needs of whole apartments/building. SDG&E requires that at least one gas measure be installed with electric measures.

**Recommendation 5:** Program tracking records need improving

**PIP page or section:** Page 133, Item 5b

**Response:** The IOUs agree. We currently track multiple data fields and some of them remain on the program documentation but not in the system. We would like to respectively request tracking system data field requirements so we can make these changes. In mid 2008, SDG&E changed to the CRM system (SAP product) to accommodate a more comprehensive reporting system. Once the data requirements are established, we can try to accommodate the reporting request.

## **Market Characterization Study**

### ***Business and Consumer Electronics (BCE) (Statewide)***

SCE has evaluated the recommendations from the Market Characterization Study conducted by Research Into Action (RIA). The recommendations below have been or will be integrated into the BCE PIP, as described below.

**Recommendation 1:** Manufacturers' national and international markets require cooperation among programs to promote unified standards that apply to the broadest possible geographic area.

**PIP page or section:** Page 121

**Response:** We understand our program participants (i.e., retailers) and manufacturers are national in scope and can make sweeping stocking changes. We are currently participating and

supporting plug load appliances standard setting at national level with CEE, DOE/Energy Star, and manufacturers.

**Recommendation 2:** Decisions about product design are made at the very beginning of the development process, thus market transformation programs must focus their efforts on intervening at these early stages of product design.

**PIP page or section:** Page 121

**Response:** See reply above

**Recommendation 3:** Product development cycles vary from three months to five years, thus market transformation effects will take at least as long to be realized.

**PIP page or section:** Page 125

**Response:** We agree to affect the manufacturers and the product development cycle, the program must also adopt the philosophy of product/market road mapping. We would like to work closely with our statewide program counter-parts to develop a coordinated plan to implement this in 2010-2012.

**Recommendation 5:** Sales of some products are growing more quickly than others. Paying attention to these “ascendant products” will help programs plan ahead and increase their effectiveness.

**PIP page or section:** Page 123

**Response:** See reply above, in addition, we agree that “ascendant products” are opportunities. To that end, the program team is working with the statewide counter-parts to work on establish baseline for new measure targets included in the 2010-2012 program cycle. Many of the “ascendant products” such as satellite set-top boxes, game consoles, and printers are included in that baseline study.

**Recommendation 11:** Programs should maintain close relationships with ENERGY STAR program managers in order to stay apprised of impending changes to standards, as ENERGY STAR specifications for each product have been revised at different times and at varying intervals.

**PIP page or section:** See above reply.

**Response:** See reply above

**Recommendation 12:** Programs may want to take ENERGY STAR penetration data into account when selecting which efficiency level(s) to incent.

**PIP page or section:** Page 123, 121

**Response:** This is something we already do today. The program team monitors this data independently; in addition, the program baseline study also takes this data into consideration when assessing program measure baselines.

**Recommendation 14:** Energy efficiency is not currently a key product feature for consumer electronics products, thus programs should consider efforts to increase awareness of and demand for energy efficiency in consumer electronics products

**PIP page or section:** Page 120

**Response:** The statewide BCE program is designed as a mid-stream program to change stocking behavior of the mid-stream market actors such as retailers, as first order of program goals. In addition to this goal, SCE's BCE program has designed in marketing initiative to promote the use of Energy Star appliances and educating end-users on the importance of managing vampire loads in their households. We will work with our statewide partners to continue these activities.

**Recommendation 15:** Energy efficiency is a key product feature for business electronics products, thus programs targeting these products should adjust their marketing efforts accordingly.

**PIP page or section:** Page 121

**Response:** See reply above

**Recommendation 17:** Across all products, the most common energy efficiency messages focus on cost savings and/or are tied to a manufacturer's corporate social responsibility efforts. Programs should consider that consumers, at least in the view of manufacturers, are most responsive to messages centered on cost savings related to energy efficiency.

**PIP page or section:** Page 121

**Response:** We agree with this recommendation.

**Recommendation 18:** The limited nature of energy efficiency messaging means programs have an opportunity to work with manufacturers and distribution partners to improve efficiency messaging and product labeling to include a description of the benefits of efficiency.

**PIP page or section:** Page 123

**Response:** We agree with this recommendation.

**Recommendation 19:** Many products have high ENERGY STAR penetration rates. To capture additional savings, programs may need to incentivize an efficiency level more aggressive than ENERGY STAR and/or an ENERGY STAR tier that is not yet in effect.

**PIP page or section:** Page 117

**Response:** We agree with your thought here. This is already the current program design approach.

**Recommendation 21:** Baseline studies for product types to be included in energy efficiency programs. These should determine, at a minimum, the installed base, market share, and current sales levels of efficient versus "traditional" products.

**PIP page or section:** Page 127

**Response:** We agree with this recommendation.

**Recommendation 22:** Electronics saturation surveys to study the number and type of devices in U.S. households. Surveys should be conducted every other year, funded and organized at a national level (perhaps in coordination with the Consumer Electronics Association), and include both telephone/email surveys and in-building tallies for both residential and commercial buildings.

**PIP page or section:** Page 127

**Response:** The California IOUs currently conduct several residential appliances saturation studies per program cycle. We agree that the scope of these studies should be expanded to include plug load appliances.

**Recommendation 23:** End-use metering and load profiling studies of electronic devices. Like saturation surveys, these studies need to be conducted on a regular basis for devices used in both residential and commercial buildings.

**PIP page or section:** Page 127

**Response:** See reply above

**Recommendation 25:** Additional research on the retailer-manufacturer relationship. A deeper understanding of the influences on both parties will aid program design, particularly around the role of retailers in product development.

**PIP page or section:** Page 127

**Response:** We agree, we will explore these inter-dependences as part of the baseline study and supplemental market characterization study so the program design for the specific measure would be comprehensive.

**Recommendation 26:** Additional research on consumer decision-making. Programs will benefit from, at the least, a review of the most recent decision-making research to determine the potential effects of incentivizing purchases at the customer or retailer level. For example, will this lead to “take back,” with customers purchasing bigger devices than they would have otherwise?

**PIP page or section:** Page 127

**Response:** See reply above

## Third-Party Evaluations

### ***Comprehensive Home Performance Program (aka Whole House Performance/Prescriptive) (WH/CHPP) (SCE)***

SCE has evaluated the recommendations from the Third-Party Evaluation conducted by ODC. The recommendations below have been or will be integrated into the WHRP PIP, as described below.

**Recommendation 1:** The customer should receive an incentive instead of the contractor for reporting project specifications and that help the program collect the data it needs to track energy savings.

**PIP page or section:**

**Response:** SCE agrees with this recommendation. In 2006-2008, SCE implemented the program to build an infrastructure of qualified home performance contractors. SCE incentivized contractors in order for them to become accustomed to completing a quality report. In the 2010 – 2012, SCE will be modifying this program from a non-resource program into a resource program, which will provide customer's incentives for the installation of approved energy efficient measures in the program. The incentives customers receive will be tied to the contractor complete project reporting which will help the program collect the data that the program needs.

**Recommendation 2:** The CBPCA and SCE should devote more resources to building awareness among homeowners for home performance testing in Southern California.

**PIP page or section:** N/A

**Response:** In the 2010 – 2012 program cycle, SCE will implement the following to build awareness among homeowners for home performance:

- Develop a program website to build homeowners' awareness about the home performance program
- Develop marketing collaterals for contractors to utilize when selling a home performance job
- Cross – promote the program along with other SCE's existing energy efficiency program

**Recommendation 3:** The process for contractors reporting jobs to the program could be streamlined a bit and be made more standardized.

**PIP page or section:** N/A

**Response:** SCE agrees to improve reporting jobs to the program. In the 2010 – 2012 program cycle, SCE will utilize lessons learned and best practices from the 2006 – 2008 program cycle to streamline and standardizing contractors reporting. SCE will do this by:

- Creating a standard reporting form
- Seek for ways to streamline contractors reporting
- Include a reporting section in the training material to educate contractors on how to report complete projects. This requirement will be coordinated statewide.

**Recommendation 4:** Create templates or standardized forms for owner interviews and reports.

**PIP page or section:** N/A

**Response:** See reply above.

**Recommendation 7:** Events planned to promote referrals and networking with other contractors, for example, the Yahoo group set up by the program implementer was cited as a good example of helping the contractors stay in touch with each other and share information.

**PIP page or section:** N/A

**Response:** In the 2006 – 2006, the program had quarterly contractors meeting located at different geographical areas to provide the opportunity for contractors to network with each other. SCE will continue to the quarterly contractor networking forums.

**Recommendation 8:** Create a tool lending library for contractors and trainers for trainings and Home Performance projects.

**PIP page or section:** N/A

**Response:** In 2010-2012, the SCE's Energy Center is scaling up their tool lending library capabilities. The tool lending library will be managed by our AGTAC team and we will refer all appropriate participants to use this capability.

**Recommendation 12:** Although the testing aspect of the course was very detailed, that there was a gap in between testing and recommending measures. The course would have been more helpful if it contained more detailed guidelines on what measures to recommend with certain test results.

**PIP page or section:** N/A

**Response:** In the 2010-2012 program plan, this is already designed in.

**Recommendation 13:** Create connection to further training--BPI, Green Advantage, technical colleges, universities.

**PIP page or section:** N/A

**Response:** The program provides the opportunity for contractors who participate in the 9-day home performance training to take a BPI certification test. In the 2010 – 2012, SCE has made BPI certification available in the program design. In addition, we have workforce education training initiatives to create connections with educational institutions.

**Recommendation 14:** Create additional opportunities for Field Training and Mentoring.

**PIP page or section:** N/A

**Response:** We will engage an expert in education training and design to assess the effectiveness of the current training program. Field training and mentoring component will be included in this assessment.

## **Commercial**

### **Impact Evaluations**

#### ***Major Commercial Program (Statewide)***



The IOUs have discussed and evaluated the recommendations from the *Major Commercial Program Impact Evaluation* conducted by SBW, Inc. The recommendations below have been or will be integrated into the statewide Commercial Energy Efficiency Plan.

**Recommendation 1:** Better inspection and documentation of baseline conditions.

**PIP page or section:** page 54, section 2.8

**Response:** Pending further clarification from ED, the IOUs have been examining internal procedures, processes and organizational roles to determine opportunities to enhance both inspection and documentation opportunities regarding baseline conditions.

**Recommendation 2:** Improved measure names.

**PIP page or section:** page 54, Section 2.8

**Response:** A statewide naming consensus is in progress.

**Recommendation 3:** Improved tracking system data entry

**PIP page or section:** page 55, section 2.8

**Response:** The IOUs have undertaken various efforts to improve tracking systems including:

- Fundamental upgrades of program tracking tools and software
- Quality control enhancements to better track project status

**Recommendation 9:** Improve IOU staff capability to advance C/I efficiency technologies.

**PIP page or section:**

**Response:** The IOUs have continuous education to improve staff capabilities.

**Recommendation 11:** Provide continuity in account rep assignments

**PIP page or section:** page 74, Section 3.7

**Response:** In general, and reflecting the high degree of importance that the IOUs place on account representatives as major channels of program delivery, the IOUs strive to provide seamless, long-term relationships to all customers, including assigned customers. Despite this, turnovers, promotions and staff changes in general can work against these goals. Nonetheless, the IOUs will continue to seek out new strategies to enhance the customer experience on all fronts, including the key dimension of continuity of care.

### ***Major Commercial Program (SPC 04-05 Evaluation) (SCE)***

SCE has discussed and evaluated the recommendations from the *Major Commercial Program Impact Evaluation* conducted by SPC. The recommendations below have been or will be integrated into the statewide Commercial Energy Efficiency Plan.

**Recommendation 1:** Consider Increases in the Level of Technical Documentation Required for All Projects, especially the Largest, Most Complex Projects

**PIP page or section:**

**Response:** Accept. In progress.

**Recommendation 2:** Increase Pre- and Post-Installation Inspection Thoroughness

**PIP page or section:**

**Response:** Accept. In progress.

**Recommendation 3:** Increase Pre-Installation Measurement for Very Large Projects with Highly Uncertain Baseline Conditions

**PIP page or section:**

**Response:** Accept. In progress.

**Recommendation 6:** Improve Access to All Application Information.

**PIP page or section:**

**Response:** Accept. In progress.

**Recommendation 7:** Improve Reviewer Documentation

**PIP page or section:**

**Response:** Accept. In progress.

**Recommendation 12:** Prepare for Integration of CPUC Evaluators Early in the Program Process to Enable Pre-Installation Verification and Measurement for Sampled Projects.

**PIP page or section:**

**Response:** Accept. In progress.

**Recommendation 14:** Tracking System Improvements

**PIP page or section:**

**Response:** Accept. In progress.

***Retrocommissioning (RCx) Program (Statewide)***

The IOUs have discussed and evaluated the recommendations from the *Final Report 2006-08 Retro-Commissioning Impact Evaluation* conducted by SBW, Inc. The recommendations below have been or will be integrated into the statewide Commercial Energy Efficiency Plan.

**Recommendation 2:** Reduce RCx service providers' burden for quantifying energy savings.

**PIP page or section:**

**Response:** The IOUs are moving in this direction with the development of calculators to estimate savings for small measures. Some research has already been completed and other research is underway now.

**Recommendation 3:** Give program staff primary responsibility to collect baseline data

**PIP page or section:**

**Response:** This recommendation is reasonable, and the 2010-2012 RCx programs include updated baseline documentation requirements

**Recommendation 14:** Continue partnership programs in order to sustain high net savings for RCx projects

**PIP page or section:**

**Response:** Accepted

**Recommendation 15:** Implement project screening before the RCx study to ensure the proposed project is not already scheduled for a similar review and analysis

**PIP page or section:**

**Response:** Accepted

***Southern California Industrial and Ag Contract Group Impact Evaluation (SCE)***

SCE has discussed and evaluated the recommendations from the *Final Report 2006-08 Retro-Commissioning Impact Evaluation* conducted by SBW, Inc. The recommendations below have been or will be integrated into the appropriate PIP.

**Recommendation 4:** Improve baseline specification.

**PIP page or section:** TBD

**Response:** Accept, in progress.

**Recommendation 5:** Clarify and enforce the definition of "industry standard practice".

**PIP page or section:** TBD

**Response:** Accepted, but we need on-going discussions.

**Recommendation 7:** Incorporate greater levels of real-time measurement and pre- and post-installations measurement based verification

**PIP page or section:** TBD

**Response:** Recommendation accepted. Program procedures have been changed.

**Recommendation 8:** Require a greater level of technical documentation for the largest and most complex projects.

**PIP page or section:** TBD

**Response:** We are increasing level of documentation for largest customers. SPATS is now another level of review.

**Recommendation 9:** Require better documentation of pre-installation operating conditions

**PIP page or section:** TBD

**Response:** Accept; in process.

**Recommendation 11:** 6.4.6 Re-examine underperforming measures

**PIP page or section:** TBD

**Response:** Accept. It's an on-going activity. Offer Management is pulling data to explore measure utilization. For example, they're looking at different marketing to increase penetration. SPATS is developing systems to track utilization of diff measures.

**Recommendation 12:** It is important that the application paperwork identify what fraction of a particular end-use is retrofit, and program policy should require clear identification of the units involved in each phase.

**PIP page or section:** TBD

**Response:** Accept- incorporate that tech review clearly ID the equipment.

**Recommendation 13:** Enhance tracking systems to support measure-level tracking

**PIP page or section:** TBD

**Response:** Already done in SMART.

**Recommendation 14:** Make application-level information readily accessible to evaluators

**PIP page or section:** TBD

**Response:** Accept: In SMART, paper docs are scanned into PDF for easier access. Electronic files are stored in its documents library.

**Recommendation 17:** 6.4.13 The programs need to enhance their capability to get involved with projects at the earliest possible stage

**PIP page or section:** TBD

**Response:** In 2009, BCD incorporated an influence-tracking system (FranklinCovey) which addresses this by documentation

**Recommendation 19:** 6.4.15 The Programs Need to Provide Early Project NTG and Baseline Screening for the Largest Projects

**PIP page or section:** TBD

**Response:** Initiate discussion with ED on NTG. Accept the rec. on baseline screening...it's in progress.

**Recommendation 21:** Consider using incremental costs to benchmark and limit payments

**PIP page or section:** TBD

**Response:** In progress

**Recommendation 25:** Involve impact evaluators in large projects and a sample of projects on a real-time basis throughout the program cycle

**PIP page or section:** TBD

**Response:** Accept; in progress.

## **Process Evaluations**

### ***Business Incentives and Services (BIS) (SCE)***

SCE has evaluated the recommendations from the process evaluation of the BIS Commercial Program. The recommendations below have been or will be integrated into the Commercial Programs PIP.

**Recommendation 1:** Minimize Lost Savings Opportunities by Using Audits as a Resource for Marketing the Incentive Programs.

**PIP page or section:** (Section 7.2, page 81)

**Response:** SCE's 10-12 program design specifically uses audits to feed incentive programs and therefore has integrated this recommendation.

**Recommendation 2:** Establish a Formal and Systematic Process for Providing Support to Customers that "Stall" in the Program.

**PIP page or section:** (Section 7.2, page 82)

**Response:** SCE has implemented a review group that has addressed key aspects of program performance including conversion, and therefore has addressed this recommendation

**Recommendation 3:** Streamline and Reduce the Application Review and Processing Time

**PIP page or section:** (Section 7.2, page 82)

**Response:** SCE has implemented a review group that has addressed key aspects of program performance including project streamlining and therefore has addressed this recommendation.

**Recommendation 4:** Continue and Expand Efforts to Develop Partnerships

**PIP page or section:** (Section 7.2, page 82)

**Response:** The IOUs will work closely with CPUC evaluators and ED to further clarify and respond to this recommendation

**Recommendation 5:** Review and Document the Program Theory and Logic

**PIP page or section:** (Section 7.2, page 82)

**Response:** The IOUs have reviewed and modified our filed program theories and logic where necessary

**Recommendation 6:** Develop Key Performance Metrics

**PIP page or section:** (Section 7.2, page 83).

**Response:** The IOUs are filing performance metrics as recommended

***PGE2006 Medical Facilities Program (PG&E)***

PG&E has evaluated the recommendations from the process evaluation, *Pacific Gas & Electric Company's 2006–2008 Medical Efficiency Program*, study ID PGE0284.01, conducted by Research Into Action (RIA). The recommendations below have been or will be integrated them into the PGE2101, Commercial Energy Efficiency Program PIP, as described below.

**Recommendation 1:** Opportunities exist for more participants to undertake projects that bundle several measures together. The medical program team should work with field sales and service (S&S) staff to identify and encourage customers to undertake such projects.

**PIP page or section:** This recommendation is already incorporated in the PIP in section 4a, Program Description, p. 3; section 5c, Program Design to Overcome Barriers, p. 7; and section 6e, Integrated/coordinated Demand Side Management, p. 19.

**Response:** PG&E is structuring its sales and sales support teams to support greater opportunities for bundling multiple measures in the medical segment.

**Recommendation 2:** PG&E appears to be successfully establishing and maintaining the type of long-term relationships necessary to encourage a comprehensive approach to energy management. To ensure that Field S&S staff continue to maintain these strong relationships, the medical program team should provide Field S&S staff with further training and resources to engage customers in identifying and pursuing energy efficiency opportunities.

