

ATTACHMENT B
SOUTHERN CALIFORNIA GAS COMPANY'S RESPONSE TO
RULING ATTACHMENT A: UTILITIES AND
A.3. SPECIFIC QUESTIONS FOR SOCALGAS

Responses to Attachment A: Utilities

1. Questions for All Utilities

Funding Sources for 2013-2014 Programs Budgets

- Please fill out the following table, with actual data as of July 2, 2012, unless otherwise indicated. Unspent funding means both unspent and uncommitted as of that date.

Category	Electric PGC funds	Electric Procurement funds	Natural Gas PPP Funds	Total
EM&V Funds				
Projected unspent 2012 funds, 7/2/12-12/31/12 *			\$349,897	
Unspent 2010-2012				
Unspent 2009				
Unspent 2006-2008				
Unspent 1998-2005				
Subtotal Unspent EM&V Funds			\$349,897	
Program Funds				
Projected unspent 2012 funds, 7/2/12-12/31/12 *			\$126,487,477	
Unspent 2010-2012				
Unspent 2009				
Unspent 2006-2008				
Unspent 1998-2005				
Subtotal Unspent Program Funds			\$126,487,477	

* Represents cumulative totals.

SCG response to Q1:

Please see amounts shown in the Table provided for this data request.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Please note that SoCalGas does not differentiate unspent funds, including accumulated interest, separately by program cycle.

To provide additional information, please see the following data reflecting ending balances for Energy Efficiency program cycles. The values shown include both program and EM&V funds, but do not reflect accrued interest on the amounts that are included in the values that are reflected in the cumulative total in the table above.

2006 – 2008 cycle: (\$38,484,817)
2004 – 2005 cycle: (\$3,945,236)
1997 – 2003 cycle: \$130,818
1994 – 1996 cycle: (\$4,187,157)

Also note for program funds, the value shown reflects actual data as of July 2, and thus differs from amounts shown in SoCalGas Table 6.2a, which represented the information available at the time of the July 2 filing (using actual data recorded through April, 2012).

Unspent / Uncommitted program carryover funds were estimated at (\$121,142,326).

Residential Programs

2. Explain and justify the rationale for changing the name of the Energy Upgrade California (EUC) program to the Whole House Upgrade Program, in light of Commission direction for statewide ME&O utilization of the EUC brand beginning in 2013. How will this improve customer understanding and program uptake?

SCG response to Q2:

The “Whole Home Upgrade” program name was submitted in the application as a placeholder for and point of differentiation between what is considered the old program/brand and what will become the new statewide brand for “energy efficiency, demand response, dynamic rate options, enabling technologies, climate change impacts, the Energy Savings Assistance Program (low-income energy efficiency program), distribution generation, smart grid upgrades and other general impacts of energy use for individuals or the state as a whole.”¹ With A.12-08-010, the application for Statewide Marketing, Education and Outreach (SW MEO), the IOUs were directed to describe this transition, from a

¹ D.12-05-015, OP 117,a.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

single program to a larger brand that will “provide general energy education and demand-side management program information for residential and small commercial customers.”²

As described in A.12-08-010, “The most critical aspect of the brand transition of Energy Upgrade California from a single energy efficiency program to a Statewide brand that serves all energy management programs... is the brand assessment to be conducted on the existing brand of EUC (the program.)”³ We further explain that “In the statewide program implementation plan (PIP) for the CalSPREE program... the IOUs have already reflected a name change to the ‘Whole Home Upgrade Program.’ This name change would be enacted only if the brand assessment determines that this is the correct path for the program brand as well as the statewide brand.”⁴

3. Describe the proposed Whole House Upgrade Program contractor training objectives in detail for 2013-2014, including specific training objectives and targets for contractor enrollment and/or technician trainings per IOU.
 - a. Indicate where objectives draw from evaluation reports or other review work performed on the existing program.
 - b. Discuss strategies for targeting minority, low-income, or disadvantaged populations for training.

SCG response to Q3:

- a. There are several key contractor training objectives for the statewide Whole House Upgrade Program (WHUP) that have been developed from draft evaluation recommendations, in field quality control (QC) findings, Quality Assurance (QA) desktop review deficiencies and contractor feedback. These training objectives are in addition to the robust existing training courses available through the utility’s training centers and workforce education and training efforts.

² D.12-05-015, OP 117,a.

³ A.12-08-010, Ch.3, pg. OV-17.

⁴ A.12-08-010, Ch.3, pg. OV-18

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

While the *2010–2012 PG&E and SCE/SoCalGas Whole-House Process Evaluation Report-Draft (Presented May 1, 2012, updated August 28, 2012)* report (Process Eval-Training) is not final and only assesses Southern California Edison’s (SCE) training related to WHUP, the other utilities are integrating relevant observations into their training curriculums.

1. Improve the quality of contractor diagnostic testing and measure installations (related to Process Eval-Training). The success of efforts to meet this objective will be measured by tracking the number and type of failures and deficiencies identified during in-field QC. This objective will be achieved through:

- a. Increasing technical hands-on training to increase the quality of diagnostic testing and measure installations in the program. The technical training will focus on combustion safety testing, diagnostic testing techniques, best practices for installing measures and other areas of need identified through the program. These efforts are currently underway and will expand and evolve as the program’s needs change.
- b. Broadening awareness and participation in field mentoring. The utilities strongly encourage new enrollees and newly hired technicians to utilize the mentoring program. These mentoring sessions can be on test-in, test-out or any time during an upgrade. While these mentoring sessions are extremely beneficial, they are underutilized. To address this, the utilities are highlighting the availability of mentoring in participation workshops, simplifying the mentoring process and increasing the availability of these services.

2. Increase contractor and rater sales and marketing skills (related to Process Eval-Training). The success of this effort will be measured by tracking the increase in jobs from training participants. This objective will be achieved through:

- a. Creating or expanding marketing and sales training for participating contractors and raters. This training will provide best

practices for marketing home performance and detail the sales tools available to participants.

- b. Highlighting resources and support available to participants. This includes collateral material such as fliers and door hangers in addition to helping participants optimize their online profiles on the statewide website.
3. **Increase accuracy and consistency of job submissions and energy modeling** (related to Process Eval-Training). The success of this effort will be measured by tracking the number of rejected and resubmitted jobs. This objective will be achieved through:
- a. Increasing the amount and availability of job submission and EnergyPro energy modeling training.
 - b. Expand mentoring and support available to participants to assist with job submissions and energy modeling.
 - c. Ensuring participation workshops and onboarding adequately educate new participants about available resources and tools.
- b. The WHUP program training is primarily focused on the on-boarding process for eligible contractors and their technicians, and augmenting skills of participating contractors. These training strategies, as detailed in the response to question 3.a. above, focus on improving the technical, administrative and sales skills to drive success in the WHUP program. This augments existing workforce education and training programs offered through the utilities and the energy training centers.

2010–2012 PG&E and SCE/SoCalGas Whole-House Process Evaluation Report-Draft (Presented May 1, 2012, updated August 28,2012) report found the number of individuals with active BPI certifications grew dramatically between January 1, 2010 and November 1, 2011. Total active certified individuals grew from 65 to 1,596. The number of certifications (individuals may have more than one type of BPI certification) grew from 88 to 2,349.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

This demonstrates that there is a substantial number of trained individuals in California. Rather than additional training for new providers, SoCalGas instead believes focus should be on driving demand to help maintain employment of these already certified individuals.

The majority of upgrades are performed by 20% of the contractors enrolled in the utility programs. Based on this, and the dwindling number of new enrollments, the utilities are shifting focus from recruiting new contractors to supporting and strengthening the existing participants. The remaining contractor recruitment is focused on firms with business models that have demonstrated success in transformation to home performance, such as HVAC contractors.