**PIP page or section:** This recommendation is already incorporated in the PIP in section 6e, Integrated/coordinated Demand Side Management, pp. 18–19.

**Response:** Training was provided to Account Managers in March at our S&S meetings. The training was based on the experience of sharing and presenting new technology solutions, such as LEDs in operating rooms.

**Recommendation 3:** Program and field S&S staff should continually assess the willingness and ability of medical customers to progress toward a comprehensive approach to energy management and adjust program resources accordingly.

**PIP page or section:** This recommendation is already incorporated in the PIP in section 4a, Program Description, p. 2; section 6b iv, Program-specific marketing and outreach efforts, p. 15; and section 6c, Best Practices, p. 17.

**Response:** PG&E invited Jennifer Stout from Northwest Energy Efficiency Alliance to present BetterBricks experience in offering strategic energy management to a healthcare organization. We are exploring CEI opportunities with healthcare organizations.

**Recommendation 4:** Ensure that separate field S&S staff serving facilities owned by a single organization, but located in different regions, provide the organizations with consistent advice with respect to energy management.

**PIP page or section:** This recommendation could be incorporated in the PIP in section 6b iv, Program-specific marketing and outreach efforts, p. 15.

**Response:** A Strategic Account Manager is in charge of the three largest healthcare organizations in PG&E's territory: Kaiser, Sutter, and CHW. PG&E also initiated an analysis of the smaller organizations: Adventist, Hospital Corporation of America, St. Joseph Health System, and Daughters of Charity Health System.

### ***PGE2005 High Technology Facilities Program (PG&E)***

PG&E has evaluated the recommendations from the process evaluation *PG&E's 2006-2008 High-Tech Program*, study ID PGE0277, conducted by Energy Market Innovations, Inc. The recommendations below have been or will be integrated them into the PGE2101, Commercial Energy Efficiency Program PIP, as described below.

**Recommendation 1:** Achievement toward goal attainment should be measured and performance indicators should be tracked frequently to provide staff and management with real-time feedback on progress. Progress should be monitored on an ongoing basis so the Program Manager and other PG&E senior management can celebrate success and be alerted to changes that are not producing desired outcomes within the expected timeframe. Real-time feedback mechanisms provide programs with information needed to make mid-course changes that will eventually contribute to meeting energy and demand impact goals. Ideally, PG&E should develop management reports that can be generated from a Program tracking system that include data and graphics relating to the established performance metrics, though additional data collection and reporting independent of Program tracking might need to be established.

**PIP page or section:** This recommendation could be incorporated in to the PIP in section 5a, Program Rationale and Expected Outcomes, pp. 5–6.

**Response:** A series of initiatives have been taken to provide information and dashboard at different granularity. A specific tool was put in place mid-2008 to follow progress in the segment.

**Recommendation 2:** Develop methods to systematically identify customers with high-tech facilities. This research found the target market to be too ambiguous for an effective communication and marketing strategy. One of the challenges faced by the Program is how to identify customers that have data centers and server farms (particularly the hidden facilities). Perhaps one of the most effective strategies for identifying these customers is to leverage relationships PG&E already has with its customer base through Sales & Services. The Program should also consider an intense market research effort that will characterize PG&E's customer base with respect to existing data center/server farm facilities, data center construction, adoption of virtualization software, etc., that will provide a framework for identifying customers that are likely to be eligible for this targeted program.

**PIP page or section:** This recommendation could be incorporated into PIP section 5c, Program Design to Overcome Barriers, pp. 6–8.

**Response:** This issue was discussed in the strategic effort of early 2009 and led to targeting customer facilities with a load factor greater than 60% and 70%. This outreach generated several leads for new projects serving non-typical high tech customers. New definition of the segment market based on NAICS code 1 was set in early 2009, and support has been provided to other segments about high tech measures and high tech facilities.

**Recommendation 3:** Develop strategic partnerships with the engineering and design community that serves the data center and critical facility market. Designers such as architects and engineers, as well as vendors and manufacturers, are critical sources of information for customers and can be very influential in facility retrofit design and equipment specification. There is a great opportunity to utilize this relationship to increase program awareness and participation.

**PIP page or section:** This recommendation has already been incorporated into PIP section 5c, Program Design to Overcome Barriers, p. 8.

**Response:** Several initiatives have been taken to better outreach and partners with engineering firms:

- Leadership of the energy committee at the Critical Facility Round Table organization (CFRT)
- Publication of baselines for high tech facilities (data centers, laboratories, clean rooms) now be used by all engineering firms to evaluate energy efficiency in high tech facilities
- Outreach and training of value added resellers of engineering firms on specific measures, such as air-flow management in data centers and server virtualization

**Recommendation 4:** Integrate the Program with the Integrated Audit Program. Even though the ultimate objective of providing energy audits at no cost to customers is to help customers identify and prioritize cost-effective energy efficiency improvement projects, this evaluation found that the High-Tech Program is not able to effectively leverage the Integrated Audits as a means for enrolling participants in the High-Tech Program. EMI recommends that managers of both the High-Tech and the Integrated Audit programs continue to strive toward more effective program collaboration.

**PIP page or section:** This recommendation has already been incorporated into the Commercial PIP sub-program, Nonresidential Audits Program, pp. 25–40.

**Response:** PG&E is working to coordinate the integrated audits more completely with all programs including the High Tech program.

**Recommendation 5:** Provide more frequent training to account managers/Sales & Services staff on Program opportunities. Account managers play a critical role in developing customer interest in the program and providing customer feedback to the High-Tech Project Manager during the project development. In order for the Account Manager to “sell” energy efficiency to their customers, they need to be fluent in PG&E’s efficiency program offerings. EMI recommends that PG&E develop formal program training so that Account Managers can learn about efficiency programs that are specific and unique to customers with high-tech facilities.

**PIP page or section:** This recommendation could be incorporated into PIP section 6b, Program delivery and coordination, pp. 14–16.

**Response:** Training has been organized on specific measures, such as air-flow management, server virtualization, and outside air economizers. A training about Data Center is organized every year at the Pacific Energy Center for account managers and Customers. Similar training has been organized in cooperation with Labs 21 and the Lawrence Berkeley Laboratories for Biotech customers and their Account Managers.

**Recommendation 6:** Clearly define roles and responsibilities of High-Tech staff and other departments. According to the process maps, many different people and departments are involved in the High-Tech program, including High-Tech Program staff, account managers



(Sales & Services), technical reviewers, and many others who are involved in energy analysis, application review, and general marketing. Clearly defining roles and responsibilities of these departments in the project development process will help PG&E and the Program identify overlaps, avoid duplication of efforts, and streamline coordination.

**PIP page or section:** This recommendation could be incorporated into PIP section 6b, Program delivery and coordination, pp. 14–16.

**Response:** PG&E is further defining roles and responsibilities in 2010, an effort that will address these recommendations.

**Recommendation 7:** Establish program goals and performance indicators associated with program outreach and marketing, and define how progress toward goals will be measured. Performance indicators should be identified as a result of creating an updated program theory and logic model. Goals and performance indicators should be aligned with roles and responsibilities of the various staff and departments involved in program delivery, but should also all contribute to the overall program goals of producing energy savings and peak demand reduction. Goals and performance indicators should be transparent and well documented.

**PIP page or section:** This recommendation could be incorporated in to the PIP in section 5a, Program Rationale and Expected Outcomes, pp. 5–6.

**Response:** PG&E is addressing this issue in 2010 by developing statewide Program Performance indicators and by redefining the roles and responsibilities of staff delivering integrated demand side management products and services.

**Recommendation 8:** Continue to develop a centralized repository for program references and key documentation. A program resource library will facilitate the transfer of critical information among PG&E staff, reducing unnecessary delays in project development. This resource should include all program collateral and training materials developed to educate PG&E staff and contractors about High-Tech program offerings and incentives. All staff that require such information should have access to this repository.

**PIP page or section:** This recommendation could be incorporated into PIP section 6c, Best Practices, pp. 16–17.

**Response:** A centralized information system was developed in 2008-2009 using a SharePoint environment to share critical information with all PG&E staff. Baselines for high tech facilities (Data Centers, Laboratories, Clean Rooms) have been published on the PG&E website. Measure binders have been created to provide in one place all the information needed to promote a specific measure, such as air-flow management and server virtualization, to a customer.

### ***Retro commissioning (RCx) Program (Statewide)***

The investor-owned utilities (IOUs) have discussed and evaluated the recommendations from the process evaluation, *2006-2008 RCx Process Evaluation* conducted by RIA. The recommendations below have been or will be integrated them into the statewide Commercial Energy Efficiency Plan.

**Recommendation 1:** Standardize service providers' energy savings calculation methodologies and require providers to attend a workshop on preferred savings estimate methodologies. Set uniform and consistent provider expectations and provide a forum for discussion and the answering of questions.

**PIP page or section:** TBD

**Response:** This recommendation is reasonable, and in response to the findings from Process Evaluation that are also relevant to this recommendation, the M&V requirements and Calculations procedure for the RCx Program have been updated to increase the level of rigor for the data collection process. To reduce burden on the Service Providers, the Program has also introduced a standardized pre-calculation strategy for low-impact, commonly-identified measures so that analysis time can be significantly reduced. Details about the pre-calculation approach can be found in a separate RCx Pre-Calculated Analysis submitted to the CPUC.

**Recommendation 2:** To assure adequacy and availability of project documentation, the data for every RCx project should include the following:

- Facility name, address, and SCE's project identification number
- Relevant energy-use history
- Description of the facility, (including photographs and drawings of exterior exposures and facility layout), its major activities, operating hours, general description of all major electric end-use systems and components in the facility, and sizes of conditioned and non-conditioned spaces
- Design parameters of all HVAC equipment, even if the recommended RCx measures include only a few of the system's components; include photographs of major equipment and equipment nameplates
- Piping diagrams and baseline empirical data (kW, flow, temperatures, etc.) for equipment affected by the recommended measures
- Workbooks, including an introductory spreadsheet that describes the objectives, the general layout of each of its worksheets, the major equations used, and the location of the baseline and alternative annual electric consumption data

**PIP page or section:** TBD

**Response:** See response to Recommendation 1 above.

**Recommendation 3:** To assure appropriate, consistent analysis of building systems and equipment, service providers should also observe the following procedures:

- For the "common measures" listed in the program guidelines, use the measures' corresponding deemed energy savings
- When modeling physical systems, specify the kWh per year for the baseline condition before modeling an alternative RCx measure
- Analyze at the whole-system level, not merely on a component-by-component basis

**PIP page or section:** TBD

**Response:** See response to Recommendation 1 above.

**Recommendation 4:** To correlate the level of service provider work with project impact, adopt a three-tiered protocol for investigation rigor, based on site or project size as follows:

- Sites with anticipated energy savings of 200,000 kWh or less: For measures other than "common measures," use program work papers, engineering references, manufacturing catalog data, and on-site survey data to estimate energy savings
- Sites with anticipated energy savings between 200,000 kWh and 800,000 kWh: Provide metered data for pre- and post-conditions for the three measures with the greatest energy savings; All pre- and post-conditions must be supported by full documentation, including calculations, capture-picture of trended data, etc.

• Sites with anticipated energy savings of 800,000 or more: Provide metered data for pre- and post-conditions for the three measures with the greatest energy savings, and for every other measure with a minimum of 100,000 kWh energy savings; All pre- and post-conditions must be supported by full documentation, including calculations, capture-picture of trended data, etc.

**PIP page or section:** TBD

**Response:** See response to Recommendation 1 above.

**Recommendation 6:** To facilitate a more efficient building investigation process, and to avoid fruitless service provider work and disappointed customers, apply more rigorous building-screening and service provider selection standards.

**PIP page or section:** TBD

**Response:** This recommendation is reasonable and the screening process has been strengthened by adding a “scoping” process where the service providers can spend a limited number of days onsite to determine fit with the RCx Program.

**Recommendation 7:** To minimize owners’ perception of risk from program participation, make a greater effort to communicate the purpose and intent of the OPA language to building owners during the owner screening process and to obtain their tentative acceptance of those requirements at that time.

**PIP page or section:** TBD

**Response:** Program documents have been revised to include some of the recommendations made in the process evaluation. To the extent possible, the contracts have been clarified such that the owners do not perceive any more risk than actual.

**Recommendation 8:** To reduce owners’ perception of risk further, consider deleting the Payment Disqualification clause from the OPA.

**PIP page or section:** TBD

**Response:** Program documents have been revised to include some of the recommendations made in the process evaluation. To the extent possible, the contracts have been clarified such that the owners do not perceive any more risk than actual.

**Recommendation 9:** To enhance program-marketing efforts, use the San Diego Gas & Electric (SDG&E) OPA as a model to include a provision in the SCE OPA granting permission to the utility to use limited customer information for publicity purposes.

**PIP page or section:** TBD

**Response:** Program documents have been revised to include some of the recommendations made in the process evaluation. To the extent possible, the contracts have been clarified such that the owners do not perceive any more risk than actual.

**Recommendation 10:** To improve the program’s quality control process, redesign quality control as a two-level process. The first level of review is that done by program or implementation staff and should encompass the first three to five investigations done by each provider. With consistently satisfactory results for a given provider, further review of that provider’s work can occur on a random-sampling basis.

**PIP page or section:** TBD

**Response:** This recommendation is reasonable; the RCx Program is planning to have a two-level process. Every project will be reviewed at the first level. At the second level, projects will be randomly sampled for further review with emphasis on large impact projects and early projects entered into the program.

**Recommendation 11:** The second level of review is that done by a third-party contractor to validate the program reviews done by program or implementation staff. Three to five early program projects should be subjected to a baseline accuracy validation evaluation, with a further 10 early projects receiving a high-level documentation review.

**PIP page or section:** TBD

**Response:** See response to Recommendation 10.

## **Agriculture**

### **Impact Evaluations**

#### ***Agriculture and Food Processing Program (PG&E)***

The IOUs have discussed and evaluated the recommendations from the impact evaluation, *Evaluation Report: PG&E Agricultural and Food Processing Program; Greenhouse Heat Curtain and Infrared Film Measures*, study ID CPU0024.01, conducted by KEMA. The recommendations below have been or will be integrated them into the PGE2103, Agricultural Energy Efficiency Program PIP, as described below.

**Recommendation 3:** Improve documentation and supporting data for base case equipment.

**PIP page or section:**

**Response:** The IOUs will improve documentation for base case equipment by developing and publishing baselines for a strategic number of cases. This process will involve external experts as appropriate. The IOUs will also request baselines from ED.

**Recommendation 13:** Use climate zone rather than utility service territory to calculate deemed savings.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** An appropriate level of climate specificity is defined in PG&E workpapers.

**Recommendation 17:** Review third-party review protocols to minimize conflicts of interest.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** The IOUs will tighten existing policies to address this issue.

## Process Evaluations

### ***Agriculture and Food Processing Program (PG&E)***

PG&E has evaluated the recommendations from the process evaluation, *PG&E's Agricultural and Food Processing Program*, study ID PGE0276.01, conducted by The Cadmus Group. The recommendations below have been or will be integrated them into the PGE2103, Agriculture Program PIP, as described below.

**Recommendation 1:** The Agricultural and Food Processing (AFP) Program should explore developing and implementing a formal program to engage trade allies in the promotion of the AFP Program.

**PIP page or section:** This recommendation is incorporated in section 5c, Program Design to Overcome Barriers, p. 11

**Response:** The development of trade ally relationships is a key part of PG&E's agricultural program. PG&E already has a program for interacting with trade allies.

**Recommendation 2:** To further increase market penetration, the AFP Program could consider the following actions: expand workshop offerings; continue to leverage person-to-person contact to involve participants; pursue a more detailed market characterization to determine which target markets have more potential; and create additional marketing materials, such as more specific and targeted case studies, to help Sales and Service Account Representatives (S&S) and Project Managers promote the program.

**PIP page or section:** These recommendations are incorporated in section 5c, Program Design to Overcome Barriers, p. 10-12

**Response:** Person-to-person contact will continue to be leveraged. PG&E is implementing a comprehensive marketing strategy that leverages best practices/new knowledge of the best marketing tools to use in person-to-person interactions and the best marketing tools when person-to-person meetings are not possible. We will consider all marketing tools and tactics within the framework of this comprehensive strategy, current budget, and findings from a market characterization study being conducted by the IOUs.

**Recommendation 4:** Cadmus recommends that, either in the first instance of working together or at the beginning of a project, the S&S representative and project manager should have a brief conversation establishing communication expectations between themselves and between them and the customer. These communication preferences can then be recorded as part of the project file or incorporated into some existing documentation. This record would also provide continuity in the case of staff turnover or absence.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** PG&E is currently working on improving communications between S&S reps and program staff and is also working to standardize roles and responsibilities.

# Industrial

## Impact Evaluations

### ***PG&E Industrial Program (Statewide)***

The IOUs have evaluated the recommendations from the impact evaluation, *2006-2008 Evaluation Report for PG&E Fabrication, Process and Manufacturing Contract Group*, study ID CPU0017.01, conducted by Itron. The recommendations below have been or will be integrated them into the, Industrial Energy Efficiency Program PIP, as described below.

**Recommendation 2:** Include all fuel impacts for fuel switching projects.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** The IOUs accept in principle and propose discussions with ED to revisit the three-pronged test to ensure that it is the best tool, given the state's goals for energy efficiency.

**Recommendation 3:** Improve baseline specification, baseline on alternative new equipment rather than in situ.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** The IOUs will improve documentation for baselines by developing and publishing baselines for a strategic number of cases. This process will involve external experts as appropriate. The IOUs will request baselines from ED as well. The IOUs acknowledge that the appropriate baseline, whether for new or in situ, depends upon the individual case and the options available to, and being considered by, the customer. The IOUs plan to work with ED to explore these scenarios to develop deeper understanding of the appropriate baseline specification.

**Recommendation 4:** Clarify and enforce the definition of "industry standard practice."

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** The IOUs will improve documentation for baselines by developing and publishing baselines for a strategic number of cases. This process will involve external experts as appropriate. The IOUs will request baselines from ED as well. The IOUs are aware that a standard practice is very difficult to define for some industries and will request guidance from ED for such cases.

**Recommendation 5:** Be more conservative in estimating savings.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** The IOUs estimate savings based on the best information available.

**Recommendation 7:** Use the three-prong test if fuel switching is employed.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** The IOUs agree and will use this test.

**Recommendation 8:** Further increase expertise of industrial EE team.

**PIP page or section:** This recommendation could be included in 5c, Program Design to Overcome Barriers, p. 6

**Response:** The IOUs hold regular training sessions and employ explicit hiring practices to meet this goal.

**Recommendation 9:** Work with customers as early as possible to maximize chance of program influence.

**PIP page or section:** This recommendation could be included in 5c, Program Design to Overcome Barriers, p. 6

**Response:** The IOUs will better document this standard practice.

**Recommendation 10:** Provide continuity in account representative assignments.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** PG&E has refined roles and responsibilities to this end and will improve record keeping to manage turnover.

**Recommendation 11:** Conduct early project net-to-gross and baseline screening.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** The IOUs accept this recommendation and look forward to benefitting from ED's offer to participate in training of IOU staff on free ridership screening, training that could also involve EM&V consultants. The IOUs and ED are refining baseline definitions.

**Recommendation 12:** Increase enforcement of program eligibility and policy rules.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** The IOUs are addressing this by increasing enforcement.

**Recommendation 13:** Review measures and eliminate those that are standard practice.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** The IOUs do this regularly and will seek guidance regarding baseline issues that could affect this.

**Recommendation 15:** Improve program staff training regarding baseline specification, rules enforcement, reasonableness of claims, etc.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** IOU training efforts are addressing this recommendation.

**Recommendation 22:** Write evaluation requirements clearly into contracts.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** The IOUs require this already and we will work with customers and sales and service to improve cooperation with evaluators.

## **New Construction**

### **Impact Evaluations**

#### ***California Advanced Homes Program (CAHP) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the impact evaluation *Residential New Construction (RNC) Programs Impact Evaluation – Volume I. California Investor-Owned Utilities’ Residential New Construction Program Evaluation for Program Years 2006-2008*, Study ID: CPU0030.01 February 8 2008 conducted by KEMA, Inc et al. The recommendations below have been or will be integrated into the California Advanced Homes Program PIP, as described below.

**Recommendation 1:** Analyze incentive levels for above-code design where baseline is above code. Assess methodology used to determine "50% incremental measure cost" incentive levels

**PIP page or section:** SW Section 4.b; pg. 6 of SDG&E SW New Construction PIP

**Response:** IOUs have already conducted analysis and made appropriate adjustments in incentive levels in 2010-2012 PIP. Supporting analysis has been provided to ED staff.

**Recommendation 3:** Leverage ENERGY STAR brand more

**PIP page or section:** CAHP Section 4.b; pg. 64 of SDG&E SW New Construction PIP

**Response:** While IOUs agree ENERGY STAR brand is valuable and recognized in the market, the direction being taken by ES for RNC is increasingly incompatible with CPUC and IOU goals. However, CAHP supports Energy Star by offering an additional kicker (10%).

**Recommendation 4:** Ensure that HERS raters collect and review compliance documents, and that minimum participation requirements are met, prior to issuing incentives

**PIP page or section:** SW Section 6.b.vii; pg. 18 of SDG&E SW New Construction PIP

**Response:** This is a program operational detail; program policies already require this documentation. Implementers will institute additional procedural controls to ensure better compliance. The IOUs will integrate the compliance documentation recommendation into 2010-12 PIP; we will also be developing improved QA/QC procedures in coordination with statewide/national RNC stakeholders.

**Recommendation 8c:** Consider increasing the minimum level beyond 15% above code.

**PIP page or section:** CAHP Section 4.b; pg. 56 of SDG&E SW New Construction PIP

**Response:** The IOUs have modified their incentive structure in MF to encourage higher-performance levels. The graduated incentive no longer discourages projects from exceeding the 15% threshold. However, as an entry point, 15% is the right level.

#### ***Savings by Design (SBD) (Statewide)***



The IOUs have discussed and evaluated the recommendations from the impact evaluation *Non-Residential New Construction (NRNC) Programs Impact Evaluation California Investor-Owned Utilities' Non-Residential New Construction Program Evaluation for Program Years 2006-2008*, Study ID: CPU0030.03, February 8, 2010, conducted by KEMA, Inc. et al. The recommendations below have been or will be integrated into the Savings by Design PIP, as described below.

**Recommendation 4:** Target more end uses toward ZNE goals by 2030

**PIP page or section:** TBD

**Response:** The program's aim is to influence projects earlier to incorporate the full range of end-uses. Lighting is the easiest to modify, lowest cost, and among the last to be finalized.

**Recommendation 5:** Incentivize more innovative approaches to whole building design, leading toward market transformation

**PIP page or section:** TBD

**Response:** The program will continue to offer whole building incentives, technical assistance and classes and training to transform the design community.

**Recommendation 6:** Spotlight successful firms to larger audience to encourage broader audience in pushing the envelope for investments and buildings

**PIP page or section:** TBD

**Response:** The program already engages in this activity and continues to develop and expand in this area as resources permit.

**Recommendation 7:** Move toward a consistent modeling platform and clear documentation of inputs so that evaluators could use design teams' models rather than creating new models for ex post analysis

**PIP page or section:** SBD Section 6.b.vii; pg. 36 of SDG&E SW New Construction PIP

**Response:** The IOU program managers will work with evaluators to develop workable procedures to facilitate this for this program cycle

**Recommendation 8:** Statewide program group shall undertake a series of "Path to Zero" workshops for commercial buildings

**PIP page or section:** SBD Section 6.d; pg. 39 of SDG&E SW New Construction PIP

**Response:** Work on this is underway.

**Recommendation 9:** Programs shall benchmark all participant buildings in current program cycle and report results

**PIP page or section:** SBD Section 6.d; pg. 40 of SDG&E SW New Construction PIP

**Response:** The IOU program managers are working with customers to make this happen.

**Recommendation 10:** IOUs should submit annual benchmarking reports on new construction program participants, to demonstrate progress in benchmarking

**PIP page or section:** SBD Section 6.d; pg. 40 of SDG&E SW New Construction PIP

**Response:** This will be done as benchmarking data becomes available and the privacy issues are addressed.

## **Process Evaluations**

### ***California Advanced Homes Program (CAHP) (Statewide)***

The IOUs have evaluated the recommendations from the process evaluation *SCE California New Homes 2006-2008 Program (CANHP) Process Evaluation Report. Final Report*, CALMAC Study ID: SCE0263.01, April 16, 2009 conducted by The Cadmus Group, Inc. The recommendations below have been or will be integrated them into the Residential New Construction PIP, as described below.

**Recommendation 3:** Plan to provide a substantial amount of training on the new program structure and requirements

**PIP page or section:** CAHP Section 6.a.iv; pg. 71 of SDG&E SW New Construction PIP

**Response:** The IOUs are adding training for builders and third-party consultants in new program design.

**Recommendation 4:** Marketing materials should be vetted and targeted

**PIP page or section:** CAHP Section 6.a.iv; pg. 71 of SDG&E SW New Construction PIP

**Response:** The IOUs are working with internal Customer Experience Management to improve marketing materials. The IOUs are also completing work on common set of standards for statewide look and feel.

**Recommendation 5:** Institute an ongoing assessment process

**PIP page or section:** CAHP Section 6.h; pg. 82 of SDG&E SW New Construction PIP

**Response:** The IOUs are working with EM&V on shorter, more regular process feedback.

**Recommendation 6:** Maintain design assistance for multi-family builders and application assistance for all builders

**PIP page or section:** CAHP Section 4.c.a; pg. 66 of SDG&E SW New Construction PIP

**Response:** Design and application assistance is a proposed element for all project types, including multifamily.

### ***Savings by Design (SBD) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the process evaluation *Savings By Design Market Assessment Study and Process Evaluation: Final Report, Project 0701e Savings By Design Process Study*, May 19, 2009, conducted by Heschong Mahone

Group, Inc. The recommendations below have been or will be integrated them into the Non-Residential New Construction PIP, as described below.

**Recommendation 6.1.2: Increase Marketing Efforts**

**PIP page or section:** SW Section 6.c; pg. 18 of SDG&E SW New Construction PIP

**Response:** The IOUs will increase targeted marketing to building trade organizations

**Recommendation 6.1.3: Take Advantage of Increased Sustainability Awareness**

**PIP page or section:** SW Section 6.c, SBD Section 6.c; pg. 18, pg 37 of SDG&E SW New Construction PIP

**Response:** The IOUs will train field staff in LEED, and target presentations to LEED criteria.

**Recommendation 6.1.4: Re-assess Systems Analysis Program Offerings**

**PIP page or section:** SW Section 6.c, SBD Section 6.c; pg. 18, pg 37 of SDG&E SW New Construction PIP

**Response:** The IOUs will push process load to Calculated, align incentive rates, and continue Account Executive training.

**Recommendation 6.1.5: Review Marketing Materials**

**PIP page or section:** SW Section 6.c; pg. 18 of SDG&E SW New Construction PIP

**Response:** There is an ongoing redesign of program look and feel.

## **HVAC**

### **Impact Evaluations**

***HVAC HIM and Specialized Commercial (Statewide)***

This IOUs have discussed and evaluated the recommendations from the impact evaluation *Final Report: Evaluation Measurement and Verification of the California Public Utilities Commission HVAC High Impact Measures and Specialized Commercial Contract Group Programs*, dated February 10, 2010 conducted by KEMA, The Cadmus Group, Inc. and Summit Blue Consulting, LLC. The recommendations below have been or will be integrated into the 2010-2012 Residential and Commercial HVAC Statewide Program PIP and/or adopted into standard program practice, as described below.

**Recommendation RCA-2:** Establish an independent service tool list and protocol used for residential and C&I RCA verification testing and standard tables and data quality procedures to validate program-collected and evaluator-collected data.

**PIP page or section:** This recommendation has been incorporated into the PIP Residential and Commercial Quality Maintenance Subprogram, section 6c, Best Practices, p. 93.

**Response:** The IOUs will adopt this recommendation by working with the HVAC industry draft quality installation/maintenance standards to be implemented in statewide IOU programs.

**Recommendation RCA-6:** The programs should have strong links of rebates and savings data to program units and contractor measurement data. Recommendations include a statewide unit identification standard and sticker, standard program measurement data table definitions, and development of common data definitions for key parameters. Program implementers need to notify and inform customers when they sign up to participate in programs. Implementers also need to attempt to get participants to agree to terms and conditions that allow measurement and verification work upon request.

**PIP page or section:** This recommendation has been incorporated into the PIP Residential and Commercial Quality Maintenance Subprogram, section 6h, EM&V, p. 94-96.

**Response:** The IOUs will adopt this recommendation by working with the HVAC industry to draft statewide standards for data collection. IOUs will develop a customer participation acknowledgment form.

**Recommendation RCA-7:** Measurements of pre-conditions including factory charge, charge adjustments, power draw, and airflow should be recorded along with the diagnostic parameters.

**PIP page or section:** This recommendation has been incorporated into the PIP Residential and Commercial Quality Maintenance Subprogram, section 6c, Best Practices, p. 93.

**Response:** The IOUs will adopt this recommendation by working with the HVAC industry draft quality installation/maintenance standards to be implemented in statewide IOU programs.

## **Process Evaluations**

### ***CPACS (SCE)***

SCE has evaluated the recommendations from the process evaluation CPACS 2007-2008, dated March 2009 conducted by EMI. The recommendations below have been or will be integrated into the SCE-SW-007 Residential and Commercial HVAC Statewide Program PIP and/or adopted into standard program practice, as described below.

**Recommendation 1:** Develop an issue management and resolution process.

**PIP page or section:** NA

**Response:** SCE adopted this recommendation in 2008 by requiring that the Program Management Consultant develop a Program Management Plan (PMP). This PMP documented all program operations including an issue management process. The PMP has now become standard practice for all third-party programs. All third-party aspects of the 2010-2012 Residential and Commercial HVAC Program require the PMP. All SCE managed aspects of the program describe the issue management process through a program policy and procedures manual.

**Recommendation 2:** Develop a fall production strategy.

**PIP page or section:** NA

**Response:** SCE adopted this recommendation in late 2007 by requiring that the Program Management Consultant provide annual forecast of results that was updated quarterly. This forecast was used to inform SCE's internal forecasts that are used by management to track progress towards goals.

**Recommendation 4:** Develop a defensible production activities forecast.

**PIP page or section:** NA

**Response:** SCE adopted this recommendation in late 2007 by requiring that the Program Management Consultant provide annual forecast of results that was updated quarterly. Inputs to this forecast were based on sales management strategies that were developed during periodic meetings with contractors.

**Recommendation 5:** Clarify roles and responsibilities.

**PIP page or section:** NA

**Response:** SCE adopted this recommendation for the 2010-2012 program by better defining roles and responsibilities for each of the consultants involved with supporting the program. These roles are described in the Purchase Orders issued to the consultants.

**Recommendation 6:** The Program can benefit from a solid understanding of market players and their barriers to participation, in addition to understanding HVAC technology and other market factors.

**PIP page or section:** 571

**Response:** The QM Development PIP identifies the need for market research and behavioral studies in order to gain a better understanding of market dynamics. SCE is currently engaged in this activity and regularly provides project status to the other IOUs.

**Recommendation 7:** The utility must engage the California Public Utility Commission, key stakeholders, and trade allies to make investments and take risks.

**PIP page or section:** 565

**Response:** The recently formed Western HVAC Performance Alliance was established to engage industry stakeholders and address this recommendation.

**Recommendation 8:** The utility and its partners must make quick, informed decisions based on market information. Players must understand when market conditions require a change in strategy and /or tactics.

**PIP page or section:** 650

**Response:** SCE has implemented a strategic program development process to ascertain the viability of a 2010-2012 QM program. This activity is currently under way.

**Recommendation 10:** SCE should consider the programmatic risk of not fully validating third-party E3 calculations, understanding the savings uncertainties, and incorporating those uncertainties into program goals. SCE should take appropriate actions to ensure the accuracy of program results prior to program filing with the CPUC and before setting program performance goals.

**PIP page or section:** NA

**Response:** In 2008, SCE established an EE engineering group that reviews and validates all third party E3 inputs.

**Recommendation 12:** SCE should work with the other IOUs, CPUC, M&V providers and others on a study or studies to quantify the inherent uncertainties of HVAC savings measure field verification during and after installation. These studies should lead to the development of processes or protocols that support improving the reliability of VSP field verification and ensure that measures are installed appropriately via post-installation review/inspection.

**PIP page or section:** NA

**Response:** The IOUs have recently contracted with an outside consultant to survey the current industry information regarding RCA as a first step in this process. Additional study and/or research work will be identified through this project. SCE is conducting additional research into the viability of a QM program as a result of the savings uncertainty from RCA highlighted by the HIM and other EM&V studies conducted during 2006-2009.

**Recommendation 18:** Make significant management investments in these “back office” issues to fully characterize them and develop plans to resolve them. Create a new strategic management organization as a nexus for addressing a variety of these issues.

**PIP page or section:** NA

**Response:** SCE’s Energy Efficiency Business Portfolio group reorganized in 2009 and created a separate “back office” group responsible for supporting program management activities.

***PGE2000 Mass Markets Program – HVAC (PG&E)***

PG&E has evaluated the recommendations from the process evaluation, *2006–2008 PG&E Mass Markets, Program Portfolio and CFL, Swimming Pool Market Characterizations*, study ID PGE0282.01, conducted by KEMA. The recommendations below have been or will be integrated them into the PGE2100, Residential Energy Efficiency Program PIP, as described below.

**Recommendation 1:** Increase efforts to educate HVAC contractors and consumers about what QI practices are and why they are valuable. Since those who have taken the VSP training courses are finding value from them, develop case studies and testimonials from these participating HVAC contractors that can be advertised in relevant trade publications along with links to the program website.

**PIP page or section:** Already incorporated into WE&T Sub-program, Section 4, Program Description, p. 99.

**Response:** PG&E agrees and has begun implementing some steps already. VSPs are hosting kick off meetings to inform contractors about the QI and QM program, its value, and program requirements, among other associated information. PG&E has posted several fact sheets on its website to educate customers and contractors about the benefits of measures like DTS and RCA. Furthermore, the Energy Training Center is providing several free classes in various locations: Overview of ACCA QI Standards, ACCA Manual J-Equipment Sizing and Selection, ACCA Manual D- Duct Design, Advanced ACCA Manual D, ACCA Manual N, Advanced ACCA Manual N, New Title 24 2008 NRES HVAC Requirements, and Title 24 HVAC System Change-Outs: Duct Testing Requirements for Residential and Small Business. We are evaluating how to further implement recommendations regarding advertising of case studies and testimonials.

**Recommendation 2:** Assess the clarity of message regarding what QI services include and determine how to differentiate QI from regular practices in short, succinct phrases. To increase

knowledge of this difference, create a postcard size synthesis of these phrases and use in a targeted postcard mailing to HVAC contractors. To increase knowledge of this difference in the public, use the same phrases on the PG&E website and in any other marketing regarding this service.

**PIP page or section:** Already incorporated into WE&T Sub-program, Section 4, Program Description, p. 99.

**Response:** PG&E has begun executing the first steps and is planning how to best execute the entire recommendation. The concept of QI and QM was introduced just this year, and we currently do not have a comprehensive QI program. At the current stage of its planned ramp-up and continuous improvement, our program is made up of RCA and DTS. We have been working for many months now with the other statewide IOUs and the Western HVAC Performance Alliance to develop a definition, a plan/roadmap, and a message regarding what QI services include. Once this working definition of QI and the plan is fully vetted, we will push marketing, update fact sheets, and develop new marketing collateral.

**Recommendation 3:** Make the VSP training sessions more convenient: Determine if the program can provide free QI training sessions in multiple locations within PG&E service territory. If so, include information about the free training on the targeted postcard mailing and other marketing.

**PIP page or section:** Already incorporated into WE&T Sub-program, Section 4, Program Description, p. 99.

**Response:** PG&E agrees, with limitations based on cost-effectiveness, and has begun implementing parts of the recommendation. VSPs held several contractor kick off meetings early in the program year. Based on the number of contractors that showed an interest in participating in the program, training sessions are scheduled. However, holding training sessions in a wide array of locations is not cost-effective. If utilities received more funds for the QI and QM program, based on improved cost-effectiveness or other reasons, then more recruiting, outreach, and training would be provided.

## Codes and Standards (C&S)

### Impact Evaluations (Statewide)

The IOUs have discussed and evaluated the recommendations from the *Codes & Standards (C&S) Programs Impact Evaluation California Investor Owned Utilities' Codes and Standards Program Evaluation for Program Years 2006-2008* conducted by the Cadmus Group. The recommendations below have been or will be integrated into the Codes and Standards (C&S) Energy Efficiency Plan.

**Recommendation 1:** Continue to identify and target both appliance and building standards with large potential energy savings.

**PIP page or section:** page 708-711, Figure 2

**Response:** The IOUs are conducting the following activities:

- Working actively on multiple building standard code enhancement proposals for the CEC 2011 Title 24 update and reach codes including over 15 nonresidential, 15 residential and 20 cross-cutting topics.

- Working actively on several California T-20 and federal appliance standards, including over 10 different DOE appliance standard opportunities.
- Looking for code change opportunities both within and outside of the IOU programs and portfolios, thereby ensuring that measures with the greatest energy savings are captured.

**Recommendation 2:** Continue coordination of Program among the utilities to leverage resources and expertise

**PIP page or section:** page 738, Section 8b

**Response:** The IOUs are jointly funding and will coordinate the 2011 T-24 update code enhancement activity. The IOUs will also coordinate with the CEC. Coordination activities include:

- Weekly calls among the IOUs, and their contractors
- Weekly calls on Compliance Enhancement subprogram
- Bi-weekly calls of the HVAC performance alliance
- Bi-weekly calls on US-DOE appliance standards
- Bi-weekly calls with CEC regarding 2011 Title 24 until CEC adoption
- Quarterly statewide meetings

**Recommendation 3:** Articulate, communicate, and implement a comprehensive strategy linking DSM programs and activities to the C&S Program and long-term goals for standard adoption

**PIP page or section:** page 739, Section 8b

**Response:** The IOUs will develop a comprehensive energy efficiency innovation cycle linking codes and standards development to education and training activity, emerging technology (ET/R&D) programs and incentive (DSM) programs. The IOUs will work to improve the coordination and linkage of codes and standards across all the programs in the EE portfolio. The IOUs will transition from incentive programs to codes more thoughtfully and proactively. The IOUs will work toward a “push-pull” strategy that not only creates a transition between current programs and codes, but leverage the reach code to prepare the market for future code updates.