Please see the Attachment file “ACR Scoping Memo Data Request Q3, Attachment 1.pdf.” to this data request for a copy of the 2010–2012 PG&E and SCE/SoCalGas Whole-House Process Evaluation Report-Draft (Presented May 1, 2012, updated August 28, 2012). To be able to access a live version of the document, SoCalGas has posted the live document on its external website at:

<http://www.socalgas.com/regulatory/A1207003.shtml>.

4. Explain why the utilities have inconsistent on-site verification QA/QC requirements for the proposed Whole House Upgrade Program. Provide one document with each IOU’s desk and on-site QA/QC requirements.

SCG response to Q4:

The QA and QC requirements were designed to reflect processes built into the different utilities IT and program infrastructure. The development of the QA and QC procedures and specifications were done separately as a result of each utility launching their program at a different time. Additionally, each individual utility may have a slightly different internal requirement related to in-field verification percentages, savings validation, corrective actions, and safety requirements. Please see the data request EEGA 1864 for the statewide comparison of QA/QC requirements.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Please see Attachment files (listed below) to this data request for desk and on-site QA/QC requirements. To be able to access a live version of the document, SoCalGas has posted the live document on its external website at: <http://www.socalgas.com/regulatory/A1207003.shtml>. *Note that certain files as marked are CONFIDENTIAL and provided pursuant to Public Utilities Code § 583 and General Order 66-C.*

Attachment filenames:

- ACR Scoping Memo Data Request Q4, Attachment 1.pdf. [Confidential]
- ACR Scoping Memo Data Request Q4, Attachment 2.pdf.
- ACR Scoping Memo Data Request Q4, Attachment 3.pdf. [Confidential]
- ACR Scoping Memo Data Request Q4, Attachment 4.pdf.
- ACR Scoping Memo Data Request Q4, Attachment 5.pdf. [Confidential]

5. Explain why the utilities have inconsistent eligibility requirements for the Middle Income Direct Install program (OP 58). (PG&E’s eligibility rules target 201-400% of federal poverty guidelines, while others seem to have much more restrictive requirements).

SCG response to Q5:

Each IOU has taken a slightly different approach, but share common implementation goals for the MIDI program, as described below. The IOUs believe the variation is desirable to accommodate regional needs to best support this program.

The 2010-2012 EE Decision 09-09-047 provided the IOUs with authority to launch MIDI program components, but did not prescribe specific eligibility requirements. As such, during the 2010-2012 program cycle, SDG&E and PG&E each launched MIDI with different visions of how MIDI fits into the overall structure of residential offerings in order to best suit the needs of their respective regions. For SDG&E and PG&E, the proposed MIDI offerings are proposed as continuing components of the MIDI offerings currently being implemented in the 2010-2012 cycle.

SCE and SoCalGas propose to launch a similar MIDI program to PG&E’s, leveraging the infrastructure of the Energy Savings Assistance Program (ESAP),

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

in the 2013-2014 transitional cycle. SDG&E does not view the MIDI as an extension of ESAP but as a bridge between ESAP comprehensive direct install measures and customer incentive programs, and offers a suite of direct install of EUC Basic Path measures and education for customers regarding pathways that would enable them to participate in the EUC Advance Path.

The 2013-2014 EE Guidance Decision 12-05-015 also did not order a prescriptive approach for a statewide MIDI component for the residential sector. The IOUs consider that a regional approach is most appropriate for this segment and therefore have proposed local MIDI components that best suit their individual regional needs. Based on analysis performed by SoCalGas, the 2013 – 14 target goals can be met by customers within its service territory who meet the proposed eligibility levels within the single and multi-family market segment. This group represents a significant population with the smallest percentage of disposable income which would not be spent on energy efficiency.

With regards to income eligibility requirements, it is important to note the difference between eligible customers and targeted customers. By its nature, the moderate income population is a very large segment of customers, and the IOUs are sensitive to potential oversubscription while also balancing the need to serve this large segment.

Each IOU has taken a slightly different approach but have a common goal of *targeting* those customers just above the ESAP eligibility requirement ($\leq 200\%$ of federal poverty guidelines), and expanding the eligibility requirements to allow service to a broader range of customers within this segment, while still balancing the need to not oversubscribe free services to a very large customer segment.

6. For the Middle Income Direct Install program, provide:
 - a. Eligibility requirements
 - b. Number of households that would be eligible to participation in the proposed program
 - c. Analysis conducted to determine proposed eligibility requirements, including but not limited to the effects of these requirements on numbers of potentially participating households, and potential costs of the program based on these projects. In other words, explain why your

utility selected the eligibility approach selected, and whether this increased or decreased the number of participating households, etc.

- d. Targets for participation in 2013-2014
- e. Budget for 2013-2014
- f. Estimated savings for 2013-2014.

SCG response to Q6:

- a. SoCalGas (SCG) Middle Income Direct Install (MIDI) program requirements include:
 - Meet 201% - 250% Federal Poverty Guidelines
 - SoCalGas Customer
 - ESAP Minimum Measure Requirements
 - No Categorical Eligibility
- b. There are approximately 440,911 eligible households for the SCG service territory as reflected in the 2011 LIEE annual report.
- c. SCG is seeking to leverage the infrastructure of the Energy Savings Assistance Program (ESAP), in the 2013-2014 transitional cycle. ESAP has an existing income program qualifying process, and frequent customers just over the 200% of federal poverty eligibility requirement on a regular basis. Therefore, SCG is seeking to take advantage of these opportunities by offering the MIDI program to these customers who otherwise would not be served under ESAP.

The measures offered under the MIDI program will be a subset of the ESAP offerings. The program must balance the need to deliver program cost effectiveness in determining target size and budget to allocate to this effort.

- d. 2,000 total homes (See p. 428 of the 2013/2014-PIP).
- e. Total program budget is \$2,000,000. (Also see SCG Data Request EEGA 2208, sent on August 8, 2012.)

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- f. 44,000 Therms (Also see SCG Data Request EEGA 2208, sent on August 8, 2012.)

- 7. For the Energy Upgrade California – Whole Home Upgrade Program, Multifamily Path, provide a more detailed or augmented PIP, with more detail in at least the following areas:
 - a. budget and savings placemats.
 - b. “per building” or “per dwelling unit” tiered incentive structure.

SCG response to Q7:

- a. The WHUP Multifamily Path budget and savings estimates are considered part of the overall WHUP budget and savings goals. The Multifamily Path was not filed as its own program, but filed as one component of a whole building performance program that also includes two single family paths. Actual expenses and impacts will depend upon customer uptake in the three paths and many expenses will be shared and leveraged with the single family paths in order to streamline and reduce administrative and implementation costs.

Details regarding estimated savings for the Multifamily component are included in Advice Letter 4312-G-A. Please also see the Attachment file “ACR Scoping Memo Data Request Q7, Attachment 1.doc.” to this data request for a more detailed PIP. To be able to access a live version of the document, SoCalGas has posted the live document on its external website at: <http://www.socalgas.com/regulatory/A1207003.shtml>.

- b. Please see more detailed PIP provided in the attachment for more information regarding the “per building” or “per dwelling unit” tiered incentive structure.

Energy Savings Achieved	Incentive per Dwelling Unit
10%	\$ 700
15%	\$ 800

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

20%	\$ 1,000
25%	\$ 1,200
30%	\$ 1,400
> 35%	\$ 1,600

8. The Commission “expect[s] all of the IOUs to pursue cost-effective potential from behavioral programs with equivalent effort and timeliness” (p.75). Clearly describe in one succinct document any and all “behavior change” programs or pilots that are proposed to take place in 2013-2014. Indicate:
- a. objectives,
 - b. targeted participation levels,
 - c. implementation timelines,
 - d. budgets, and
 - e. energy savings.