As part of the code enhancement research and proposal study process, the study authors will use preceding utility program data to identify market trends, and develop methods for documenting and analyzing utility program activities outside the C&S program. Information from incentive (DSM) and emerging technology (ET) programs make it easier to create a code change proposal study.

**Recommendation 4:** Fully integrate a process of increasing codes and standards compliance and enforcement into the overall C&S Program approach.

**PIP page or section:** pages 713-715, Figure 2, Strategy 2-1

**Response:** The IOUs have added the Compliance Enhancement subprogram that provides an integrated process for increasing compliance and enforcement. Specific implementation activities for Compliance Enhancement include:



- Compliance Enhancement Measure-Specific Title 24 and Title 20 Activities
- Coordinate completion of baseline studies with the CPUC
- Develop measure-specific support strategies
- Develop training materials
- Conduct training courses
- Holistic Compliance Enhancement Activities
- Complete scoping studies
- Develop training guides and outreach materials

**Recommendation 5:** Encourage the California Energy Commission (CEC) to increase attention to areas such as appliance and building standard compliance to guarantee that anticipated savings are achieved.

**PIP page or section:** pages 713-715, Figure 2, Strategy 2-1

**Response:** IOUs will work actively on compliance enhancement efforts to increase code compliance. Due to budget restrictions and staff workloads, the CEC has limited resources to work with local jurisdictions and industry to improve compliance. Since the CEC is ultimately responsible for code compliance, the IOUs are working closely with the CEC staff to maximize and prioritize education and training opportunities.

Specifically the IOUs will address the need for improved compliance through the following activities:

- Collaborate with the CEC on task forces, respond to CEC requests, and work jointly with the CEC to provide training courses for building department personnel and energy consultants.
- Provide the CEC with a copy of the IOU Title 24 curriculum and seek CEC feedback on initial course designs. IOUs will review and comment on the new CEC on-line training modules.
- Actively include references to CEC training opportunities as well as new compliance tools, such as checklists for plans examiners and building inspectors, in IOU code training courses.
- Participate in the HVAC compliance improvement task force along with the CEC, CALBO, CSLB, IHACI, and others. As part of that effort, IOUs will encourage the CEC to modify new forms being developed for HVAC alterations.
- Invite the CEC to participate in the compliance improvement advisory groups.
- Respond to CEC request to improve the quality of work performed by energy analysts. New courses such as the "T24 Standards Essentials for Energy Consultants" and "Modeling Essentials" will be developed.

**Recommendation 6:** Document and clarify the role of activities less targeted and focused than the preparation of CASE reports to establish the linkage to the adoption of other standards

**PIP page or section:** pages 711, Figure 2, Strategy 1-4

**Response:** The IOU C&S staff, as well as their contractors, will actively participate in ratings and model code organizations such as ASHRAE/IES and federal rule-making procedures,

contributing their expertise and analysis consistent with the California Title 24 process to ASHRAE/IES and other federal standards proceedings.

This recommendation from the CPUC-ED evaluation contractors relates to previous code enhancement proposals that were not prepared by the IOUs as code and standards enhancement (CASE) studies e.g. the composite for remainder in the Title 24 2005 update. To the extent that there are additional code enhancement proposals beyond the IOU proposals in the 2008 and 2011 code update cycles, the IOUs will document the linkages of IOU activity to the adoption of those standards.

## **Process Evaluations (Statewide)**

The IOUs have discussed and evaluated the recommendations from the process evaluation *Codes & Standards Process and Market Assessment Study* conducted by the Heschong Mahone Group. The recommendations below have been or will be integrated them into the Codes and Standards (C&S) PIP.

**Recommendation 1:** Consistency in program administration

**PIP page or section:** page 738, Section 8b

**Response:** The IOUs are coordinating program statewide consistency through the C&S statewide group. Coordination with external entities (CEC, CALBO, and other stakeholders) will be done as consistently as possible, while the IOU program managers work within the broader context of differing corporate cultures, and organizational structures, competitive strategy and respective customer needs.

**Recommendation 2:** Create and document program strategy

**PIP page or section:** Section 8b

**Response:** The IOUs are coordinating the development of code enhancement proposals and a compliance enhancement training approach. The 2010-12 PIP documents the program strategy. Organizational issues include determining areas of specialization (i.e., Title 20 vs. Title 24 code change proposals), methodologies for code enhancement selection criteria (quick, cost effective opportunities vs. long term savings opportunities) and a framework for collaboration in joint efforts for code enhancement study development.

**Recommendation 3:** Consider program opportunities

**PIP page or section:** Page 707, Figure 1 and page 723, Table 6

**Response:** In response to this recommendation, the IOUs have considered all program opportunities identified in Table 3 of the process evaluation report.

## **Emerging Technologies Program (ETP)**

### **Impact Evaluations (Statewide)**

The IOUs have discussed and evaluated the recommendations from the impact evaluation *Final Report: Evaluation of the California Statewide Emerging Technologies Program*, dated February 4, 2010 conducted by Summit Blue Consulting, LLC. The recommendations below have been or will be integrated into the 2010-2012 Emerging Technologies Statewide Program PIP, as described below.

**Recommendation 1:** Improved quality and consistency of documentation of processes, procedures, and decision-making.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation by incorporating value proposition to Technology Assessments, Demonstration Showcases and Scaled Field Placements.

**Recommendation 2:** Expand use of interdisciplinary project teams to improve technology selection processes.

**PIP page or section:** NA

In response to this recommendation, the IOUs will adopt this recommendation.

**Recommendation 3:** Develop more robust technical and market potential estimates.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. One of the new program elements. Budget for this is small. "Robust" should mean using data that's not from the manufacturer, using secondary data from reputable sources, or gathering primary data when necessary.

**Recommendation 4:** Expansion of the technology selection process to include a broader array of stakeholder interests and perspectives to increase the transparency and rigor.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. We do this in the context of ETCC, TRIO, and Open Forum.

**Recommendation 5:** Enhance data tracking systems and activities.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation and will implement the CPUC database structure.

**Recommendation 6:** Increase collaboration with EE program staff and the CPUC to create consistent project naming and numbering conventions, decision documentation, and feedback loops.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation and will implement the CPUC database structure.

**Recommendation 7:** Continue dialog with the CPUC to ensure a smooth transition to the 2010-2012 program cycle by reaching agreements on the performance indicators.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation.

**Recommendation 8:** ETP staff should collaborate with the CPUC to finalize the performance indicators.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. and work with ED to modify Data Requirement Manual (DRM) as necessary.

**Recommendation 9:** Track program progress over time.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation and will implement the CPUC database structure.

**Recommendation 10:** Identify opportunities to increase program effectiveness.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation.

**Recommendation 11:** Communicate program efforts and success to external stakeholders.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation via the ET Open Forum, ET Spotlight Webinar, and ET Summit.

**Recommendation 12:** Support ongoing program management and evaluation.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. The new CPUC database tracking system will support ongoing M&E activities.

**Recommendation 13:** Portfolio Evaluation framework and value propositions and documentation of program decision-making should be better integrated into program implementation process.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation and will include value propositions as part of the proposal.

**Recommendation 14:** ETP leadership should establish priorities for areas in which significant market research efforts should be undertaken by ETP staff.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. Market and Behavior Studies is one of the new program elements.

**Recommendation 15:** ETP should expand its use of interdisciplinary project teams to improve technology selection processes.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. ETP is also engaged with IDSM efforts and other programs such as C&S, HVAC, and DR.

**Recommendation 16:** Utilities should improve the quality and consistency of documentation regarding program decision-making and data tracking processes, especially for the transfer phase.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. This is part of the "Clearinghouse" process for any adoptable measure or technology. In addition IOUs will implement the CPUC database structure which will improve data tracking process.

**Recommendation 17:** Improve ETCC meeting minutes to clearly document each meeting's action items, distribute the meeting minutes within several days of meeting completion.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation.

**Recommendation 18:** Endeavor to broaden meeting participation to include a more diverse set of participants working within the realm of emerging technologies.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will take the following action; the ETCC is already a public forum; however, membership should not be expanded to keep it manageable. Alternative venues such as TRIO and Open Forum are examples of broader stakeholder participation.

**Recommendation 19:** ETP staff should make an effort to improve the quality and consistency of program documentation to ensure a clear record of program processes and decision-making exist.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation and will implement the CPUC database structure.

**Recommendation 20:** Improve basic data tracking activities to include assigning unchanging master IDs, archiving data in a standard format, and refining implementation processes to facilitate tracking of technologies transferred.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation and will implement the CPUC database structure

**Recommendation 21:** ETP management, the CPUC, and other interested stakeholders should engage in a dialog regarding the ultimate goals of the ETP and the degree of scientific rigor necessary to support those goals and to support the development of a common understanding and expectation for scientific rigor.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will take the following action; we agree on engaging CPUCs' Energy Division to discuss IOUs' position on this matter.

**Recommendation 22:** ETP staff and the CPUC should collaborate to establish a set of standards for the design, execution, and documentation of technology assessments.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. Standards were developed within each IOU to implement technology assessments taking into consideration the feedback provided during the evaluation process and IOUs individual unique operations.

**Recommendation 23:** The CPUC and ETP management at each utility must come to an agreement on the role of and goals for the ETP. Once consensus on these roles and goals are achieved, the goal and theory behind the ETP must clearly and unambiguously communicate to all ETP staff and contractors.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation.

**Recommendation 25:** ETP project managers should clearly identify and document the incumbent technology to which the emerging technology will be compared in every assessment project.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation. Incumbent technology is clearly identified in all assessments unless it's new, or a new application of an existing technology.

**Recommendation 26:** ETP assessment projects should be designed such that the only change made to the system under study between the pre-post-retrofit periods is the installation of the technology or technique being evaluated. When multiple energy-saving measures are installed in the course of a project, it is essential to install instrumentation and stage data collection so that energy consumption impacts of each measure can be determined independently of the others.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. We understand that this approach is included in enhancements of scientific rigor for ET elements, especially Assessments.

**Recommendation 27:** ETP assessment projects should document the calibration of the instrumentation used to measure and characterize technology performance.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. Utilities will document the calibration of instrumentation per manufacturer's specifications when conducting their own measurements. When working with consultants, utilities will request an instrumentation plan documenting the calibration protocols to ensure proper accuracy.

**Recommendation 28:** ETP staff should validate the accuracy and proper sensitivity of sensors and the proper functioning of data loggers prior to initiating data collection.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will take the following action. Utilities will document the calibration of instrumentation per manufacturer's specifications when conducting their own measurements. When working with consultants, utilities will request an instrumentation plan documenting the calibration protocols to ensure proper accuracy.

**Recommendation 29:** Project managers should present the uncertainty associated with all measured data in project documentation.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation.

**Recommendation 30:** ETP staff should measure and document the baseline performance of the incumbent technology in every ETP assessment project.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation.

**Recommendation 31:** Use relevant monitoring protocol such as the International Performance Monitoring and Verification Protocol for technology assessments.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation.

**Recommendation 32:** ETP staff should reject funding proposals for projects in which a manufacturer or vendor would evaluate its own technology.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation. We agree, however, in some special situations vendor participation in the evaluation process is necessary. Examples may include CEC-PIER co-funded projects where the vendor is a lead, and technologies with integrated measurement/diagnostics systems are built in. In these cases, ETP staff will work to establish protocols that allow for the independent validation of results.

**Recommendation 33:** ETP staff should require approval of a written project plan that includes a description of project goals, identification of all variables, a monitoring plan, the calibration of all instrumentation and a description of the data analytical procedures.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. ET Assessments currently require a test plan (including monitoring plan), resource plan, and methodology. The only parameter under development is including appropriate calibration information and calibration protocol.

**Recommendation 34:** ETP staff should establish formal procedures to communicate problems that endanger project validity to senior ETP management.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation and it is now part of the monthly project review and update.

**Recommendation 35:** ETP staff should include the incremental cost of procuring, installing and operating, and maintaining the technology being evaluated as part of the assessment.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation. Incremental cost for procuring and installing technology will be recorded, and operations and maintenance costs will be documented, when available.

**Recommendation 37:** Train ETP staff to draw conclusions regarding a technology's performance only where the effect of that technology can be isolated from other system changes.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation.

**Recommendation 38:** ETP staff should design technology assessment projects to investigate and document important non-energy performance characteristics that may provide crucial insight into market viability and the advisability of transferring the technology to the EE program.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs will adopt this recommendation. If relevant to customer or utility, we will attempt to collect this information on a case by case basis and will document anecdotal evidence that arises during the course of the assessment, but will not conduct a separate investigation.

**Recommendation 39:** ETP project managers should provide the background and objectives of the project, description of the existing system and emerging technology, results of changes, instrumentation, data analysis procedures and conclusion drawn.

**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation, but will look at ways to enhance information in the report.

**Recommendation 40:** ETP staff should document the assumptions and parameter values used as input to technology performance models developed for assessment projects.



**PIP page or section:** NA

**Response:** In response to this recommendation, the IOUs have adopted this recommendation, when appropriate for element/project type.

## **Workforce Education & Training (WE&T)**

### **Impact Evaluations**

#### ***Workforce Education & Training (WE&T) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the impact evaluation *Indirect Impact Evaluation of the Statewide Energy Efficiency Education and Training Program* conducted by ODC. The recommendations below have been or will be integrated into the Workforce Education and Training PIP, as described below.

**Recommendation 1:** Clearly identify program goals and performance metrics and ensure that these are acknowledged by both the utilities and the CPUC either prior to the program cycle, or as early as possible.

**PIP page or section:** N/A

**Response:** The IOUs are developing metrics as part of the Statewide program performance metrics process.

**Recommendation 3:** Create a common registration form that is used across all nine Centers.

**PIP page or section:** pg 26 of SW Workforce Education & Training PIP

**Response:** The IOUs will be revisiting their registration data collection process and exit surveys during 2010-12 to collect more robust knowledge questions pre and post training sessions.

**Recommendation 4:** Use consistent data entry for course and participant tracking.

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will be revisiting their registration data collection process and exit surveys during 2010-12 to collect data more consistently.

**Recommendation 6:** Ensure that future evaluation methods and techniques seek to measure more than just energy savings.

**PIP page or section:** pgs 41, 66, 76 of SDG&E SW Workforce Education & Training PIP

**Response:** This recommendation will be addressed by IOU EM&V staff.

**Recommendation 7:** Measure participant knowledge gain on an ongoing basis. Ideally, participants would be asked to assess their existing knowledge of the course topic when registering for the course and then again shortly after taking the course.

**PIP page or section:** pgs 3, 17 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will be revisiting their registration data collection process and exit surveys

during 2010-12 to collect more robust knowledge questions pre and post training sessions.

**Recommendation 8:** Include questions on decision making and other demographic and firmographic information that can help better understand barriers to action.

**PIP page or section:** pgs 3, 17 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs capture demographic and firmographic data during registration and exit survey - the IOUs will be revisiting their registration data collection process and exit surveys during 2010-12 to collect more robust decision making data.

**Recommendation 9:** Plan to implement different research designs for end users and market actors. This would require Centers to collect information on participant types at registration as recommend above.

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** As the IOUs revisit the participant registration and exit survey redesign, they will consider offering different questions by seminar and participant type (e.g., market actors vs. end-use customers)

**Recommendation 10:** Focus on market actors for future evaluation efforts, since effects are broader and less understood.

**PIP page or section:** pgs 41, 66, 76 of SDG&E SW Workforce Education & Training PIP

**Response:** This is an EM&V issue that IOU EM&V staff will address.

## **Process Evaluations**

### ***Workforce Education & Training (WE&T) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the process evaluation 2006-2008 SCE Energy Centers (AgTAC, CTAC) Process Evaluation Report conducted by Deb Laurel & Assoc. The recommendations below have been or will be integrated them into the Workforce Education and Training PIP, as described below.

**Recommendation 11:** PY 09-11 metrics should be adjusted to reflect PG06-08 findings; 10% new attendees is no longer an appropriate goal.

**PIP page or section:** N/A

**Response:** The IOUs are developing metrics as part of the Statewide program performance metrics process.

**Recommendation 13:** Paradigm shift needed in education model of ECs in order to fulfill mission of creating awareness, increasing knowledge, changing attitudes and affecting behavior related to energy use. Need to (1) Accurately take stock of current offerings how they help accomplish goals of ECs; (2) identify any important gaps in current curriculum to refine classes to better meet goals; and (3) develop instructors' facilitation skills and accommodating various learning styles.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will conduct a WE&T Needs Assessment and identify any additional learning principles that can be applied during planning of program design and portfolio development. The IOUs will continue prior efforts to adopt adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.).

**Recommendation 14:** Taking Stock of “Where We’re At”; Label Classes to Identify the Learning Level Associated with the Desired Outcomes; Require Lesson Plans for All Classes; and Create More Effective Evaluation Tools

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.)

**Recommendation 15:** Increasing Effectiveness of Current Training; Develop Facilitation Skills; and Meet Different Learners’ Needs

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.)

**Recommendation 16:** More clearly and directly support the programs in the classes, actively encouraging participation in relevant programs incentive and rebate programs.

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will develop and implement a referral system to link seminar attendees with related IOU programs and to IOU account representatives (for assigned customers).

**Recommendation 17:** Integrate program-specific information into the training experience

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will develop and implement a referral system to link seminar attendees with related IOU programs and to IOU account representatives (for assigned customers).

**Recommendation 19:** Actively encourage and support behavior change on the part of class participants-helping participants bridge the gap between classroom training and real-world application is key to successfully influencing participants’ on-the-job (and at-home) behavior.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.) which encompasses referral system and linkages to other seminars and related IOU programs.

**Recommendation 20:** Include specific suggestions (and discussions or activities) focused on “next steps”

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.).

**Recommendation 21:** Provide participants with action-oriented checklists and worksheets that they can use after class.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.).

**Recommendation 22:** Provide “real world” examples of how others have benefited by acting on the measures and practices addressed in the class.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.).

**Recommendation 23:** Over time, consider developing a program-oriented, web-based “performance support system” that would help customers identify the most relevant programs for their situation and needs.

**PIP page or section:** N/A

**Response:** The IOUs will link registrants EE programs at registration.

**Recommendation 24:** Keep up the good work relative to tie-in between exhibits and programs and classes, continuing to ensure exhibits illustrate related concepts, technologies, and measures.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue current best practice.

**Recommendation 25:** To enhance support of classes at CTAC, consider using AgTAC’s approach to “volatile” signage promoting classes directly at related exhibits.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.).

**Recommendation 26:** Enhance support of incentive and rebate programs

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will develop and implement a referral system to link seminar attendees with related IOU programs and to IOU account representatives (for assigned customers).

**Recommendation 27:** Better leverage exhibits with independent audiences

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.).

**Recommendation 28:** Over time, refine the focus of exhibit signage and collateral focus to more directly encourage behavior change.

**PIP page or section:** pg 35 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.).

**Recommendation 29:** Use the fundamentals classes as gateways to additional ones by building in reasons for participants to come back for other classes.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.)

**Recommendation 30:** Motivate participants to make energy efficiency changes. Tie the content to rebates, show direct monetary value to participants, and tie class content to other classes.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** SCE has introduced a participant action plan - IOU EM&V will assess the effectiveness of the action plan during the 2010-12 process evaluation and consider rolling it out to the other centers if it is effective. The IOUs are also developing case studies and testimonials that demonstrate real world savings achieved.

**Recommendation 31:** Make classes easier to attend for very busy people and those who live far away: More satellite classes; Make value more evident in descriptions; Offer some shorter classes; Offer evening and weekend classes; Offer online classes or DVDs and develop a library of classes; Offer more evening and weekend classes

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will be continuing to increase off-site and web-based classes.

**Recommendation 33:** Make class descriptions clear and accurate and make the value of the class apparent in the descriptions.

**PIP page or section:** pg 32 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs are improving their seminar marketing and information to be more clear during 2010-12, e.g., including a value statement such as "What's in it for me" in the course description and a matrix that links profession to seminar.

**Recommendation 34:** Make classes more hands-on, interactive, visual, and include demonstrations.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue prior efforts to adopt additional adult learning principles (e.g., train center staff and trainers, label classes by level, develop lesson plans, etc.)

**Recommendation 35:** Build on known motivations for attending in marketing materials and

class content:

**PIP page or section:** pg 32 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs are improving their seminar marketing and information to be more clear during 2010-12, e.g., including a value statement such as "What's in it for me" in the course description and a matrix that links profession to seminar.

**Recommendation 36:** Offer more classes aimed at overcoming bureaucratic barriers.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will conduct a WE&T Needs Assessment to identify any course gaps that can enhance learning. The IOUs will take this recommendation under further consideration by evaluating the extent to which their existing seminars already address bureaucratic barriers.

**Recommendation 38:** Consider more research on first-time, one-time and frequent participants

**PIP page or section:** pgs 41, 66, 76 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will continue to work with EM&V to assess barriers to repeat participation - the IOUs continue to ramp up satellite classes and are piloting some web-based learning concepts for 2010-12 and expanding the types of seminars offered to address known barriers including location/time constraints and desire for additional subject matters

**Recommendation 39:** Ensure that program theory, design, and evaluation all are aligned in terms of the type of kind of attitudes, awareness and knowledge (AKA) they are intended to have an affect on

**PIP page or section:** pgs 3, 17 of SDG&E SW Workforce Education & Training PIP

**Response:** SCE has already revisited its program theory as a result of the process evaluation and aligned it with AKA and has shared the results with the statewide IOU WE&T team

**Recommendation 40:** During program planning, explicitly decide which "motivators" to target. (i.e., environmental, self interest, limited resources)

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs are improving their seminar marketing and information to be more clear during 2010-12, e.g., including a value statement such as "What's in it for me" in the course description and a matrix that links profession to seminar.

**Recommendation 41:** Measure participants' intentions regarding EE behaviors as well as their actual post-program behavior.

**PIP page or section:** pgs 3, 17 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will be revisiting their registration data collection process and exit surveys during 2010-12 to collect more robust knowledge questions pre and post training sessions.

**Recommendation 42:** Further improve program planning by looking more deeply into social ecology theories of behavior change, together with the supporting empirical research.

**PIP page or section:** pgs 3, 17 of SDG&E SW Workforce Education & Training PIP

**Response:** SCE has already revisited its program theory as a result of the process evaluation and aligned it with AKA and has shared the results with the statewide IOU WE&T team.

**Recommendation 55:** Examine the types of participants served by the current offerings and seek to expand the targeted segments.

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs are conducting targeted outreach using industry boards, trade associations, educational institutions and community organizations. The IOUs will use the results of the WE&T needs assessment to identify segments that need to be better served by seminars.

**Recommendation 56:** Consider offering internet-based trainings and/or training materials in order to expand the reach of this program.

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will be continuing to increase off-site and web-based classes.

**Recommendation 57:** Actively seek to track the energy efficiency behaviors promoted through the seminars.

**PIP page or section:** pgs 3, 17 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will be revisiting their registration data collection process and exit surveys during 2010-12 to collect more robust knowledge questions pre and post

**Recommendation 58:** Develop a systematic way of identifying synergistic programs for each seminar.

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will develop and implement a referral system to link seminar attendees with related IOU programs and to IOU account representatives (for assigned customers)

**Recommendation 59:** Continue to channel end-users into resource acquisition programs, where relevant; and more actively strive to reach out to market actors to help promote IOU programs.

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will develop and implement a referral system to link seminar attendees with related IOU programs and to IOU account representatives (for assigned customers)

**Recommendation 60:** Coordinate more closely with Program Managers and Account Representatives.

**PIP page or section:** pg 26 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs will develop and implement a referral system to link seminar attendees with related IOU programs and to IOU account representatives (for assigned customers)

**Recommendation 61:** Consider providing more detailed course materials, splitting some seminars by degree of baseline knowledge, and indicating the level of difficulty for all seminars.

**PIP page or section:** pg 18 of SDG&E SW Workforce Education & Training PIP

**Response:** The IOUs are improving their seminar marketing and information to be more clear during 2010-12, e.g., including a value statement such as "What's in it for me" in the course description and a matrix that links profession to seminar.

### ***Building Operators Certification (BOC) (Statewide)***

The IOUs have discussed and evaluated the recommendations from the 2006-2008 SCE Process Evaluation Report. The recommendations below have been or will be integrated them into the Workforce Education and Training PIP, as described below.

**Recommendation 1:** Consider adding web-based classes to reduce dropout and recruit students from smaller organizations.

**PIP page or section:** TBD

**Response:** SCE and Program Implementer (Team) have begun selecting webinar-based continuing education for BOC in 2008. The Team will build off of that effort to incorporate more distance learning education components into the BOC. Web based content development is a considerable effort requiring significant financial resources. The Program Implementer has responded to a US DOE FOA for ARRA funds to support web based content development and if awarded this will be an area of significant focus in 2010 and 2011.

In 2009, NEEC and PG&E agreed to begin short technical webinars for providing important content and to promote BOC training at the same time. We recognize the value of online training, however, not all material will transfer in a useful way. We also recognize the value of interaction and networking with other building operators.

**Recommendation 2:** Consider adding classes offered in the evenings and weekends for the same reasons.

**PIP page or section:** TBD

**Response:** Using pre-recorded distance learning material, the Team will provide flexibility for participants to access class material on evenings and weekends. Market demand for evening and weekend BOC courses is considerably lower than that of day time courses. Delivery of evening courses is also considerably more expensive because instructors would deliver in two parts v. one part. The Team is open to testing this model of delivery if resources are available to the cover additional costs. An ARRA award (described above) would enhance this opportunity. We will discuss this option with BOC administrators and consider pilot sessions to gauge interest and cost.

**Recommendation 3:** Consider establishing stronger links to SCE programs in the curriculum

**PIP page or section:** TBD

**Response:** The 2010-12 Program Ramp-up (as stated in the SOW) will offer training on EE programs and offerings.

The Team will work to incorporate SCE program module at the beginning and at the end of each Levels I and II Course Series. As done in 2009, the Program Implementer will continue



leveraging the SCE Program Manager to actively and strategically schedule SCE representatives to speak about their programs and offerings. PG&E will also work with BOC to integrate information about rebate and incentive programs into their day and/or curriculum. This might be in the form of literature as well as PG&E representatives. We will also look for ways to make connections between BOC and other professional organizations such as BOMA (Building Owners and Managers Association) and local governments who have their own green building programs.

**Recommendation 5:** Consider making some advance class material mailings even if it cannot be the full workbook.

**PIP page or section:** TBD

**Response:** Class material will be made routinely available to students in advance of courses. The material will be a course syllabus providing both content outlines for the classes as well as suggested readings in preparation for the course. We will discuss making these materials available electronically so as to keep costs down for printing and mailing. We would like to point out that copyright issues may limit dissemination.

**Recommendation 6:** Institute quality control processes for updating the database.

**PIP page or section:** TBD

**Response:** The Team will discuss with evaluators specific issues they found with the database. The outcome of this discussion will be a set of recommended improvements to the database. The Program Implementer has made significant investments in a high quality database custom designed by a third party vendor for BOC. The database allows for a robust set of queries and retrieval of data. Specific issues identified by the evaluation team will be addressed.

**Recommendation 7:** Consider maintaining a database (or spreadsheet) capturing individuals' responses on the exit surveys

**PIP page or section:** TBD

**Response:** Program Implementer will be required to maintain records and share with IOU program managers of individual exit surveys by class for each participant.

**Recommendation 8:** Increase efforts to market the program to smaller firms (see above)

**PIP page or section:** TBD

**Response:** The BOC Program's target market are employers within the C/I sector who employ full time building operators. Smaller firms may or may not have full time dedicated building operators and as such would not be a likely prospect to attend BOC training. The Team will work with SCE's Small Business Solutions Division to best assess this group's needs and interest in BOC. Additionally, the assessment should make every effort to leverage secondary data.

PG&E will include information about BOC on its printed calendar and classes web site. Where appropriate, we will also mention BOC training during classes.

**Recommendation 9:** Increase efforts to strengthen new marketing channels as intended after the last evaluation

**PIP page or section:** TBD

**Response:** The Team will finalize the proposed 2009-11 Marketing Plan (6/09). Marketing activities will include partnering with SCE Partnership's Energy Leader Model and professional organizations such as BOMA (already being implemented in 2010). Additionally, the likes of SCE's site ([www.sce.com/solutions](http://www.sce.com/solutions)), Energy Centers, and Business Solutions should be more effectively leveraged. SCE.com can more predominantly feature BOC; Energy Centers could start by including course series schedules and informational and technical webinars in quarterly calendars; and the Small Business Solutions Division can be engaged as described above. Also, the Team is in discussion with the SCE RCx program manager about integration on BOC training into the RCx program. PG&E has agreed that it would receive a limited number of free seats for program managers to distribute to their customers.

**Recommendation 10:** Encourage instructors to fulfill the in-class activities as they are designed.

**PIP page or section:** TBD

**Response:** The Team will place contract language into instructor contracts establishing the requirement that class activities be implemented as designed in the curriculum. The Program Implementer Principals both hold certificates in curriculum design from the American Society of Training and Development (ASTD) and are supportive of participant centered learning approaches.

**Recommendation 11:** Implement a meaningful "debrief" of practice assignments (homework); use the debrief as a way for experts (instructors) to provide meaningful guidance to students, for students to share their ideas, thoughts, and challenges amongst themselves, and for individuals to develop personal action plans to implement what they've learned.

**PIP page or section:** TBD

**Response:** The Team will work to incorporate a classroom procedure that allows for meaningful feedback on project assignments. The Program Implementer will provide opportunities within the class to both share student experience and provide opportunity to create action plans.

**Recommendation 12:** Improve the final exam and related process so passing an exam clearly indicates that a student has met the objectives for that class.

**PIP page or section:** TBD

**Response:** The Program Implementer will revise final exams as needed to align questions with class learning objectives.

### ***PGE2010 Education and Training Program (PG&E)***

PG&E has evaluated the recommendations from the process evaluation *Target Market Schools & Colleges Program School Energy Efficiency Program Campus Housing Energy Efficiency Program*, study ID PGE0271.01, conducted by The Cadmus Group. The recommendations below have been or will be integrated them into the PGE 2109, Workforce Education and Training (WE&T) PIP, as described below.

**Recommendation 1:** Continue implementation of process improvement project and collect periodic feedback from internal and external stakeholders (participants). At the end of 2007,

PG&E initiated a comprehensive process improvement effort to address some of the issues described in this report. This effort is exemplary and should be continued.

**PIP page or section:** TBD.

**Response:** PG&E is continuing the process.

**Recommendation 2:** Program design theory and goals should be communicated to staff at the beginning of the program cycle and reinforced throughout the program offering.

**PIP page or section:** TBD.

**Response:** Communications on program design theory and goals are being reinforced by the development of detailed program metrics, grounded in the program logic models.

**Recommendation 3:** PG&E should undertake a systematic review of program planning assumptions in conjunction with a baseline study of existing energy management practices in the Schools and Colleges sector to ensure that the complexity of program application processes is not hindering participation.

**PIP page or section:** TBD.

**Response:** There are several initiatives underway to address the streamlining of our application process for the schools market. This includes actions like shortened and simplified applications, specific outreach and marketing activities targeted to schools, and increased account representative assignments to unassigned smaller school accounts.

**Recommendation 4:** PG&E should ensure that the strategic sales meetings provide S&S staff with sufficient opportunities to review and comment on planned marketing efforts prior to launching them.

**PIP page or section:** TBD.

**Response:** This is a key focus in the 2010-2012 program cycle.

### ***Food Services Technology Center (PG&E)***

PG&E has evaluated the recommendations from the process evaluation, *PG&E Process Evaluation and Strategic Assessment of the Food Services Technology Center*, study ID PGE0267.01, conducted by PA Consultants. The recommendations below have been or will be integrated them into the PGE 2109, Workforce Education and Training (WE&T) PIP, as described below.

**Recommendation 1:** Consider opportunities for budget re-allocation that better align the FSTC's operations with PG&E's goals. A budget re-allocation should consider expanding FSTC's seminars, site surveys, and technical assistance offered to end-users. At the same time, FSTC should seek cost-sharing opportunities for FSTC activities that are resulting in benefits outside of PG&E's territory. Cost-sharing of equipment testing services, particularly the specialized services available through the Chicago Ventilation Laboratory, would allow a greater percentage of the FSTC budget to be expended on other of its activities that result in quantifiable energy impacts for PG&E end-users.

**PIP page or section:** Budget recommendation has been incorporated into Table 1 on page 2. FSTC outreach is found on pages 37-38: 6.1 b vi.

**Response:** The program has looked at these possibilities. Budget is the key limiting factor with regard to expanding FSTC's offerings. After reviewing the concept, FSTC has determined that charging is viable only for steamer, fryer, and ventilation testing under the current business model. Currently, FSTC does share cost with manufacturers on these measures; the manufacturers of other equipment stopped sending products when charged for testing services. The CPUC rejected an FSTC Advice Letter asking permission to conduct studies on energy impacts on the grounds that such work fell under EM&V. The 2010-2012 budgets have been reallocated to provide more funding for field activities and customer outreach. If we are allowed to spend the contract budget amount in 2010, these activities will receive greater emphasis.

**Recommendation 2:** Increase FSTC's coordination with PG&E's Customer Energy Efficiency (CEE) mass and target market programs that result in quantifiable energy savings. Several PG&E staff said they would like to make greater use of FSTC resources for PG&E's integrated energy audits and retro-commissioning when customers have food services processes. Without clear cost information, the FSTC's usefulness to PG&E's CEE programs is limited. The FSTC should continue to develop its portfolio to enable increased coordination with these CEE target market programs.

**PIP page or section:** TBD

**Response:** PG&E and the FSTC work closely to audit food service customers and assist with integrated audits at the request of Field Services. The FSTC concentrates its efforts in the field on large institutional and commercial kitchens, as well as on chains, to maximize the impact of limited resources. FSTC has also developed a spreadsheet-based kitchen audit tool to be used by field reps.

**Recommendation 3:** Expand FSTC's efforts to support PG&E's food services equipment incentive program. End-users reported the FSTC was influential in their decision to purchase rebated equipment. While PG&E's efforts in food services equipment incentives are leading the country, market actors report that the selection of qualifying equipment is still fairly limited. The FSTC should continue to work closely with the PG&E food services equipment rebate program manager to expand both the breadth and depth of rebated equipment as appropriate to expand energy saving opportunities. Related to recommendation #1 above, we also recommend PG&E explore cost-sharing opportunities with the other California IOUs for the work necessary to expand the food services equipment incentive program.

**PIP page or section:** TBD

**Response:** There is confusion between the Energy Star Program and the qualifying products the FSTC lists. Energy Star only has nine categories of food service equipment while FSTC has developed 38 ASTM test standards and PG&E has 13 different equipment types in its rebate program. FSTC works closely with ASTM and Energy Star to develop new standards and support new energy specifications for commercial cooking equipment. PG&E does share costs with other IOU's for seminars, trade shows and marketing. There is some movement toward building some test capability at SCG and SCE.

**Recommendation 4:** Increase the marketing of the FSTC to PG&E food services end-users. PG&E staff interviews suggest that the primary way the FSTC should be promoted to end users is through PG&E account services. Therefore FSTC should continue to look for opportunities to train account services staff on FSTC services and perhaps also provide account managers FSTC marketing materials to share with their customers. Interviews also indicate there may be a role for the FSTC in direct outreach to end users. PG&E will need to decide to what extent they

want to balance the outreach they do directly to end-users through account services and the extent to which they want to fund FSTC to conduct direct customer outreach.

**PIP page or section:** TBD

**Response:** FSTC works closely with both account services personnel and CEE staff to promote programs and is looking to increase training in 2010.

**Recommendation 6:** Continue information dissemination to equipment manufacturers/suppliers and related organizations. While the percentage of end users going to the FSTC for energy information should increase with increased marketing of the FSTC discussed above, manufacturers/suppliers, trade publications and other associations and organizations will most likely remain important sources of information for end users. Therefore the FSTC should continue their work with these market actors.

**PIP page or section:** TBD

**Response:** FSTC continues its relationships with all suggested market actors. FSTC has expanded its presence with its website and Internet-based training and is supporting initiatives by National Restaurant Association (NRA) and others to provide video and web-based training to food service personnel.

### ***Technology and Testing Center (TTC) (SCE)***

SCE has evaluated the recommendations from the 2006-2008 process evaluation, conducted by KVD and McLain. The recommendations below have been or will be integrated them into the Workforce Education and Training (WE&T) PIP, as described below.

**Recommendation 1:** Include more practice and "check your understanding" opportunities in each course

**PIP page or section:**

**Response:** Accept, although TTC will be part of ETP, however, these recommendations still make sense to adopt due to its responsibility to disseminate information to customers and participants. This will be implemented as part of ongoing curriculum redesign efforts through out 2010-2012.

**Recommendation 2:** Make the ties to relevant utility programs more overt, including specifics on how to take advantage of the programs and what the programs do and do not include

**PIP page or section:**

**Response:** See response to recommendation #1

**Recommendation 3:** Consistently provide information about the financial and non-financial benefits of the relevant measures and practices

**PIP page or section:**

**Response:** See response to recommendation #1

**Recommendation 4:** Include risk assessment and risk mitigation information when appropriate

**PIP page or section:**

**Response:** See response to recommendation #1

**Recommendation 5:** Train instructors in adult learning principles and practices

**PIP page or section:**

**Response:** See response to recommendation #1

***Mobile Energy Unit (MEU) (SCE)***

SCE has evaluated the recommendations from the 2006-2008 process evaluation, conducted by KVD and McLain. The recommendations below have been or will be integrated them into the Workforce Education and Training (WE&T) PIP, as described below.