SCG response to Q8:

In accordance with the driving behavior change elements of energy improvement, each utility will seek to reach at least 5% of their households through a variety of behavior change inclusive offerings.

Behavioral savings are funded through SoCalGas Advanced Meter Initiative (AMI) project, Decision 10-04-027, which found conservation estimates as reasonable and required SoCalGas to ensure that the estimated conservation savings are attained. SoCalGas will establish a system to track and attribute the conservation impacts of its AMI rollout. Every six months, SoCalGas shall file a report of measured savings. If the project is falling short of SoCalGas’ projections, the Company will submit revisions to its outreach plan to increase awareness, participation, and durability of conservation actions among customers.

Upon completion of the AMI project, SoCalGas will incorporate successful behavioral programs and techniques into the energy efficiency portfolio.

**Attachment B—Southern California Gas Company's Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- **Objective:** reach at least 5% of residential households through a variety of behavior change inclusive offerings.
- **Targeted participation level:** 5% of SCG's residential households = 285,000 residences.
- **Implementation timelines:** Energy Advisor plans to mass market to all residential customers to promote the use and benefits of the integrated audit tool through direct mail, online/email, social media, and community outreach throughout 2013-2014. AMI plans to coordinate and work in conjunction with Energy Advisor as advanced meters are installed to educate customers on how to understand their gas usage data, with the goal of influencing customer behavior as it pertains to energy use, which will tie directly to the integrated audit tool under the Energy Advisor program.
- **2013-2014 Budget:** \$1.8 million.
- **Energy Savings:** Not included in portfolio savings estimate.*

**AMI 1% conservation goal is separate from the 5% behavior goal, therefore no savings are claimed from the behavior portion of the initiative. SCG estimates 1,857 MDth in conservation savings for 2013 – 2014.*

9. Clearly indicate by IOU which of the several proposed pilots or tests included in the Plug Loads and Appliances (PLA) program each IOU intends to undertake in 2013-2014, as well as is understood at this time. Update the PIP to indicate:
 - a. Budgets for each proposed test/pilot
 - b. Objectives of the test/pilot
 - c. Hypotheses the test/pilot will be testing
 - d. Data collection or evaluation work likely to be required
 - e. Anticipated function and membership of the PLA Program Decision panel
 - f. Contractor training or other credentials required (particularly for pool pump installers)
 - g. Specific plans for 2013-2014 to engage TV service providers in addressing plug loads

h. Response to NRDC's suggestion to include clothes washer recycling.

SCG response to Q9:

PG&E proposed trials/pilots:

Answers to Q9a, b, c, d:

PG&E intends to undertake the ARP Secondary Market Intervention Trial in 2013-14 with the current understanding as follows:

- a. Budget: \$400k total, \$150k from EM&V, \$250k from residential budget (subject to approval)
- b. Objectives:
 - i. Quantify secondary market for refrigerators/freezers
 - ii. Assess opportunity for utilities to tap in the midstream market
 - iii. Identify product development and marketing strategy opportunities
- c. Hypotheses are that resalable units can be intercepted from potential resale and reuse in secondary markets.
- d. Data collection or evaluation work required:
 - i. number of units picked by non-utility recycling/hauling programs, including vintages of the units and working condition
 - ii. percentage of resalable units and their price range
 - iii. number of non-utility recycling/hauling programs and the quantity of units they capture
 - iv. number of second-hand appliance sales dealers/retailers
 - v. impact of the utility intervention through this trial/pilot

SCE proposed trials/pilots:

Answers to 9a: The proposed budgets for each pilot:

SCE Trial-1: Up to \$500,000

SCE Trial-2: Up to \$500,000

SCE Trial-3: Up to \$500,000

Answers to 9b: The objectives of each proposed pilot:

Description of SCE Trial 1: The 2010-2012 Plug Load Market Characterization Study by RIA/EMI identified market challenges that retailers face due to customer practices of "show-rooming," examining merchandise at brick-and-mortar retailers without purchasing the product and then shopping online for lower prices oftentimes with online retailers. High adoption of smart phones and shopping applications also enable consumers the ability to compare prices while in the store, further impacting the financial stability of brick-and-mortar retailers, and limiting the impact of program adoption of energy efficient plug load products.

In order to better understand consumers' shopping behaviors and to evaluate the viability of alternative delivery channels, PLA proposes a trial to study of online reseller channels such as:

- SmartHome.com – A Home Automation Superstore
- Buy.com – A Consumer Electronics and Products E-tailer
- EFL.org – an on-line organization dedicated to energy efficient products, where SCE has an existing relationship for CFL lighting products.

Trial Goals & Objective of SCE Trial 1: The goal of this trial is to explore the opportunity to work with online retailers and e-tailers to learn the logistics, market barriers and opportunities to enable higher adoption of ENERGY STAR qualified appliances and consumer electronics.

This trial is likely to test a few PLA measures that may be appropriate for on-line channel such as Advanced Power Strips and other possible on-line appliance and/or electronic purchases. The scope of measures to be included in this trial is still under exploration and it is not likely to be finalized until Q1/2013.

Description of SCE Trial 2: As an added measure to ARP and value added service to customers participating in the PLA program, the ARP project team proposes to include a pilot to recycle a select group of electronics equipment.

Trial Goals & Objective of SCE Trial 2: The objective of this ARP trial would be to see how offering the recycling of electronics would influence more customers to dispose of or replace existing inefficient electronics with more efficient units.

This trial would help to dispose of old electronic equipment in an environmentally responsible manner and would provide customers who may be encouraged to replace older inefficient electronics thru PLA with an option to dispose of their old equipment.

SCE is independently exploring opportunities to expand the program recycling options. We have included an evaluation of this opportunity in the 2010-2012 ARP process evaluation scheduled to be completed by Q1/2013. So, this pilot may be expanded to include other recycling appliances.

Description of SCE Trial 3: The goal of the Plug Load and Appliance Program (PLA) is to encourage adoption of above and beyond energy efficiency standards for targeted plug load products. Today, the prevalence of large screen TVs and use of either satellite and/or cable services are not in dispute. Increasingly in the home, there are multiple set-top boxes (STBs) from pay-TV service providers. While the energy efficiency of the TVs are improving as consumers move to purchase the latest flat panel TVs, however, the efficiency of the set-top boxes are not improving at the same rate.

STBs represent a significant savings opportunity due to their relatively high adoption rate (installed in approximately 5.2 million homes in SCE territory with approximately 500,000 STBs replaced annually per Research Into Action study*) and high energy consumption levels (approximately 150-200 kWh/year). STBs in California are estimated to consume 3,980 GWh/year with a peak demand of 478 MW, according to Ecova. NRDC states that STBs consume more than half the energy of an average new refrigerator and more than an average new flat panel TV. Furthermore, two-thirds of STBs' energy consumption occurs when the devices are not in use.

Additionally, not all pay-TV service providers are adopting ENERGY STAR qualified set-top boxes/cable boxes at the same pace, as evidenced by recent focus on STBs by Senator Dianne Feinstein, NRDC, the US Department of Energy, the California Energy Commission and the cable, satellite and telecom industries. Currently, only six (6) pay-TV service providers qualify for ENERGY STAR's fleet requirement. Pay-TV service providers are required to meet or exceed one of the following fleet/purchase requirements for each year of partnership to qualify for ENERGY STAR service provider status: 1) Ensure that

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

50% of all new set-top box purchases in a calendar year are ENERGY STAR qualified, or 2) Ensure that at least 25% of all set-top boxes deployed to subscribers at the end of the calendar year are ENERGY STAR qualified.: AT&T, Suddenlink Communications, DIRECTV, DISH Network, LLC, EPB, and Verizon Service Corp.

The goal of this trial is to work with the satellite and cable service providers to improve the efficiency level of today’s set-top boxes (Energy STAR Version 2) to above and beyond standards (Energy STAR Version 4). The STB pilot may also explore opportunities to encourage pay-TV service providers to meet ENERGY STAR labeled STB fleet requirements.