**Recommendation 1:** Establish a method to help ensure timely and appropriate follow-up on leads that are handed off

**PIP page or section:**

**Response:** Agree. The MEU is developing a process by implementing a real-time PDA lead system. To follow-up on leads the MEU is working with PSO to scrub the leads against customer enrollment databases.

**Recommendation 2:** Track literature distributed by event - or monthly - that can be correlated to events

**PIP page or section:**

**Response:** Agree. The MEU is exploring ways to better track the literature that is distributed at events. Working with 3rd party contractor to develop a tracking system that will enable the material to be inventoried on a per event basis.

**Recommendation 4:** Implement basic data validation

**PIP page or section:**

**Response:** Agree. In 2010, the MEU real-time PDA lead system will validate each customer entry immediately. The system will be able to do a field-level data validation (SA Look-up), upload lead data to a central repository, integration with existing SCE data including e-mail opt-out listing, send real-time customized e-mail to customers, assign leads to respective project teams by making lead reports available via web portal.

**Recommendation 5:** Get post-event estimates of event attendees

**PIP page or section:**

**Response:** Agree. In 2010 the MEU incorporated a new requirement to work with the event coordinator to determine the actual number of event attendees after each event.

**Recommendation 6:** Categorize and track event sponsors and focus

**PIP page or section:**

**Response:** Agree. In 2010, the MEU PDA lead system will incorporate the event sponsor and focus to better categorized the events.

### ***Engineering Design Resource (EDR) Program (SCE)***

**Recommendation 1:** Develop a program theory with measurable goals, and strategies for achieving them, and for overcoming identified barriers.

**PIP page or section:**

**Response:** We agree and would like to get this done but it would require statewide coordination.

**Recommendation 2:** Set up an agreed-upon structure for management of the program, especially indicating who is to take the lead in bringing issues to closure and implementing decisions. This will facilitate implementing the first recommendation.

**PIP page or section:**

**Response:** See response to recommendation #1

**Recommendation 3:** Adequate funding and a permanent home for this program should be provided. One of the energy centers would be appropriate given the focus of this program on education and training. Implementing this recommendation would support implementing the others.

**PIP page or section:**

**Response:** There is adequate program funding for this program to make the necessary changes. The 10-12 program cycle allocates a 0.85 FTE to support this program. We need to resolve the appropriate point of accountability for this program or activity. Energy Centers seem an appropriate home, even as they have limited experience with web content strategies. To support EDR properly, some degree of new construction technical expertise is desired. Other alternative, particularly if architects are reconsider as a key market actor, are the Savings by Design program or the New Construction Services group.

**Recommendation 4:** Expanding the website to other sectors should be postponed until a firm management structure is in place, and the focus and goals of the website are agreed upon.

**PIP page or section:**

**Response:** We agree. This will be reflected in the program theory, logic diagram and process diagram.

**Recommendation 5:** Make website tools fully accessible to evaluators even if they are not trained in the engineering content.

**PIP page or section:**

**Response:** We agree. We will review the tracking system so evaluation and program attribution can be linked.

## Marketing, Education and Outreach (ME&O)

### Indirect Impact Evaluation (Statewide)

The investor-owned utilities (IOUs) have discussed and evaluated the recommendations from the indirect impact evaluation *PY 2006-2008 Indirect Impact Evaluation of the Statewide Marketing and Outreach Programs, Volume 1.*, conducted by Opinion Dynamics Corp, in conjunction with KVDR Inc., and J. J. Mitchell Analytics. The report was completed in February 2010. The recommendations below have been or will be integrated into an updated 2010-2012 PIP, as described below.

**Recommendation 1:** Include clearly defined program goals and performance metrics in program planning documents prior to implementation.

**PIP page or section:** Program Goals, Strategies and Measurable Objectives

**Response:** In response to this recommendation, the IOUs have agreed on specific and actionable goals as well as potential performance metrics for the program. These are documented in the program theory and logic diagram as well as the SW ME&O Marketing and Integrated Communications Plan and were created in close collaboration with SW MEO team which includes representatives from each of the IOUs and the CPUC.

**Recommendation 2:** Review messaging in the market prior to developing goals, and determine whether program efforts should enhance existing messages (through other channels, etc.), complement existing messages (e.g., by providing more detailed or broader information), or fill a void in messaging.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the SW ME&O team and implementers intend to review messages in the market place on an ongoing basis as we develop messaging for SW M&O.

**Recommendation 3:** Periodically assess the market (e.g., every three to six months) to monitor current message streams, and determine how program efforts should be adapted based on current market conditions.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the SW ME&O team and implementers will conduct ongoing market analysis to assess how the messaging fits in with the current market activities.

**Recommendation 4:** De-emphasize mass media (but do not eliminate it) as the primary element in the SWM&O program. Given the complex nature of energy efficiency and energy conservation (that is, the number of actions and the various stages for each type of action), this form of communication lacks the ability as a communications platform to meet Californians' need for specific and actionable information.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the Marketing and Integrated Communications Plan that provides a framework for the current implementers de-emphasizes mass media and



increases grassroots efforts. However, in initiating a new brand it will be important to utilize mass media to build initial and widespread brand awareness. We intend to appropriately balance the mass marketing efforts with more targeted and depth-oriented communication strategies.

**Recommendation 5:** Refocus SWM&O programs efforts on specific initiatives that are highly localized and targeted and have the capacity to provide detailed information about energy efficiency or conservation measures that will educate households and help move them to take action.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, The SW ME&O team is utilizing a more targeted approach to reaching customers through the ME&O program. An initial segmentation study was conducted by Opinion Dynamics Corporation in the fall of 2009. This information will guide more targeted communications to the needs and experiences of specified customers.

**Recommendation 6:** Future EM&V efforts should be based on multiple success criteria that measure both the behavioral impacts of the ME&O efforts as well as the intermediate effects gained through program outreach, such as increases in awareness, knowledge, attitudes, intention, or decreases in barriers.

**PIP page or section:** Program Goals, Strategies and Measurable Objectives

**Response:** In response to this recommendation, the program theory and logic reflects intended short, intermediate and long term effects. Based on the program theory and logic, the short term outcomes which include brand awareness and message recall are expected to lead to long term goals including sustained behavior changes and pervasive attitude changes. These will be measured via ongoing tracking efforts.

**Recommendation 7:** The CPUC and the program implementer should both work to acknowledge common metrics and success criteria so that the implementer has a clear target against which to be judged by an evaluator. Some of these may provide insights on a micro level (such as industry standards to help verify accomplishments), while others may be more informative at the macro level (such as efforts that speak to the overall effectiveness and success of meeting intended goals), but a common acknowledgement of these metrics is important.

**PIP page or section:** Program Goals, Strategies and Measurable Objectives

**Response:** In response to this recommendation, the SW MEO team, which includes the CPUC and IOUs, has jointly established common metrics and are communicating these to the program implementer. During this program cycle the program implementer will be working under more direct oversight of the CPUC & IOU program managers to insure all parties are working towards the same common goals.

**Recommendation 8:** Where mass media methods are used, exposure, reach and frequency metrics should be stated, and commonly accepted prior to program implementation. The use of these metrics should be used as one component of program accomplishments as they are an indication of how program dollars were spent. However, they are only one component as the quality of the mass media and effectiveness of the messages should also be part of any assessment.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the SW ME&O team intends to pursue multiple methods of assessing the success of the program including the effectiveness of the media in communicating the intended messages.

**Recommendation 9:** Future EM&V efforts for marketing and outreach programs should consider utilizing quasi-experimental methodologies, which are uniquely suited to tease out the effects of the M&O from other market influences. There should be a close collaboration between the implementer and the evaluator to design the assessments and allow for purposeful data collection that best enables determination of causality.

**PIP page or section:** NA

**Response:** In response to this recommendation, we acknowledge that quasi-experimental methodologies can be helpful in teasing out the effects of ME&O from other market influences. We anticipate that multiple methods of inquiry and investigation will be used as we enlist the expertise of research consultants to design a study that engages data collection methods that result in the best possible determination of causality given other considerations such as study costs and time.

### **Process Evaluation (Statewide)**

The investor-owned utilities (IOUs) have discussed and evaluated the recommendations from *the process evaluation 2006-2008 Statewide Marketing and Outreach Process Evaluation* conducted by Opinion Dynamics Corp. The report was completed in October 2008. The recommendations below have been or will be integrated into an updated 2010-2012 PIP, as described below.

**Recommendation 1:** The SWM&O implementers, the IOUs, and the CPUC need to agree on specific and actionable goals and objectives of the program, and need to determine a process by which the SWM&O program goals and objectives are explicitly reviewed and approved.

**PIP page or section:** Program Goals, Strategies and Measurable Objectives

**Response:** In response to this recommendation, the IOUs have agreed on specific and actionable goals and objectives for the program. These are communicated in the program theory and logic diagram as well as the SW ME&O Marketing and Integrated Communications Plan which was created in close collaboration with SW MEO team which includes representatives from each of the IOUs and the CPUC. The Program Implementer will use this as a roadmap to guide their implementation of the plan.

**Recommendation 2:** The SWM&O implementers and IOUs need to define a clear path to action to move those exposed to messaging to the intended outcome, adoption of energy efficient measures, such as clearly stating the role that the website, 800 number, or other tools that will lead consumers to more actionable information and/or to IOU DSM programs.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the SW M&O acknowledges that this is an ongoing process, nonetheless, the team has defined an initial roadmap within the Marketing and Integrated Communications Plan. Ongoing tracking and research will continue to inform the path to action to move those exposed to messaging to the intended outcome.

**Recommendation 3:** To better link the SWM&O efforts to the existing portfolio, the SWM&O program implementers and IOU DSM program’s creative needs to share themes, messaging and taglines, including the Flex Your Power name.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, IOUs acknowledge that, as appropriate, the SW M&O and IOUs will co-brand their marketing to better link their efforts. Implementers will coordinate so that SW ME&O messages are in harmony with IOU messages and timing. However, each IOU has a unique customer base and needs to have the flexibility to tailor messaging in order to reach those customers.

**Recommendation 4:** To distinguish themselves from a marketplace flooded with “green,” and global warming messaging in particular, the SWM&O program implementers need to determine their role in the current marketplace and identify a unique element that assists in achieving the anticipated outcomes. A blanket message, with little direction on how to take action, is not enough.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the SW M&O conducted both primary and secondary research on the market in 2009. This contributed to the development of the current marketing strategy which includes elements that will differentiate it from the general marketplace and the independent efforts of the IOUs.

**Recommendation 5:** To more clearly understand the role of Flex Your Power compared to Flex Alerts, the CPUC needs to clearly state whether education about conservation behaviors at non-peak times should be part of the SWM&O efforts.

**PIP page or section:** Program Implementation

**Response:** While the FYP brand has been retired, in response to this recommendation, the SW ME&O program team will address energy efficiency and energy conversation at peak and non-peak times.

**Recommendation 6:** To ensure that the CPUC’s direction is incorporated into the campaign, the CPUC should (1) be more involved in vetting the upfront planning process and project implementations plans (PIP) in a way that allows for program implementers to effectively adapt to changing demands on the program, and to ensure that CPUC stated campaign goals are clearly outlined in the PIP. (2) determine a clear process for providing feedback and making changes during the 2009-2011 program cycles and beyond. This feedback process should include a mechanism for on-going review and approval of key changes so that the all changes to the program plans not set forth in the PIP are tracked and approved by the CPUC. (3) thoroughly review, provide feedback and explicitly approve the program implementation plans (PIPs), outside of the normal review process. (4) clearly define a single decision maker within the CPUC; and (5) recognize the central role of Efficiency Partnership, and be in direct communication with this Efficiency Partnership.

**PIP page or section:** All

**Response:** In response to this recommendation, for the 2010-12 program cycle, the CPUC is collaborating with the IOUs in the Statewide ME&O program. A steering committee which includes representatives from the CPUC, each of the IOUs, and the implementers involved, meets regularly and discusses program planning and implementation on an ongoing basis. This

allows all stakeholders to be able to provide feedback to insure that the goals are consistent with the expectations and activities of the Program (and parallel individual IOU marketing activities). The Scope of Work that the implementers are working with includes activities that involve regularly monitoring progress towards the goals. Ongoing tracking studies will monitor progress towards the short, intermediate and long term goals.

**Recommendation 7:** To enhance the effectiveness of the program and ensure more even coverage, the IOUs and the CPUC should redefine FYPG's and FYPR's roles in terms of outreach effort rather than target markets. Namely, the CPUC and IOUs need to consider expanding FYPR's CBO and Print outreach into urban markets and FYPG's outdoor efforts into rural markets, thus ensuring that each region of the state is evenly targeted by the SWM&O programs.

**PIP page or section:** Program Implementation

**Response:** To some extent this recommendation is not applicable since the FYP program is being retired. At the same time, in response to this, the SW M&O has developed a new marketing plan that has taken into account the State's diverse population and needs and appropriate marketing channels for the target audiences.

**Recommendation 8:** To effectively align the Spanish efforts to create a more consistent educational approach, the CPUC and IOUs needs to align all Spanish-language efforts under the same program implementer.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, SW M&O hired a single full-service implementer that will utilize the expertise of specialized marketing professionals with inside knowledge of various ethnic markets (including Spanish) in order to insure that the Spanish efforts align with the overall efforts. These efforts will be coordinated by the master contractor under a single Marketing and Integrated Communications Plan.

**Recommendation 9:** To enhance the sophistication of the programs, the SWM&O programs should develop distinct marketing and outreach tools and strategies that mirror the media habits of its segments rather than relying on the same marketing and outreach tools for all Californians.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the SW M&O has developed market segments based upon the findings from primary and secondary research including a 2009 statewide segmentation study that identifies unique issues and potential channels for specific segments.

**Recommendation 10:** To better determine the segments and sub-segments that should be targeted for this effort, and the needs of each segment, the research budget for the SWM&O efforts should be consolidated into one, centralized research and development budget that may be shared among all SWM&O program implementers.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, unlike the previous FYP branding effort, the current SW M&O has hired a single full service implementer, so there will only be one research budget. In addition to the EM&V research budget, research funding is included in the program budget to assess and modify marketing activities as needed. Anticipated centralized research

efforts include brand research, segmentation research, tracking studies, and ongoing messaging research.

**Recommendation 11:** To better understand the existing segments in the market, the IOUs should share their customer segmentation research with the SWM&O efforts, wherever possible. This process will enhance the sophistication of the current campaign. (Alternatively, all three program implementers need to be provided adequate research budgets to conduct quantitative and qualitative formative research to better segment their target audiences.)

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, See Item 10. Also, a preliminary statewide segmentation study was conducted early in this program cycle to understand and establish viable targets for the SW MEO program.

**Recommendation 12:** To stay abreast of market trends and changes in attitudes, beliefs, and behaviors, the CPUC needs to consider funding an on-going statewide tracking survey to inform the marketing and outreach efforts of its programs.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, See Item 10.

**Recommendation 13:** To ensure a more consistent effort, the SWM&O programs need to develop a more unified strategy that clearly details the programs' Statewide measurable objectives, using the specific, measurable, agreed-upon, realistic, and time framed goals in a single strategy summary or report.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the SW M&O team has hired a new full-service program implementer. This will ensure a more consistent effort across the entire state of California. The new program implementer will build upon the newly developed Marketing and Integrated Communications Plan in order to launch a consistent effort across California. Regarding goals and metrics, see item 1.

**Recommendation 15:** To enhance the sophistication of the campaign and ensure that the programs' outreach methods are strategically aligned with the lifestyle and media habits of their targets, the SWM&O programs should better segment their audience, develop strategic outreach approaches tailored to these segments, and document the most appropriate tools for each audience or segment.

**PIP page or section:** Program Rationale and Expected Outcome

**Response:** In response to this recommendation, See Item 11. In addition, of the 5 segments identified by the 2009 Segmentation Study, two initial high priority segments have been identified to launch the effort. The media and messages will be crafted to address the specific attitudes and current behaviors characterized by these target segments.

**Recommendation 16:** To better understand the accomplishments of the SWM&O program (compared to Flex Alerts), the IOUs and the CPUC needs to develop minimum reach and frequency goals for the FYP energy efficiency campaign which must be met independent of the Flex Alert fighting.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the SW M&O team intends to consult with the new implementer in developing reach and frequency goals and determine if they need to be independent of the Flex Alert flighting. This will determine the best way to buy media that is beneficial to both the SW ME&O program and SW alert system.

**Recommendation 17:** To allow the SWM&O programs to better take advantage of unforeseen and non-traditional marketing tools, the SWM&O programs need to allocate a flexible, ad hoc budget which will allow the implementers greater flexibility and responsiveness to last minute opportunities for efforts such as using New Media (social networking, widgets, text messaging, viral flash), guerilla marketing, and other nontraditional marketing tactics.

**PIP page or section:** Program Rationale and Expected Outcome

**Response:** In response to this recommendation, The IOUs will have the flexibility working with the Implementer to be responsive to varied and new opportunities for different marketing strategies.

**Recommendation 20:** To ensure action, the SWM&O program implementers need to direct more of their advertisements to educating the public on energy efficiency measures and outline a clear "call to action," specifically: The SWM&O programs need to explicitly and clearly promote the program website and toll free number as a source for further energy efficiency information on all marketing materials. All SWM&O implementers need to emphasize the website more in their mass media efforts to provide consumers with the tools to act. The toll free-number also can be used by those who do not have internet access.

**PIP page or section:** Program Rationale and Expected Outcome

**Response:** While the FYP program is being retired, in response to this recommendation, the new SW M&O marketing plan outlines a number of general "calls to action" that will be tied to specific measures. The efforts will continue to be refined over the course of this program cycle and beyond.

**Recommendation 21:** Because of the rapidly Spanish-speaking population, the SWM&O program implementers need to maintain distinct marketing and outreach efforts for Spanish-speaking and English-speaking audiences.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, the IOUs agree and are working with the program implementers to be sure to maintain the appropriate specialized marketing efforts for the Spanish and English speaking markets.

**Recommendation 22:** To ensure consistency across Spanish efforts, the SWM&O program implementers and the IOUs need to develop a cohesive marketing and outreach strategy aimed at targeting Hispanics. To better target this highly stratified demographic, the SWM&O programs, IOUs, and the CPUC need to be cognizant of complex demographics within the Hispanic target audience. Implementers need to conduct market research and develop approaches that work for the various sub-segments.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, SW M&O recognizes that the Spanish speaking population in California is very diverse and intends to work with the new implementer to develop an ethnic marketing plan that will take this into consideration. The segmentation analysis includes a 400 sample of native Spanish speakers that provides information on how to better target the Hispanic population. In addition, the new Implementer will utilize specialists that are familiar with the diverse sub-cultures within California's Spanish Speaking population. Ongoing research efforts will coordinate with EM&V to assist in further appropriate targeting some of these sub-cultures.

**Recommendation 23:** To ensure that the most effective outreach tools are used to communicate with the target Hispanic target audiences, the SWM&O programs need to design outreach methods suited for its various and diverse audiences.

**PIP page or section:** Program Implementation

**Response:** In response to this recommendation, See item 22.

**Recommendation 25:** The FYP.org website is a valuable resource and Efficiency Partners needs to continue to build and develop the website (and other online efforts) as an educational and engagement tool as well as a channeling mechanism.

**PIP page or section:** Program Implementation

**Response:** While the FYP program/website will be retired, in response to this recommendation, as indicated in the Marketing and Integrated Communications Plan, a new user-driven web portal will serve as an educational and engagement tool as well as a channeling mechanism to IOU EE programs.

**Recommendation 26:** To increase website traffic, FYP should continue to allocate budget dollars to the website and referral sources (e.g. a search engine or an online ad that directs browsers to the FYP site).

**PIP page or section:** Program Implementation

**Response:** While the FYP program/website will be retired, in response to this recommendation, the SW ME&O recognizes the value of a web portal and has allocated, and will continue to allocate budget to tools that drive trafficked to the web as appropriate.

**Recommendation 27:** To increase visitor involvement in the site, FYP needs to consider additional web analytic tools to examine the information in order to understand the function, design and capacity of the website.

**PIP page or section:** Program Implementation

**Response:** Again, while the FYP program/website will be retired, in response to this recommendation, SW ME&O is currently developing a user driven web portal and we are

# Institutional Partnerships

## Impact Evaluations

### ***CCC IOU EE Program (Statewide)***

The IOUs have discussed and evaluated the recommendations from the Government Partnerships Programs Direct Impact Evaluation Report conducted by Summit Blue Consulting. The recommendations below have been or will be integrated into each IOU's California Community College (CCC)/IOU Energy Efficiency Partnership Program PIP, as described below.

#### **Recommendation 1:** Provide More Project Detail in Tracking System

**PIP page or section:** This recommendation has been incorporated into the following PIP sections.

PG&E: Section 5, Program Rationale and Expected Outcomes (p.62)

SCG: I.Sub PIP-CCC Sec 6c pg.44

SCE: Section 5a.4.c (p353)

SDG&E: page 46-47, section "Best Practices"

**Response:** The IOUs will continue to track projects at the measure-level in the CCC online project database. This allows for detailed tracking of measures and the ability to roll-up tracking and reporting at a higher summary project level. Individuals responsible for data entry have been trained to more accurately describe projects to avoid vague naming conventions. In addition, the website has a document repository that holds all applications and detailed review documents for each project.

#### **Recommendation 2:** Use Criteria in Assessing CCC Projects that Recognize Unique Features of Planning at CCC Campuses

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 5c, Program Design to Overcome Barriers, (p.67))

SCG: I.Sub PIP-CCC Sec 5c pg.35-37

SCE: Section 5a.6.a.ii (p363-364)

SDG&E: page 40-41, section "Advancing Strategic Plan Goals & Objectives"

**Response:** The IOUs are working with campuses to separate projects with long completion schedules or where scope changes have occurred into smaller projects. For cases in which splitting a project cannot capture all of the energy savings, a project will roll into the following program cycle.

#### **Recommendation 3:** Improve accuracy of ex ante lighting operating hours estimates

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** The IOUs have implemented continuous improvement measures in project development efforts at campuses and IOU due diligence review processes to focus on operating hours and equipment run-times.

### ***UC/CSU IOU EE Program (Statewide)***

The IOUs have discussed and evaluated the recommendations from the Government Partnerships Programs Direct Impact Evaluation Report conducted by Summit Blue Consulting.



The recommendations below have been or will be integrated into the each IOU's University of California/California State University (UC/CSU)/IOU Energy Efficiency Partnership Program PIP, as described below.

**Recommendation 1:** Standardize participant Data Requirements

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 6a, Statewide IOU Coordination (p56)  
SCG: III. Sub PIP-UC/CSU 6.ii. Pg.58  
SCE: Section 5.6.a.ii (p472)  
SDG&E: page 60-61, section "Quality Assurance Activities"

**Response:** The IOUs will continue to be consistent statewide in information requested on project applications. In addition, the IOU project reviews are now all conducted using a standard calculation workbook and approach.

**Recommendation 2:** Ensure that participant campuses are aware of M&V activities as early as possible

**PIP page or section:** This recommendation has been incorporated into the Master Institutional PIP sections:

PG&E: Section 6h, EM&V, (p24-25)  
SCG: Sec 6h pg.29-30  
SCE: Section 5.6.a.ii (p472-473)  
SDG&E: page 62, section "EM&V"

**Response:** The IOUs will provide campuses with verbal and written notices that EM&V activities will occur and may affect specific projects. The IOUs will also provide introductions and contact information between evaluators and the proper campus contacts.

**Recommendation 3:** Clearly differentiate between gross and peak demand savings

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 6 a, ii, Quality Assurance and Evaluation Activities (p. 56)  
SCG: N/A  
SCE: Section 5.4.c (p461)  
SDG&E: page 60-61, section "Quality Assurance & Evaluation Activities"

**Response:** The IOUs have updated both the program manual and the project applications to specifically define the methodology for determining peak demand. IOU due diligence reviewers are also using this methodology.

**Recommendation 4:** Improve project tracking systems

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 6c, Best Practices (p22)  
SCG: Sec 6c pg.28  
SCE: Section 5.4.c (p461)  
SDG&E: page 46-47, section "Best Practices"

**Response:** The IOUs have implemented a new tracking tool for the UC/CSU Partnership called P6. This tool is used to track and update project schedules according to predetermined milestones that are consistent among all IOUs. The system also retains savings estimates and project costs at distinct points throughout the project lifecycle, as well as proposed, approved and paid incentives.

**Recommendation 5:** Provide more opportunities to exchange information and expand training and education (T&E) participation

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Institutional Master, Section 5c, Program Design to Overcome Barriers (p14)

SCG: Sec 6b pg.23-27

SCE: Section 5.6.a.ii (p470)

SDG&E: page 25-26, section "Outreach, Education and Training Element"

**Response:** The IOUs have set aside funds in the training and education portion of the program for best practice write ups and publicizing these practices with the partners. Additionally, best practices are shared during the CA Higher Education Sustainability Conference through poster sessions and presentations.

### ***Government Partners Program – Direct Impact Evaluation (PG&E)***

PG&E has evaluated the recommendations from the impact evaluation *Government Partnerships Programs Direct Impact Evaluation Report*, study ID CPU0023.01, conducted by Summit Blue. The recommendations below have been or will be integrated into the PGE2126, Institutional Partnerships PIP, as described below.

**Recommendation 1:** Provide more project detail in tracking system.

**PIP page or section:** This has been incorporated into PIP Section 5, Program Rationale and Expected Outcomes (p.62)

**Response:** The CCC project database tracks projects at the measure-level. This allows for detailed tracking of measures and the ability to roll-up tracking and reporting at a higher summary project level. Individuals responsible for data entry have been trained to more accurately describe projects to avoid vague naming conventions. In addition, the website has a document repository that holds all applications and detailed review documents for each project.

**Recommendation 2:** Use criteria in assessing CCC projects that recognize unique features of planning at CC campuses.

**PIP page or section:** This recommendation has been incorporated into PIP Section 5c, Program Design to Overcome Barriers, (p.67).

**Response:** Projects with long completion schedules or where scope changes have occurred have either been broken up into smaller projects or have rolled into the following program cycle.

**Recommendation 3:** Improve accuracy of ex ante lighting operating hours estimates.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** Continuous improvement of project development efforts at campuses and IOU due diligence review processes will focus on operating hours and equipment run-times.

**Recommendation 4:** Standardize participant data requirements.

**PIP page or section:** This recommendation has been incorporated into the PIP section 6a, Statewide IOU Coordination (p56).

**Response:** The partnership has implemented a new tracking tool called P6. This tool is used to track and update project schedules according to predetermined milestones that are consistent among all IOUs. It also retains savings estimates at distinct points throughout the project lifecycle, as well as proposed, approved and paid incentives.

**Recommendation 5:** Ensure that participant campuses are aware of M&V activities as early as possible.

**PIP page or section:** This recommendation has been incorporated into the Master Institutional PIP, Section 6h, EM&V, (p24-25)

**Response:** IOUs will provide campuses with verbal and written notices that EM&V activities will occur and may affect specific projects. The IOUs will also provide introductions and contact information between evaluators and proper campus contacts

**Recommendation 6:** Clearly differentiate between gross and peak demand savings.

**PIP page or section:** This recommendation has been incorporated into PIP section 6 a, ii, Quality Assurance and Evaluation Activities (p. 56)

**Response:** Both the program manual and the project applications have been updated to specifically define the methodology for determining peak demand. Due diligence reviewers are also using this methodology.

**Recommendation 8:** Provide more opportunities to exchange information and expand T&E participation.

**PIP page or section:** This recommendation has been incorporated into the Institutional Master PIP, section 5c, Program Design to Overcome Barriers (p14)

**Response:** In the training and education portion of the program, funds have been set aside for best practice write ups and publicizing these practices with the partners. Additionally, best practices are shared during the CA Higher Education Sustainability Conference through poster sessions and presentations

**Recommendation 9:** Be more conservative in estimating savings.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** PG&E continually adjusts our energy calculations based on the best available to ensure that estimates are unbiased and conservative.

### ***Government Partners Program – Non-Resource Elements (PG&E)***

The IOUs have discussed and evaluated the recommendations from the impact evaluation, *Effectiveness and Impacts for Non-Resource Elements of the 2006-2008 Government Partnerships Programs*, CPU0022.01 conducted by Summit Blue. The recommendations below have been or will be integrated them into the PGE2126 Institutional Partnerships PIP, as described below.

**Recommendation 1:** Establish a system to effectively track customers, services, and information disseminated to program participants.

**PIP page or section:** This recommendation has been incorporated into PIP section 6c, Best Practices, (p. 22)

**Response:** All LGP program implementers have developed basic customer tracking systems. This best practice was identified in the Direct Install Assessment Report (in compliance with D.09-09-047) and documented in the Program Management Plan (PMP) for each LGP. Per the Direct Install Assessment, program implementers will be encouraged to enhance their existing tracking systems to incorporate a comprehensive checklist and customer questionnaire to identify additional measures that can be referred to other PG&E energy efficiency, demand response, and distributed generation programs. With support from an LGP-wide cross-program training and referral tracking system, these enhanced customer tracking systems will help aggregate energy saving opportunities at any given business.

**Recommendation 2:** Provide audit leave-behind materials and/or reports of recommendations made for program participants.

**PIP page or section:** This recommendation is highlighted in the PMP for each LGP.

**Response:** LGP program implementers will continue to be encouraged to provide leave-behind materials and recommendations. This best practice was identified in the Direct Install Assessment Report (in compliance with D.09-09-047) and highlighted in the Program Management Plan (PMP) for each LGP.

**Recommendation 3:** Encourage a program design that includes a more in-depth audit experience for participants.

**PIP page or section:** This recommendation is highlighted in the PMP for each LGP.

**Response:** LGP program implementers have been encouraged to enhance the audit process and auditor training to provide a more comprehensive and in-depth experience.

**Recommendation 4:** Follow up with customers after the audit, reinforcing the messages provided through the audit and providing an opportunity for the program to address any questions.

**PIP page or section:** This recommendation is highlighted in the PMP for each LGP.

**Response:** LGP program implementers will continue to be encouraged to follow-up with customers after an audit. This best practice was identified in the Direct Install Assessment Report (in compliance with D.09-09-047) and highlighted in the Program Management Plan (PMP) for each LGP.

**Recommendation 5:** Ensure that auditors have proper training to provide audits effectively.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response** LGP program implementers will be directed to enhance existing auditor training procedures by incorporating educational resources available through PG&E energy training centers. Additionally, LGP implementers will continue to be encouraged to hire from PG&E PowerPathways training program.

**Recommendation 6:** Trainings should continue to accompany changes in codes and standards to make sure the codes and standards changes are properly understood, implemented and enforced in order to realize the expected energy savings. The Title 24 survey results demonstrate the importance of training on codes and standards.

**PIP page or section:** This recommendation is incorporated into PIP section 6bii, Codes and Standards Program, p. 20.

**Response:** LGP program implementers will work closely with the Codes and Standards team to coordinate and promote up-to-date and timely training sessions. Many of these sessions have already been scheduled throughout the PG&E territory in 2010 and will continue to be provided throughout the program cycle.

**Recommendation 7:** In general, the team recommends that training workshops continue to be part of program and portfolio offerings in California as they are resulting in energy savings even though they can be difficult to quantify. The trainings are having a definite impact on program savings, both in terms of directing customers to the program and making customers and market actors aware of the availability of energy efficiency opportunities.

**PIP page or section:** This recommendation is incorporated into PIP section 6biii, WE&T efforts, p. 20.

**Response:** Training and education is a key component for Local Government Partnerships. Local training sessions provide the greatest impact to the community.

**Recommendation 9:** Standardize tracking of training program participation across local government partnerships. Standardization of a tracking system to record attendees as well as methods of marketing, exit survey results, and training materials used would assist in a more robust evaluation. Consistent capture of information such as contact information, company name, title, and role would greatly improve sampling and analysis opportunities that could in turn help quantify more savings benefits from training workshop efforts.

**PIP page or section:** This recommendation is too detailed for inclusion in the PIP.

**Response:** Training sessions track participant information.

**Recommendation 13:** Ensure that referrals are documented, specific, direct and targeted to the customer. This encourages higher participation rates, as the program is pertinent to the participant's needs.

**PIP page or section:** This recommendation is highlighted in the PMP for each LGP.

**Response:** Each LGP is encouraged to support Core program coordination and referrals. As documented in the PMPS, LGPs will ensure that the most cost-effective and beneficial services are provided to customers. Each LGP program implementer has been asked to document their referrals.

**Recommendation 16:** Place importance on increasing the collaboration and cooperation between the CPUC, utility managers, and program managers, especially when it comes to improving data tracking and measurement processes that are needed to document performance and enable evaluation.

**PIP page or section:** This recommendation is out of scope of the PIP.

**Response:** Program managers and CPUC will continue to work collaboratively to develop a consistent understanding of program offerings, metrics, and data tracking.

**Recommendation 18:** Establish protocols for future non-resource elements regarding the types of data to be collected and retained (i.e., participant contact information, recommendations, etc.) to improve performance tracking and enable evaluation processes.

**PIP page or section:** This recommendation could be incorporated into PIP section, 6bVI, Non-energy activities of the program.

**Response:** Non-resource activities (including training/education, strategic plan activities, and audits) will be tracked by LGPs and PG&E program managers

**Recommendation 20:** Conduct internal workshops to share information regionally, or state-wide, with LGP and IOU staff. This will be a useful tool in the development of the above metrics, tracking systems, and protocols.

**PIP page or section:** This recommendation could be incorporated into PIP section 6c, Best Practices

**Response:** IOUs will leverage the Statewide Coordinator and the Statewide Energy Efficiency Collaboration (collaboration between IOUs, ICLEI, ILG and LGC) to develop workshops, webcasts, web postings, and best practice white papers.

**Recommendation 21:** Develop and inform LGP program designers of best practices non-resource element case studies through additional research. These will be useful in establishing the most effective means of delivering these programs to customers.

**PIP page or section:** This recommendation could be incorporated into PIP section 6c, Best Practices

**Response:** IOUs will leverage the Statewide Coordinator and the Statewide Energy Efficiency Collaboration (collaboration between IOUs, ICLEI, ILG and LGC) to develop workshops, webcasts, web postings, and best practice white papers.

### ***Government Partners Program – Non-Resource Elements (SCE)***

The investor-owned utilities (IOUs) have discussed and evaluated the recommendations from the impact evaluation Government Partnership Programs, Effectiveness and Impacts for Non-Resource Elements of the 2006-2008 Government Partnerships Programs conducted by Summit Blue Consulting, LLC. The recommendations below have been or will be integrated into the Energy Leader Partnership PIP, as described below.

**Recommendation 1:** Develop a standardized tracking system to be used across LGPS to accurately and consistently capture energy savings across element types. Due to the lack of data, programs are not able to estimate the appropriate savings attributable to non-resource elements. By adopting a standardized tracking system, programs will be able to circumvent this

problem and document more energy savings. A detailed table with recommended database inputs is presented in Appendix M, Program Database Tracking System Recommendations (ESR19)

**PIP page or section:** Not addressed in PIP

**Response:** In response to this recommendation, SCE Partnerships is utilizing a centralized database to capture program data. Non-Resource tracking and measurement is still under review.

**Recommendation 2:** Place importance on increasing the collaboration and cooperation between the CPUC, utility managers, and program managers, especially when it comes to improving data tracking and measurement processes that are needed to document performance and enable evaluation. (ESR20)

**PIP page or section:** Not addressed in PIP

**Response:** In response to this recommendation, SCE Partnerships is utilizing a centralized database to capture program data. Non-Resource tracking and measurement is still under review.

**Recommendation 5:** Conduct internal workshops to share information regionally, or state-wide, with LGP and IOU staff. This will be a useful tool in the development of the above metrics, tracking systems, and protocols. (ESR23)

**PIP page or section:** Page 77-79

**Response:** In response to this recommendation, the statewide IOUs are implementing the best practices NGO work during 2010-12 in addition to the SW Best Practices coordinator work which will include best practices seminars, conferences and Webinars.

**Recommendation 6:** Develop and inform LGP program designers of best practices non-resource element case studies through additional research. These will be useful in establishing the most effective means of delivering these programs to customers. (ESR24)

**PIP page or section:** Page 77-79

**Response:** In response to this recommendation, the statewide IOUs are implementing the best practices NGO work during 2010-12 in addition to the SW Best Practices coordinator work which will include best practices seminars, conferences and Webinars.

## **Process Evaluations**

### ***CCC IOU EE Program (Statewide)***

The IOUs have discussed and evaluated the recommendations from the following process evaluation reports conducted by Summit Blue Consulting and PA Consulting:

- SCE Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs— Final Report;
- PG&E Summary Report: Process Evaluation of the 2006–2008 Statewide Partnership Programs;
- SCG Final Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs;

- SDG&E Final Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs
- Effectiveness and Impacts for Non-Resource Elements of the 2006-2008 Government Partnerships Programs

The recommendations below have been or will be integrated them into each IOU's CCC/IOU Energy Efficiency Partnership Program PIP, as described below.

**Recommendation 2:** Consider individual program needs and differences when allocating resources

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

PG&E: Section 5, Program Rationale and Expected Outcomes, (p62)

SCG: Sec 4 pg.23

SCE: Section 5a.6.a.ii (p363-364)

SDG&E: page 36-37, section "Program Design to Overcome Barriers"

**Response:** Although the statewide partnerships strive for consistency, the IOUs recognize that the UC/CSU and CCC Partnerships have unique attributes and needs. Regarding this fact, and in response to this recommendation, the IOUs have tailored the individual partnerships to accommodate these differences.

**Recommendation 3:** Communicate regularly and provide consistent and timely feedback

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

PG&E: Section 5, Program Rationale and Expected Outcomes, (p62)

SCG: Sec 6 pg. 25-26

SCE: Section 5a.6.a.ii (p362)

SDG&E: page 27-28, section "Program Management Structure"

**Response:** The Partnership Management Team, consisting of the IOUs, CCC Chancellor's office, and campus representatives, will continue to meet on a monthly basis to discuss program issues and make decisions. The Partnership Outreach Team will also continue to meet on a regular basis as a group, and hold several smaller, more focused meetings as needed. In addition, the Partnership Executive Team will continue to meet quarterly.