Following is the program design example by Vermont Energy Corporation (VEC). Satellite and cable box service providers may be solicited via RFP to upgrade deployed STBs in the field from current ENERGY STAR Version 2 level to ENERGY STAR Version 3 (and subsequently ENERGY STAR Version 4) levels. The proposed trial program may look at the VEC design in detail plus explore other alternatives. A midstream incentive may be offered as part of this trial program; additionally, upstream opportunities with set-top box/cable box manufacturers may be explored.

In addition, energy efficient advanced power strips (APS) may be bundled with energy efficient set-top box replacements to increase the efficiency level of the entertainment center since multiple appliances may be plugged into the strip. Installation of APS via knowledgeable and trained pay-TV service technicians may address an identified program barrier which is lack of consumer awareness for correct installation of plug load devices into APS. Education concerning the importance of managing miscellaneous plug loads may also be offered as part of the service package.

Trial Goals & Objective of SCE Trial 3: Encourage STB manufacturers and pay-TV service providers to move above and beyond ENERGY STAR standards by adopting higher efficiency STBs. To achieve this objective, the IOU must establish a working and collaborative relationship with both the STB manufacturers and service providers.

Answers to 9c: Hypothesis the proposed pilots will be testing:

Hypothesis & Researchable Questions of SCE Trial 1:

- What products/measures are appropriate for the web channel?
- Would web channel help reach customers that otherwise could not be reached?
- Would the web channel yield a lower level of free-ridership than standard retailer stores?
- Are there synergies and benefits to jointly explore the web channel with the lighting web channel trial? If yes, what are the benefits?
- Would the web channel yield a lower cost of implementation than standard store fronts? If yes, what is the cost savings?

Hypothesis & Researchable Questions of SCE Trial 2:

- Can this be done in a cost effective and environmentally sound manner, especially concerning mercury disposal?
- What are the energy benefits?
- What are the environmental benefits? Can the recycling benefits be captured in the RAD report?
- Is the outcome cost effective?

Hypothesis & Researchable Questions of Trial 3:

- Can this program accelerate the adoption of higher efficiency STBs? If yes, what is the counterfactual?
- By bundling the advanced smart strips during a Set Top Box Installation, can this program affect the energy efficiency and conservation behavior of households?
- Is the Set Top Box measure cost effective.

Answers to 9d: Data collection or the evaluation the proposed pilots will be testing:

Data collection or evaluation of SCE Trial 1:

- Before and after treatment sales comparison,
- Web channel participant feedback survey, concerning purchase preference and counterfactual,
- Cost per kWh energy savings analysis for web channel as compared to other channels.

Data collection or evaluation of SCE Trial 2:

- Work with the program team to finalize the logistics of the trial program,
- Depending on the program design, the study design may consider the following elements:
 - Experimental design from the perspective of pre/post or treatment/control groups,
 - Quantification of environmental benefits or potential program risks (i.e., disposal of mercury and other toxic components)
 - Participant feedback analysis.

Data collection or evaluation of SCE Trial 3:

- Work with the program team to finalize the logistics of the trial program,
- Depending on the program design, the study design may consider the following elements:
 - Experimental design from the perspective of pre/post or treatment/control groups,
 - Quantification of environmental benefits or potential program risks (i.e., disposal of mercury and other toxic components)
 - Participant feedback analysis.

SDG&E proposed trials/pilots:

SDG&E intends to undertake the IDSM HEMS pilot in 2013-14 with the current understanding as follows:

- a. Budget for this pilot = To be provide later
- b. Objectives of this pilot = to quantify the energy efficiency benefits of automation and information provided by the IDS HEMS (Integrated Demand Side Home Energy Management System); to identify key drivers to customer satisfaction of IDS HEMS equipped home; to identify critical success factors for mass development of IDS HEMS; and to assess the program implementation feasibility of such IDS HEMS.
- c. Hypotheses the pilot will be testing = Automation and information provided by IDSM HEMS help customer to be more energy efficient, IDSM HEMS help customer to be better informed and more satisfied energy consumer.

- d. Data collection or evaluation work likely to be required = time-interval UEC data of various appliances through representative household through different season, day of week, energy price, inside and outside temperature; customer's information queries either through web portal or IHD under above monitor conditions; customer's billing charges under above monitor conditions; customer's satisfaction levels; and comments at each billing cycle.

SoCalGas proposed trials/pilots:

At this time, SoCalGas has no proposed pilots/trials for 2013-2014. The PLA statewide team agreed not to duplicate efforts on proposed trials/pilots for 2013-2014. SoCalGas will review the results from the ARP Secondary Market Intervention Trial on refrigerators, the Sales Channel Strategy on consumers shopping behaviors for electronic appliances, the ARP on Electronic Appliances and the IDS HEMS (Integrated Demand Side Home Energy Management System) and determine whether a pilot/trial program focusing on gas related measures is needed and proves to be cost-effective.

SoCalGas would like to modify the PLA cover page to reflect changes in the program description (Appendix C, pg 21). SoCalGas would like to add a 'yes' to resource acquisition program, Item 5, program box (b). The SoCalGas PLA program will be both a resource acquisition and market transformation program for 2013-2014. SoCalGas would also like to change the primary intervention strategies to include a 'yes' on direct install, Item 6, program box (d). Please see Attachment A to this data request.

Please see the Attachment file "ACR Scoping Memo Data Request Q9, Attachment A.docx." to this data request for the modified PIP cover page, reflecting the noted changes. To be able to access a live version of the document, SoCalGas has posted the document on its external website at:
<http://www.socalgas.com/regulatory/A1207003.shtml>.

Answer to 9e. Anticipated function / membership of PLA Program Decision panel:

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Individual utilities will continue to manage products and programs using stage-gate product development process to optimize intervention strategies through the product lifecycle. The PLA Program Decision panel will consist of the IOU representatives from the Statewide PLA program team that coordinate the adoption and promotion of consistent specifications, rebate levels and best practices for the PLA sub-program.

Answer to 9f. Contractor training or other credentials required (particularly for pool pump installers)

For PG&E, the Pool professionals are required to take approved training on energy efficiency and variable speed filtration pump installation recommendations. The budget for 2013-14 is not allocated. It is estimated that \$50k per year would be sufficient to retrain all existing and new entrants to the pool professional trade.

If the installation of the appliances is completed by the contractor, then SDG&E’s PLA Program required the customer to use licensed contractors if the product and installation cost more than \$500. For pool pump installation, SDG&E is evaluating best practices such as PG&E’s Contractor Training Requirements supplement by PG&E’s provided training program to Pool Contractors to ensure high quality retrofit projects and code requirements compliance.

All participating contractors must be appropriately licensed by the Contractors State License Board. Contractors must also participate in mandatory technical and program administrative training as designated by SCE. As currently planned, the Pool equipment technical training will cover swimming pool operation theory, and energy audit fundamentals.

For SoCalGas, although pool pump is an electric measure not offered in the SoCalGas PLA program, SoCalGas will adhere to the guidelines set forth by SB 454.

Answer to 9g. Specific plans for 2013-2014 to engage TV service providers in addressing plug loads:

In 2013, SCE may explore engagement of pay-TV service providers in SCE territory as part of ramp-up activities for a Set-Top Box trial described in question #11 above with possible implementation in 2014. SCE territory is serviced by a number of national and regional pay-TV service providers which may include AT&T, Brighthouse Networks, Comcast, Cox Communications, Dish, DIRECTV, Mediacom, Time Warner and Verizon. No specific plans have yet been outlined how pay-TV service providers will be engaged in 2013-2014.

SDG&E is assessing the markets to determine the most effective engagement strategy with the TV service providers in addressing the energy consumption of TV set-top boxes.

Addressing plug loads with TV service providers is an electric measure and does not apply to SoCalGas.

Answer to 9h. Response to NRDC's suggestion to include clothes washer recycling:

SCE has a study task in the 2010-2012 ARP process evaluation to investigate the feasibility of adding more appliances to the ARP sub-program. This task is likely to be done by Q1/2013. We will provide information to the Energy Division during the regular program check-in meeting as soon as we have preliminary results to share.

With respect to appliance recycling for clothes washers, NRDC comments that the performance gap widens between efficient new machines and older cohorts, and suggests that a retailer-based clothes washer recycling program would likely be more cost-effective (NRDC, p. 20), SDG&E is willing to work with the other IOUs, manufacturers, retailers and other appropriate partners to re-assess market conditions and make appropriate program enhancements to ensure new cost-effectives measures and appropriate program enhancements are adopted.

SoCalGas is willing to work with the other IOUs, manufacturers, retailers and other appropriate partners to re-assess market conditions and make appropriate program enhancements on a limited number of units provided the evaluations from the ARP process evaluation and pilots/trials proves to be feasible and cost-effective.

10. For the Multifamily Energy Efficiency Rebate (MFEER) program:
 - a. Describe in detail how MFEER will implement recommendations from evaluation studies conducted of this program during 2010-2012
 - b. provide narrative and examples of lessons learned or implemented recommendations from the MFEER process evaluation.

SCG response to Q10:

The MFEER program will coordinate where applicable with the EUC Multifamily Program to provide a more holistic total building approach. Training will be conducted for the contractors on the programs as well as on technologies for the building as whole. Contractors will also be trained on how to best market the program to property owners.

Looking beyond the lighting contractors to add new measures to the program, as well as seeking out new technologies will allow the program to achieve deeper energy savings. Coordination with MFWHUP and low income programs are key elements in providing expanded options to multifamily property owners and managers. The IOU's will explore marketing strategies to outreach to homeowners/realtor associations, and property management companies.

The MFEER program is exploring a MF-Audit tool. For the large property owners/managers, benchmarking services would be important to the success of the program. For the smaller customers, a comprehensive audit would help to fully identify improvement needs and a plan to address these needs.

Lessons learned or recommendations for SoCalGas' next program cycle include characterizing rental property market based size of the overall apartment holdings as well as the rental rate (income classification) to define the most effective program positioning & outreach to the key decision makers. SoCalGas seeks to develop a system for designating buildings, not units, as low income. SoCalGas will also work identify barriers to participation (split incentive) so that the most effective marketing messages can be communicated to the building owner/property manager via a single point of contact.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

11. Applications indicate that the MFEER program is one of the most cost-effective residential programs. Given this, why are the proposed budgets and participation targets so relatively low? If justified, indicate augmented budgets, with more ambitious multifamily building enrollment targets for 2013-2014, in a revised PIP.

SCG response to Q11:

The MFEER program faces a transition year in 2013. New measures are being added, new marketing approaches are being considered, and the program will have to be balanced with the proposed multi-family whole house program and low-income program efforts to target the multifamily customer segment. SoCalGas hopes that marketing efforts in 2013 will lead to greatly increased program demand during the later part of 2013 and 2014. If program reservations/demand for services exceeds the proposed budget, SoCalGas will shift funds from less productive programs to increase support for MFEER. This contingency was considered in the development of SoCalGas's overall budget request. SoCalGas does not believe it is prudent at this time to increase MFEER 2013-14 funding beyond that which was requested, and is not necessary because current fund-shifting rules allow sufficient flexibility to meet any likely increases in program demands.

12. Estimate the percentage of Whole House Upgrade Program and Plug Load and Appliance program budgets that will be reserved for or targeted to multifamily buildings.

SCG response to Q12:

SoCalGas WHUP	Admin.	Marketing & Outreach	Direct Imp. (Customer Services)	Direct Imp. (Incentives & Rebates)	Total 2013-14 Budget	2013-14 Therm Savings
WHUP - MultiFamily	\$134,800	\$239,640	\$950,678	\$674,882	\$2,000,000	232,050
MIDI	\$134,800	\$239,640	\$950,678	\$674,882	\$2,000,000	44,000

Please see WHUP-Multifamily and MIDI budgets above. Each represent 19% of the filed \$10.7 million Whole House Upgrade Program budget.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

The SoCalGas PLA program is ‘targeted’ to customers (not buildings) who are on a GR-1 rate whether they live in a multifamily building or detached single family residence (up to 4 units). The MFEER program budget covers measures targeted towards multifamily buildings. Both the PLA program and the MFEER program are treated and function separately. The PLA program has no funding reserved for or targeted to multifamily buildings.

13. Describe the “peak incentive” for the Residential New Construction programs in more detail.
 - a. Which program(s) would offer this incentive?
 - b. If the incentive is for kW avoided by installation of renewable energy systems, are the utilities proposing to use energy efficiency funds for this purpose?
 - c. Is the aim of this proposed incentive to stimulate construction of “zero peak homes?” If so, provide a consolidated IOU definition of a “zero peak home.”

SCG response to Q13:

- a. Peak incentives are included in the Energy Star Manufactured Homes (ESMH) Program (\$75/kW). The California Advanced Home Program (CAHP) will no longer offer a peak incentive because the statewide team did not see enough evidence in the 2010-2012 program to suggest that “kicker” incentives were cost effective or necessary to increase program adoption beyond the adoption generated by the standard incentive offerings. The statewide IOU CAHP team did not receive negative feedback speaking with representatives from the California building industry after presenting the proposal to remove “kickers” in the 2013-2014 program.”
- b. The utilities will not be spending incentive dollars or claiming savings on these measures. Rather, non-incentive dollars will be used for the purpose of driving the residential new construction market toward the Long Term Energy Efficiency Strategic Plan’s (LTEESP) 2020 ZNE goal. Renewable energy will be a critical component of reaching this goal, and RNC is

considered a market transformational program. Therefore the support of kW reduction measures, including renewable technologies, is necessary.

- c. No, this proposed incentive is eliminated from CAHP and retained in ESMH to help support ZNE 2020 goals rather than zero peak homes.
14. Describe the training requirements and targets for the CAHP program in detail. Indicate how such trainings will be aligned and coordinated with any new Codes and Standards workforce trainings offered in 2013-2014.

SCG response to Q14:

As in the 2010-12 program cycle, the CAHP trainings offered by the utilities will be primarily focused on the key elements of the new Title 24 code requirements, and the incremental changes from the current code. Prior to the implementation of the new code, the utilities will develop climate zone specific measure strategies for achieving energy savings levels significantly above the code minimum. As the primary concern of the builders is the additional costs associated with the measures, the utility trainings will work towards assisting builders and energy analysts in understanding the cost-benefit aspects of the suggested measure strategies.

During the first year of implementation of the new code, the utilities will conduct at least four training sessions; training sessions will be continued on an as-needed basis thereafter.

The utility training sessions will be targeted towards (Section 6a iv and 6b iii) builders' sales agents, T-24 consultants, architects, contractors, real estate agents, raters and energy analysts. In addition to the training sessions, the utilities may provide additional technical presentations at CABEC meetings, BIA chapter meetings, etc., as opportunities become available to reach out to energy analysts and raters and other stakeholders.

Additionally, the utilities offer targeted classroom course offerings in T-24 code, software, green building techniques, lighting and HVAC, energy cost management, and food service equipment. CAHP stakeholders will have the opportunity to take advantage of these course offerings.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

The CAHP training efforts will be coordinated with Codes & Standards workforce training schedules. IOU’s Codes & Standards proposed training activities for the 2013-14 cycle may include but are not limited to the following:

Title 24 Standards Essentials Role-Based training for building inspectors:

- Training to plan examiners and energy consultants.
- Expanded role-based training curriculum to additional compliance improvement market actors, such as the building trades and design professionals as guided by the Needs Assessment.