**Recommendation 4:** Develop a tracking system that is usable and accessible between utilities for multi-utility programs and partners and utilities

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

PG&E: Section 5, Program Rationale and Expected Outcomes, (p62)

SCG: I.Sub PIP-CCC Sec 6c pg.44

SCE: Section 5a.4.c (p353)

SDG&E: page 46-47, section "Best Practices"

**Response:** The IOUs will continue to track projects in an online database that is accessible to all partners, campuses, and IOUs representatives. This database is used to track and update project schedules compared to a baseline using predetermined milestones consistent among all IOUs. The database tracks proposed and achieved energy savings and incentives throughout the project lifecycle.



**Recommendation 5:** Clearly brand each partnership

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

PG&E: Section 5, Program Rationale and Expected Outcomes, (p62)  
SCG: I.Sub PIP-CCC Sec 6.iv. pg.41-42  
SCE: Section 5a.6.a.ii (p363-364)  
SDG&E: page 35-37, section "List non-incentive customer services"

**Response:** The IOUs will continue to disseminate program information documents, marketing materials, and a branding logo specific to the CCC Partnership.

**Recommendation 7:** Designate a single point of contact at utilities for a campus or group of campuses to work with.

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 5c, Program Design to Overcome Barriers (p. 17)  
SCG: Sec 5 pg.18  
SCE: Section 5a.6.a.ii (362)  
SDG&E: page 19, section "Single Point of Contact"

**Response:** The IOUs have assigned account representatives to each campus who are the first point of contact for all utility services and incentive programs.

**Recommendation 8:** Include additional account and/or program management resources.

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 5c Program Design to Overcome Barriers (17)  
SCG: Sec 5 pg.18  
SCE: Section 5a.6.a.ii (362)  
SDG&E: page 19, section "Single Point of Contact"

**Response:** the IOUs have added resources to the account representative and program management pools to better serve this customer.

**Recommendation 9:** Increase overall funding available to Community Colleges to get large-scale participation.

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: not included  
SCG: not included  
SCE: Section 5a.5.e (p360)  
SDG&E: page 35, section "Incentives" and page 38-39 "Program design to overcome barriers"

**Response:** The IOUs will continue to implement their policy of providing incentives for all qualifying projects. If incentive payments exceed published budgets, the IOUs have the flexibility to transfer funding from other programs to fund CCC projects.

**Recommendation 10:** Work with community colleges within each utility service territory to develop and deliver the program's training and education component.

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 5, Program Rationale and Expected Outcome, (p64-66)  
SCG: Sec 4c pg.9  
SCE: Section 5a.6.a.iv (p365)  
SDG&E: page 25-26, section "Outreach, Education and Training Element"

**Response:** SCE and SCG have implemented Green Campus Programs at several campuses. PG&E and SDG&E are working with the IOU Workforce Education & Training initiatives to compliment existing CCC green curriculum programs.

**Recommendation 11:** Provide a peer-to-peer program in which active campuses advise those that have not participated at such high levels.

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 4.2e, Peer-to-Peer Support (p10) and Section 5c (p67)  
SCG: Sec. 6a pg.21  
SCE: Section 5a.6.a.iv (p365)  
SDG&E: page 22, section "Peer-to-Peer Support"

**Response:** Partnership Management Team campus and Chancellor's office representatives will continue to work actively to communicate best practices and to influence under-performing campuses. This communication already occurs through several avenues, including conferences, campus meetings, presentations, and IOU customer events. In addition, the new structure of the Partnership Outreach Team consists of campus and Chancellor's office representatives who will continue to regularly meet with campuses statewide to share best practices and communicate program opportunities and benefits.

**Recommendation 12:** Provide IOU staff to help campuses identify and develop projects.

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 4.3e Technical Assistance (p11) and Section 5c (p67)  
SCG: Sec 6 pg.27-29  
SCE: Section 5a.4.c (p352)  
SDG&E: page 28-29, section "Technical Assistance"

**Response:** The IOUs will continue to offer in-house and subcontracted engineering resources for project development on a case by case basis.

**Recommendation 13:** Streamline the application review process to make it less cumbersome for campuses, while also maintaining quality of information.

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

PG&E: Section 6 ii, Program Delivery Mechanisms (p72)  
SCG: Sec 5 pg.10-11  
SCE: Section 5a.6.ii (p361-362)  
SDG&E: page 29-30, section "Best Practices" and page 42 "Energy Efficiency Retrofits"

**Response:** The IOUs will continue to work with due diligence reviewers and program representatives to communicate to campuses the information necessary for accurate and complete project applications. Bi-weekly meetings will continue to occur between reviewers and program representatives to ensure progress with reviews and address issues with specific projects.

**Recommendation 14:** Include New Construction in Partnership

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 6, Program Delivery Mechanisms, (p72)  
SCG: Sec 4 pg.6  
SCE: Section 5a.5 (p354-355)  
SDG&E: page 42, section "New Construction and New Construction Design Assistance"

**Response:** The IOUs have incorporated a new construction program element into the Partnership. This element is consistent with the existing Savings By Design process.

**Recommendation 15:** Continue to offer training programs

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 6b3, WE&T Efforts, (p20)  
SCG: Sec 6 pg.23-24  
SCE: Section 5a.4.c (p352)  
SDG&E: page 25-26, section "Outreach, Education & Training Element"

**Response:** The IOUs will continue to offer training through IOU Educational Centers. The CCC Partnership is also considering offering Building Operator Certification (BOC) courses to facilities staff.

**Recommendation 17:** Standardize tracking of training program participation across local government partnerships.

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 6h, EM&V, (p24)  
SCG: Sec 6 pg.24  
SCE: Section 5a.6.a.iv (p365)  
SDG&E: page 25-26, section "Outreach, Education & Training Element"

**Response:** The IOUs will continue to consistently document attendance at each training event.

### ***California Department of Corrections and Rehabilitation (CDCR) Program (Statewide)***

The IOUs have discussed and evaluated the recommendations from the process evaluation conducted by PA Consulting Group.

- Pacific Gas and Electric Company (PG&E): Summary Report: Process Evaluation of the 2006-2008 Statewide Partnership Programs (July 31, 2009)
- 06-08 SCE Local Government Inst Partnerships Process Evaluation Report
- Southern California Gas Company (SCG) Final Summary Report: Process Evaluation of the 2006-2008 Local Government and Institutional Partnership Programs (January 2<sup>nd</sup>, 2009)

· San Diego Gas & Electric Final Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs (January 5, 2009)  
The recommendations below have been or will be integrated them into the CDCR PIP, as described below.

**Recommendation 2:** Reconsider the funding cap and payback threshold

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

PG&E: CDCR Sub-PIP, Page 30, Section 6), Program Implementation, a) Statewide IOU Coordination, iii.) Incentive Levels

SCE: CDCR PIP, Page 381, Section 6), Program Implementation, a) Statewide Coordination, iii.) Incentive Levels

SCG: CDCR sub-PIP, page 51, Section 4), Program Description, b) List Measures and CDCR sub-PIP, page 53, Section 6), Program Implementation, a) Statewide IOU Coordination, iii) Incentive Levels

*SDG&E: CDCR sub-PIP, page 51, Section 4), Program Description, b) List Measures and CDCR sub-PIP, page 53, Section 6), Program Implementation, a) Statewide IOU Coordination, iii) Incentive Levels*

**Response:** IOUs **will add** the funding cap information to the PIP. As specifically mentioned in the process evaluation, the funding cap and payback threshold was a temporary control measure in place to minimize risk to the State of California and Partnership until ESCOs could be evaluated. This 'probationary period' is over and the projects are now subject only to requirements of the funding source.

**Recommendation 3:** Be clear about funding sources

**PIP page or section:** PG&E could incorporate this recommendation into 6c, Best Practices, p. 33. SDG&E: Multiple sections (Pages 6-8, 17, 28, and in CDCR sub-PIP pages 50 and 52)

**Response:** This recommendation **has been adopted** by the IOUs. ESCOs attended a kick off meeting for the 2009-11 program (now evolved into bridge and 2010-12) and were briefed on funding sources and the partnership.

**Recommendation 4:** Strengthen individual IOU reporting

**PIP page or section:** Will be addressed in Quarterly Narratives (not in PIP)

**Response:** IOUs **will adopt** by providing additional detail in Quarterly Narratives.

**Recommendation 5:** Pursue individual IOU commitments

**PIP page or section:**

PG&E could incorporate this recommendation into section 4, Program Description, p. 26  
SDG&E: CDCR sub-PIP, page 50, Section 4), Program Description

**Response:** This recommendation **has been adopted** by the IOUs. The Partnership has performed individual goal assessments by IOU and identified individual needs. Having identified gaps early in the program cycle, corrective action project identification is ongoing.

**Recommendation 6:** Reduce cycle time between identifying opportunities and implementing projects.

**PIP page or section:** PG&E could incorporate this recommendation into section 4, Program Description, p. 26, SDG&E : CDCR sub-PIP, page 51, Section 4), Program Description

**Response:** IOUs **have adopted** and brought a program administrator on board (NAM, in early 2006) to improve communications, coordination and technical oversight to reduce the cycle time.

### ***UC/CSU IOU EE Program (Statewide)***

The investor-owned utilities (IOUs) have discussed and evaluated the recommendations from the following process evaluation reports conducted by Summit Blue Consulting and PA Consulting:

- SCE Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs— Final Report;
- PG&E Summary Report: Process Evaluation of the 2006–2008 Statewide Partnership Programs;
- SCG Final Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs;
- SDG&E Final Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs
- Effectiveness and Impacts for Non-Resource Elements of the 2006-2008 Government Partnerships Programs

The IOUs have incorporated or could incorporate the recommendations into the appropriate sections of the UC/USC/IOU EE Partnership SubPIP.

**Recommendation 2:** Consider individual program needs and differences when allocating resources

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

- PG&E: Section 4, Program Description, (p2-3)
- SCG: Sec 4 pg.2-3
- SCE: Section 5.6.a.ii (p471)
- SDG&E: N/A

**Response:** Although the statewide partnerships strive for consistency, the IOUs recognize that the UC/CSU and CCC Partnerships have unique attributes and needs. Regarding this fact, and in response to this recommendation, the IOUs have tailored the individual partnerships to accommodate these differences.

**Recommendation 3:** Communicate regularly and provide consistent and timely feedback

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

- PG&E: Section 4, Program Description (p47)
- SCG: Sec 6 pg.25-26
- SCE: Section 5.6.a.ii (p468)
- SDG&E: N/A

**Response:** The Partnership Management Team will continue to meet every three weeks, and on off-weeks at the same frequency, hold regular Project Status Calls with partners and IOUs to discuss specific projects and assign follow-up, if needed. In addition, every UC campus will

continue to receive a bi-monthly goal achievement report. The Partnership Executive Team continues to meet quarterly.

**Recommendation 4:** Develop a tracking system that is usable and accessible between utilities for multi-utility programs and partners and utilities

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

PG&E: Section 6, Program Implementation (p56)  
SCG: Sec 6.b.v pg.25  
SCE: Section 5.4.c (p461)  
SDG&E: N/A

**Response:** IOUs have implemented a new tracking tool for the UC/CSU Partnership called P6. This tool is used to track and update project schedules according to predetermined milestones that are consistent among all IOUs. The system also retains savings estimates and project costs at distinct points throughout the project lifecycle, as well as proposed, approved and paid incentives.

**Recommendation 5:** Clearly brand each partnership

**PIP page or section:** This recommendation could be incorporated into the following PIP sections:

PG&E: Institutional Master, Section 4, Program Description (p2-3)  
SCG: III. Sub PIP-UC/CSU 6.iv. Pg.59  
SCE: Section 5.6.a.ii (p471)  
SDG&E: page 61, section iv "Marketing and Outreach Plans"

**Response:** IOUs will continue to disseminate program information documents and marketing materials specific to the UC/CSU partnership.

**Recommendation 6:** Increase training opportunities, specifically specialized trainings tailored to needs of individual campuses/proprietary systems

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 4c Non-incentive customer services (p49)  
SCG: Sec 4c pg.9  
SCE: Section 5.6.a.ii (p470)  
SDG&E: page 61, section iv "Marketing and Outreach Plans"

**Response:** The Partnership T&E Team will continue to plan, amount its other offerings, a program for advanced controls systems training for groups of campuses with the same controls systems.

**Recommendation 8:** Provide engineering assistance for preliminary project development

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Institutional Master Section 4.3e Technical Assistance (p11) and Section 5c (p15)  
SCG: Sec 6 pg.27-29  
SCE: Section 5.4.c (p459-461)  
SDG&E: N/A

**Response:** The IOUs will continue to offer in-house and subcontracted engineering resources for project development on a case by case basis.

**Recommendation 9:** Streamline the application review process to make it less cumbersome for campuses, while also maintaining quality of information

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 5c, Program Design to Overcome Barriers (p54)  
SCG: Sec 6 pg.26  
SCE: Section 5.6.a.ii (p467-468)  
SDG&E: N/A

**Response:** The IOUs will continue to work with due diligence reviewers and program representatives to communicate to campuses the information necessary for accurate and complete project applications. Bi-weekly meetings will continue to occur between reviewers and program representatives to ensure progress with reviews and address issues with specific projects.

**Recommendation 10:** Include New Construction in Partnership

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Institutional Master, Section 4.1c, New Construction and Design Assistance (p7)  
SCG: Sec 4 pg.6  
SCE: Section 5.5.d (p466)  
SDG&E: page 6, section "New Construction and Design Assistance"

**Response:** The IOUs have incorporated a new construction program element into the Partnership. This element is consistent with the existing Savings By Design process.

**Recommendation 11:** Designate a single point of contact between campuses and program management

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Institutional Master, Section 5c, Program Design to Overcome Barriers, (p17)  
SCG: Sec 5 pg.18  
SCE: Section 5.6.a.ii (p468)  
SDG&E: N/A

**Response:** The IOUs have assigned account representatives to each campus who are the first point of contact for all utility services and incentive programs.

**Recommendation 12:** Continue to offer training programs

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Section 4c, Non-incentive Customer Services (p49)  
SCG: Sec 4c pg.9  
SCE: Section 5.6.a.ii (p470)  
SDG&E: page 25-26, section "Outreach, Education and Training Element"

**Response:** The IOUs will continue to offer Building Operator Certification (BOC) courses, LEED EBO&M courses, and lab efficiency workshops through the T&E component of the Partnership. Additional training will also continue to be available through IOU Educational Centers

**Recommendation 14:** Standardize tracking of training program participation across local government partnerships

**PIP page or section:** This recommendation has been incorporated into the following PIP sections:

PG&E: Institutional Master, Section 6h, EM&V (p23-24)

SCG: Sec 6 pg.24

SCE: Section 5.6.a.ii (p470)

SDG&E: page 25-26, section "Outreach, Education and Training Element"

**Response:** The IOUs will continue to consistently document attendance at each training event.

***PGE2000 Mass Markets Program - Local Governments Partners (LGP) (PG&E)***

PG&E has evaluated the recommendations from the process evaluation, *2006–2008 PG&E Mass Markets, Program Portfolio and CFL, Swimming Pool Market Characterizations*, study ID PGE0282.01, conducted by KEMA. The recommendations below have been or will be integrated them into the PGE2125, Local Government Partnership Master.

**Recommendation 14:** Going forward, the Local Government Partnership (LGP) program needs to strike an appropriate balance between achieving immediate energy savings and meeting the program's long-term strategic objectives.

**PIP page or section:** TBD

**Response:** PG&E has lowered its 2010-2012 LGP Program cost-effectiveness targets and developed incentives that encourage installation of a broader mix of measures. In addition, through the Innovator Pilot program, PG&E is explicitly encouraging innovative program strategies for 2020-2012. These activities will not be subject to energy savings claims and are intended to meet the long-term objectives of the LGP as depicted by the state's Strategic Plan. Further, the IOUs have designated specific strategic plan budgets for each partner, and each partner has selected to implement strategic plan measures from a menu of options. PG&E will work with its partners to help them meet their milestones, with support from the statewide partnerships coordinator.

**Recommendation 15:** PG&E and the California Public Utilities Commission should track and monitor program strategies that are designed to yield long-term benefits and in line with the Strategic Plan.

**PIP page or section:** TBD

**Response:** PG&E is working with the CPUC to develop a tracking system for long-term energy savings accomplishments. As noted above, PG&E will also work with individual government partners to achieve progress against specific strategic plan milestones.

**Recommendation 16:** Balance the program's objectives when establishing new partnerships and determining how they will be implemented, to ensure that the program meets its short-term energy savings goals while effectively engaging the local government to achieve its long-term strategic objectives.



**PIP page or section:** TBD

**Response:** When considering new partnerships, PG&E will assess the level of engagement of the local government on energy efficiency issues and its ability to take on administrative functions. These considerations in turn inform the partnership's implementation model and geographic coverage.

**Recommendation 17:** Ensure that the 2009-2011 contract process does not adversely affect delivery of program services due to lengthy delays and excessive administrative requirements on implementers. Set up 2009-2011 contracts to provide flexibility to make mid-course corrections in program implementation to maximize program success.

**PIP page or section:** TBD

**Response:** PG&E's 2010-2012 contracts allow much greater flexibility for implementers to make mid-course changes to improve programs.

**Recommendation 25:** Add progress reporting (beyond counting of energy savings by measure) to the 2009-2011 contracts to monitor the successes and challenges of each program strategy. Determine whether PG&E's administrative infrastructure that supports the LGP Program is sufficient to accomplish its priorities and make improvements if warranted (e.g., add staff, update IT systems).

**PIP page or section:** TBD

**Response:** PG&E will track measures and customers more closely in the 2010-2012 program period in order to ensure broader customer and measure treatment. PG&E has added some strategic senior staff to the LGP group, as well as some program support staff. PG&E has also been working on process improvements to streamline operations, which should help improve program implementation. Finally, PG&E has streamlined its data request process, assigning one individual to process external requests and standardizing its process for addressing data requests.

## Appendix A: Complete IOU Responses to EM&V Recommendations

### Residential

- Upstream Lighting Program
- Mass Markets – CFLs
- Appliance Recycling Program
- Home Energy Efficiency Rebates
- Multi-Family Energy Efficiency Rebates
- Comprehensive Mobile Home Program
- Home Energy Efficiency Surveys
- Business and Consumer Electronics
- Whole House and Comprehensive Home Performance
- Community Language Energy Outreach (SCE)

### Commercial

- Major Commercial Facilities
- Industrial and Agriculture (Southern California)
- Business Incentives and Services (SCE)
- Retro commissioning
- High Tech Facilities (PG&E)
- Medical Facilities (PG&E)

### Agricultural and Food Processing

### Industrial

### New Construction

- California Advanced Homes Program
- Savings By Design

### HVAC

- High Impact Measures and Specialized Commercial
- Comprehensive Packaged Air Conditioning Systems (CPACS)
- Mass Markets – HVAC

### Codes and Standards

### Emerging Technologies

### Workforce Education and Training

- Workforce Education and Training Program
- Building Operators Certification (BOC)
- Education and Training
- Food Services Technology Center
- Technology and Testing Center (TTC)
- Mobile Energy Unit (MEU)
- Engineering Design Resource Program (EDR)

Marketing, Education and Outreach

Institutional Partners

California Community Colleges

California Department of Correction and Rehabilitation CDCR

University of California – California State Universities UC-CSU

Government Partners

Local Government Partners