HVAC Quality Installation and Other Programs with Direct Code Requirements:

- Identification of opportunities to insert code compliance modules in existing curriculum, such as training required for technicians.

On-line Compliance Training:

- Exploring delivery mechanisms beyond the traditional classroom to include live webinars, activity-based online training, and in-field demonstrations.

CAHP will closely coordinate its training plans with Codes & Standards and invite new construction stakeholders to participate and obtain first-hand knowledge about code requirements and compliance options. C&S is currently conducting a needs assessment to determine what the residential building industry needs in order to prepare for effectively implementing the 2013 standards. The assessment will be complete by November 2012, and the outcome will determine what training the IOUs will develop and begin delivering in 2013.

15. Provide builder and home/unit participation targets for the CAHP program for 2013-2014. Provide analysis demonstrating that these are appropriate targets, providing data from credible sources referring to construction start projections, as well as past CAHP participation levels. Discuss in detail how this program advances or fulfills the goals of the Strategic Plan and Zero Net Energy strategies and goals.

SCG response to Q15:

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

	2013-2014 Projections			
	Total Builders	Total Units	SF Units	MF Units
PG&E	200	13,556	9,979	3,577
SDG&E	25	5,175	3,881	1,294
SCG	35	13,191	10,310	2,881
SCE	35	12,900	6,958	5,942

Projections for PG&E and SDG&E are informed by IOUs’ current project pipeline, historical participation rates, and the June 2012 UCLA Anderson Forecast of the California housing market in 2013-2014. PG&E’s forecast assumes a 4% month-over month increase in new home starts through 2013, a 8% month-over-month increase in new home starts in 2014, and a linear correlation between the strength of the home construction market and CAHP program participation. SCG and SCE used Global Insights projections for 2013 and 2014 and applied historic participation rates. Details of this analysis are shown below.

COMMITMENTS		2009	2010	2011	2012	2013*	2014*		
SINGLE FAMILY									
CAHP Construction starts*	No. of Units	14895	15119	12525	12973	22026	35955		
CAHP Project Commitments	No. of Units		3792	5663	151	3822	6488		
Project Commitment as a percentage of previous year’s construction starts			25.5%	37.5%	1.2%	29.5%	29.5%	29.5%	**
MULTI FAMILY									
CAHP Construction starts*	Units	5655	6823	11627	17583	23436	26084		
CAHP Project Commitments	No. of Units		284	752	22	1235	1646		
Project Commitment as a percentage of previous year’s construction starts			5.0%	11.0%	0.2%	7.0%	7.0%	7.0%	**
Note:									
* SCG’s projections based on Global Insights published data - SCG territory									
** Projections for 2013 & 14 based on 12 months of 2010 and 6 months of 2011. SCG’s program was closed from July 2011.									

The 2013-2014 CAHP continues to prepare the residential new construction market for future iterations of increasingly stringent energy codes through the offering of performance-based financial incentives. Specifically, the LTEESP

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

targets “by 2015, 90% (of new homes) will surpass 2005 Title 24 standards by 35%. By 2020, all new homes are ZNE.” CAHP targets the achievement of the 2015 goal through the core program and the 2020 goal through the ZNE subcomponent, which is still being developed. At a minimum, this subcomponent will include in-depth technical analysis to optimize the technology most applicable to each ZNE project.

16. Explain in detail the proposed role for ENERGY STAR in both the CAHP and ENERGY STAR Manufactured Housing programs and justify any difference in approaches.

SCG response to Q16:

While CAHP highly values the ENERGY STAR brand, the 2010-2012 kicker did not provide the desired program outcome. In 2011, ENERGYSTAR participation in SCG’s program was less than 10% of project commitments. Per Answer 13 above, the IOUs have proposed to eliminate “kicker” incentives in the 2013-2014 program. Therefore, ENERGY STAR’s role in CAHP will transition from receiving a 10% incentive bonus for participation to receiving ENERGY STAR marketing support. Details of this marketing support are still under development, but the goal is to increase the ENERGY STAR brand awareness in the residential new construction market.

ENERGY STAR will retain a primary role in the Energy Star Manufactured Homes (ESMH) program, as qualification for the program is based wholly on ENERGY STAR criteria. ENERGY STAR for manufactured homes is a national brand with national recognition in the industry. The CA IOUs value the industry recognition ENERGY STAR has garnered and will continue to help foster the brand, improving construction practices beyond the standard Department of Housing and Urban Development (HUD) requirements.

17. Provide ENERGY STAR Manufactured Housing program:
 - a. Budgets
 - b. Participation targets
 - c. Number of units estimated statewide for manufactured housing in 2013-2014.

SCG response to Q17:

- a. 2013 = \$135,000; 2014 = \$135,000
 - b. 2013 = 95; 2014 = 95
 - c. 1,500 Statewide
18. Discuss IOU work to explore HERS II assessment or rating incentive pilots with local governments. Also explain why SDG&E was the only utility to include a HERS II assessment/rating proposal for their Whole House Upgrade Program.

SCG response to Q18:

SoCalGas currently includes HERS as part of the current structure for WHUP. SoCalGas also proposes to give contractors the option of using HERS II when applicable in the Single Family and Multi Family Programs.

19. The proposed scaled performance-based incentives for 2013-14 for the California Advanced Home Partnership are identical to those used for the program during 2010-2012. Please explain how this complies with D. 12-05-015 Ordering Paragraph 69 and dicta at 184, which states:
- “We direct the IOUs to include in their 2013-2014 applications a timeline by which increased levels of incentives supporting the 30% more efficient building codes expected to be adopted in Title 24 can be incorporated into their Residential New Construction program. The date proposed for inclusion in the Residential New Construction program of higher incentives supporting the increased Title 24 efficiency levels should be no later than March 1, 2013. The IOUs shall consult with the California Energy Commission, Commission Staff, builders and other stakeholders regarding appropriate incentive levels for this increased building efficiency performance. The incentive design and increased incentive levels identified in this process should encourage the early adoption of base and reach (Title 24) codes.”
- a. Provide a date certain for when the IOUs will convene the required consultation regarding higher incentive levels.

SCG response to Q19:

The IOUs will comply with the Commission's directive to raise incentive levels in the Residential New Construction program by March 1, 2013 in such a way that eases the transition to the 2014 code and helps push builders toward the early adoption of code measures. The IOUs will convene the required consultation and finalize details of a revised incentive structure no later than December 1, 2012.

Commercial Programs

20. Describe in detail how the commercial programs will be structured to achieve deep energy savings through bundled measures. Is there a minimum number of measures defining what is "bundled?" Would bundled measures always include at least one non-lighting measure? Explain.

SCG response to Q20:

SoCalGas has proposed an integrated approach of new commercial program design and structure to achieve deeper energy savings which includes increased measure incentives for "bundling" and "emerging technologies":

1. SoCalGas Core, Third Party and Local Government Commercial, Industrial and Agricultural (CIA) programs will be designed and delivered to help achieve deeper energy savings by encouraging customers to do full assessments/audits of their energy use, and implement cost effective energy savings and self-generation measures. Key to achieving deeper energy savings is encouraging and motivating customers to first perform an appropriate and detailed energy assessment (audit).
2. Emphasis will also be given to bundling a diverse mix of energy efficiency and self-generation measures which complement and enhance the overall performance of each other. Bundling can take place within like measure families, across measure families,

across DSM options, or any combination of these. The IOUs are currently discussing and developing how many measures, across how many DSM families constitutes “bundling,” and what incentive structure and incentive levels will help customers achieve deeper energy savings.

SoCalGas and other IOUs also view the proposed Whole Building Demonstration as a possible channel for measure bundling (e.g., retro-commissioning and customer retrofit incentives) through a customized, performance-based approach that provides customers with an incentive to realize both persistence benefits, as well as pursue incremental measure opportunities over time.

3. SoCalGas will target emerging technology programs to projects that can provide deeper energy savings through the use of multiple measures. SoCalGas and the other IOUs are discussing increased emerging technologies incentives during the transition from initial development, product testing and market testing to mainstream market introduction. This strategy also would decrease incentives appropriately as new technologies become readily accepted and embedded in the market place through the technologies lifecycle.

It is the objective of SoCalGas and the other IOUs to have these three program enhancements in place during the 2013 -2014 program cycle.

21. The statewide commercial PIPs mention an emphasis on deep energy savings and emerging technologies when appropriate. Explain how the commercial programs (including Energy Advisor) will target customers to install measures with deep savings potential.
 - a. What criteria will the utilities use to determine when this is “correctly aligned?”
 - b. Under what circumstances might it be appropriate to emphasize “deep energy savings?”

SCG response to Q21:

SoCalGas believes the opportunity to achieve deeper energy savings through the strategies detailed in our response to the commission's previous question 20 exists in all delivery channels (Core, Third Party, Local Government Partnerships) and across most if not all commercial, industrial and agricultural markets and customers. To the extent possible, within the time remaining before the beginning of 2013-2014, SoCalGas' objective is to include enhanced program design and structure for motivating customers to perform energy audits and create more comprehensive customer projects through measure bundling across as many channels, programs, and markets as is possible. Some channels or markets, e.g. Third Party and LGP, may take longer to transform during 2013-2014 due to existing contractual commitments.

SoCalGas will target their emerging technology programs to projects that can provide deeper energy savings through the use of multiple measures. SoCalGas and the other IOUs are discussing increased emerging technologies incentives during the transition from initial development, product testing and market testing to mainstream market introduction. This strategy also would decrease incentives appropriately as new technologies become readily accepted and imbedded in the market place through the technologies lifecycle.

SoCalGas takes a holistic view toward deeper energy savings, recognizing the importance and potential cost effectiveness of capturing and sustaining operational savings in buildings. Advanced building controls and analytics software, also known as energy management and information system (EMIS) products, can enable or engender those types of savings. Analytics software, in particular, has the potential for identifying retro-commissioning and retrofit opportunities that typical investigations may be unable to detect easily.

SoCalGas can measure when enhanced program design and structure, and the targeting of Emerging Technologies (ET), are properly aligned with customer, market and societal needs and benefits through on-going monitoring and by utilizing the current reporting of Program Performance Metrics (PPMs) related to ET measures and results that show customer projects are realizing greater numbers of cost effective deeper energy savings (as compared to 2010-2012 as the baseline).

22. How will the utilities incorporate a comprehensive whole building approach into the commercial building energy efficiency programs?

SCG response to Q22:

SoCalGas believes the whole building approach (WBA) could play a crucial role in achieving statewide efficiency goals by expanding participation in commercial building efficiency programs, especially for Small / Medium Business (SMB) customers, but SoCalGas also recognizes that there are many technical and evaluation challenges that must be addressed in order for WBA-based programs to become viable for deployment on a large scale.

SoCalGas has a number of initiatives underway, including the proposed Whole Building Demonstration, to test the viability of WBA-based programs that offer a mix of measures (e.g., retrofit and retro-commissioning) and plans to leverage using a variety of metered data (e.g. sub-metering and Advanced Metering Initiative) to improve the cost-effectiveness of ex-ante savings estimation and ex-post savings measurement. For SoCalGas, a key goal of its WBA-based program activities during the Bridge Cycle, including the proposed Whole Building Demonstration, is to prove that deep energy savings can be achieved and reliably proven not just through a single intervention, but through multiple interventions over time using performance baselines produced using either calibrated simulation (forward modeling) or EMIS software (inverse modeling) that leverage advanced metering data.

The Whole Building Demonstration would rely upon a Whole Building Approach (WBA) for estimation and measurement of energy savings produced by the mix of measures deployed among participating customers. Although SoCalGas and the other IOUs are still evaluating program design alternatives for the demonstration, SoCalGas’ expectation is that the Demonstration will be targeted to customers for which WBA is well suited (e.g., sufficiently large energy savings potential in excess of the current 10% guideline under the International Performance Measurement and Verification Protocol (IPMVP) - Option C).

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

In addition to the Whole Building Demonstration, SoCalGas’ will evaluate incorporating WBA into existing programs, such as its Core Retro-commissioning Program, to demonstrate the viability of whole building approaches for commissioning or strategic energy management programs.

SoCalGas will review suggestions from the WBA applications beyond the proposed Whole Building Demonstration, so that it may adjust its programs and align funding and evaluation resources where appropriate.

23. What types of market research, market tests, and/or pilots do the utilities plan to use to reduce the split-incentive barrier in commercial multi-tenant buildings (OP 80)?

SCG response to Q23:

As stated in the proposed SoCalGas 2013-2014 Commercial PIP, multi-tenant buildings have a unique and significant barrier. Most typically referred to as the principal-agent or tenant-landlord split incentive, this issue is characterized by the natural separation of tenant energy efficiency savings and capital expenditures by building owners. Energy efficiency is often not a priority in buildings built to lease either because of the split incentive between owner and occupant, and each situation depends on who pays the utility bills. Leased buildings present barriers to energy-efficient operations and efficiency upgrades, and the reason for this lies in the lease structure and issues related to sub-metering. If the tenants split the utility bill or if spaces are sub-metered and paid for by the occupant, the owner will be less inclined to consider efficient performance of the building in early project decision-making because much of the operations cost is borne by the tenant.

SoCalGas notes that Savings By Design (SBD) has moved to increase the incentives offered for those projects that include an M&V component in their projects that would entail monitoring end uses. Some strategies that SCG may consider include:

- Market research and/or market tests to better understand how best potential programmatic offerings can help to reduce the barrier.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- Combinations of education and creative tenant/landlord incentives or credits for centralized systems or building shell upgrades.
- Incentives for sub-metering.
- Outside consulting services with expertise in tenant/land lord contract relationships to help find solutions and answers to overcoming the current split-incentive barriers.
- Open this challenge and opportunity to Third Party and Local Government providers through new 2013-2014 program solicitations.
- In the 2013-14 transition cycle, IOUs will be engaging in pilot activities within the SBD framework that seeks to uncover innovative ways of addressing the barrier.

24. Propose the percentage of programs that will include the incentives for sub-metering and plug load control technologies (OP 80).

SCG response to Q24:

SCG continues to review possible strategies and tactics for including specific incentives for sub-metering in the 2013-2014 program. Sub-metering will be included as-needed in the Whole Building Demonstration and RCx programs to help assess and verify the validity of whole building measure identification and savings quantification techniques.

25. Beyond the Energy Advisor program, how will the commercial programs test the directive (OP 74) of requiring an audit on customers who implement three or more measures?

SCG response to Q25:

SoCalGas notes that D.12-05-015 asks the IOUs to explore requiring an audit on customers who implement three or more measures (see p. 218), and OP 74 directs the IOUs to examine the effects of an audit requirement.

SoCalGas believes that mandating an audit for customers implementing three or more measures is counter to the Commission’s directive to achieving deeper energy savings with each customer. Such a requirement creates a barrier rather than an encouragement for customers to implement all cost effective energy

savings measures. SCG would like to collaborate with the other IOUs to develop an effort to enhance the Energy Advisor program in order to identify measurable goals.

26. Describe how the various commercial programs will collect and utilize performance data.

SCG response to Q26:

SoCalGas and other utilities are actively studying ways that performance data, whether collected at the device, system or building-level, may be cost-effectively collected and utilized to support commercial program goals. For example, the collection and utilization of performance data is a key element of SoCalGas’ Advanced Metering Initiative (AMI) and thus, any behavior savings will be captured through that program. However, Whole Building Approach (WBA)-based program activities, including the proposed Whole Building Demonstration, will capitalize on opportunities to collect and utilize such data from the AMI program, when possible.

Sub-metering will be included as-needed in the Whole Building Demonstration and RCx programs to help assess and verify the validity of whole building measure identification and savings quantification techniques. A key goal of these activities is to prove that through emerging technology and advanced modeling techniques, sub-metering can be leveraged to offer cost-effective incentives for measures that produce device (i.e., retrofit), operational, and behavioral savings. Under this concept, energy use baselines would be produced using either calibrated simulation (forward modeling) or EMIS software to achieve the requisite level of savings quantification accuracy.

SoCalGas will collaborate with the other IOUs who are currently exploring alternatives for evaluating the accuracy of baselining tools to pursue accuracy for WBA-performance-based programs that base incentives and claimed savings on the energy use baselines produced by these tools.

27. What are the proposed programmatic strategies that the commercial programs will utilize to target the MUSH market (p. 225)? Please update the PIP to indicate:

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- a. What are the numerical targets for buildings within the MUSH market that will be addressed by statewide programs?
- b. Describe what sub-programs will be addressing the MUSH market.
- c. What is the percentage increase of third party programs that will be addressed by statewide programs targeting the MUSH market?

SCG response to Q27:

Please see the Attachment file “ACR Scoping Memo Data Request Q27, Attachment 1.pdf.” to this data request for an updated Commercial program PIP. To be able to access a live version of the document, SoCalGas has posted the live document on its external website at:

<http://www.socalgas.com/regulatory/A1207003.shtml>.

The IOUs provide a robust offering of energy efficiency services and products to the MUSH market through current Core, Third party and Local Government Partnerships (LGP) programs and contracts. Examples of current offerings include:

- Customized Retrofit Incentives
- Deemed Incentives
- Retro-commissioning
- Benchmarking
- On-Bill Financing
- Integrated Audits
- Savings By Design (NRNC)

SoCalGas will continue to deliver its current robust offerings of energy efficiency efforts in the MUSH market in 2013-2014. SoCalGas will enhance its current robust offerings of energy efficiency programs and products in 2013-2014 through additional financing options, additional Third Party and LGP solicitations and contracts, and increased focus on the hard-to-reach small and medium commercial markets (already underway in 2012), new incentives trials to motivate MUSH customers to bundle DSM measures that enhance each other and create deeper energy savings (see details in response to Question 20), and through increased incentives for new emerging technologies (see details in response to Question 20) available to MUSH customers.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Approximately 13% of SoCalGas’ EE Portfolio incentive budget has historically gone to the MUSH markets, which have historically generated 9% of the natural gas (therm) savings. These percentages are expected to increase within the 2013-2014 due to the additional focus on MUSH markets, especially within the hard to reach small and medium business customers, and additional third party, local and regional government partnerships serving the MUSH markets as a result of new third party solicitations.

As in 2010-2012, all Commercial sub-programs will be addressing MUSH markets and customers. For 2013-2014 this includes Commercial Calculated Incentives, Commercial Deemed Incentives, and Energy Advisor services.

Currently, there are three third party programs (competitively bid programs and part of minimum 20% portfolio funding) that address the MUSH market. SoCalGas will be seeking additional third party contracts as part of its 2013-2014 EE Portfolio. Some of these new solicitations may include third party proposals for addressing the MUSH markets. Because the solicitation is not yet completed, the percent increase in third party MUSH offerings for 2013-2014 is not available at this point in time.

In addition to serving the MUSH markets through Commercial and Third Parties, SoCalGas will effectively serve the MUSH market through local and statewide government partnerships. All 13 local government partnerships will focus on assisting cities and counties with identifying and implementing energy efficiency projects in municipal facilities through a combination of customized rebate and deemed rebate programs. Statewide government partnerships will continue to serve higher education customers, specifically campuses associated with the University of California, California State University and California Community Colleges, through customized energy efficiency retrofit, retro-commissioning, and new construction projects. In some regions, local government partnerships will coordinate with third party and Core programs to serve schools and hospitals.

28. The utilities were directed to consolidate programs, including for new construction. Indicate the budget and savings targets within the Calculated Incentive program that are being allocated for the Commercial

New Construction Program – Savings by Design. Calculate the percentage increase or decrease in budget from the 2010-2012 and explain the rationale.

SCG response to Q28:

The IOUs were directed in the Commission's Energy Efficiency guidance decision ruling, D.12-05-015 (pg. 12), to eliminate the statewide New Construction Program, and distribute its associated sub-programs, as appropriate, within the Residential, Commercial, Codes & Standards, Emerging Technologies, and Workforce Education and Training statewide programs. The Commercial New Construction Program, including budget and savings, are now included within the statewide Commercial PIP budget and savings estimates.

The average annual budget for 2013-14 Savings By Design efforts was set at \$1,081,669, a 34% decrease from the average annual budget for 2010-12, but a 188% increase over the actual 2011 expenditures for this sub-program. The budget was decreased to be reflective of expected market conditions for 2013-14.

The therm savings target for Commercial New Construction is 1,355,440. These gross therms were taken from the relevant measures that were filed in the E3 calculators. New Construction therm savings targets are also incorporated in the Agricultural and Industrial Calculated programs.

29. Provide targets for the number of business improvement districts (BIDs) and local government partnerships with which the IOUs plan to partner through the Direct Install Program (OP 73).

SCG response to Q29:

SoCalGas does not have a sub-program for a Direct Install program, so it was not applicable to detail how such program could coordinate with Local Government Partnership Programs (LGPs) and BIDs. Please note that SoCalGas' local government partnerships are considered non-resource programs with incentives run through the core programs. If the opportunity arises, SoCalGas will investigate working with BIDS, LGPs, and Municipalities for possible Direct Install opportunities.

30. Provide measurable goals for the Energy Advisor program objectives, beyond number of audits.

SCG response to Q30:

SCG plans to continue tracking audits that have influenced the customer to participate in the rebate/incentive programs. SCG would like to collaborate with the IOUs to develop an effort to enhance the Energy Advisor program in order to identify measurable goals. The transition period shall allow for additional time to analyze the data and aim towards increasing customer influence in installing energy efficient measures.

Industrial and Agricultural Programs

31. Explain the rationale for cutting the industrial and agricultural custom calculated program budgets (p. 393 states that the utilities "shall not curtail custom measure and project activities...")

SCG response to Q31:

Please note for clarification the quoted OP is located at p. 399 of the final decision, and states that utilities "shall not curtail custom measure and project activities due to low gross savings or Net-to-Gross results."

SoCalGas carefully evaluated recent and likely future industrial and agricultural custom calculated activity in preparing its budgets for the industrial and agricultural custom calculated subprograms. The average annual agricultural custom calculated budget for 2013-14 was set at \$2,022,616, a 3% increase over the average annual 2010-12 budget for this sub-program. The average annual industrial custom calculated budget for 2013-14 was set at \$13,829,095, a 21% decrease from the average annual 2010-12 budget, but a 29% increase over the actual 2011 expenditures. These proposed budgets are commensurate with and developed according to the expected program uptake levels for the 2013-14 period.

32. What is the overarching Energy Advisor budget and the budget allocation for the five subprograms?

SCG response to Q32:

Program	SCG
Benchmarking	\$69,998
Onsite Audits	\$1,097,285
Online Audits	\$39,998
Pumping Efficiency Services	\$56,741
RetroCommissioning	\$29,998

Overarching 2-Year Budget Total:	\$1,294,020
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33. How do you plan to implement baseline determinations in the industrial and agricultural sectors?

SCG response to Q33:

SoCalGas plans to employ the following baseline determination guidelines:

- a. SoCalGas proposes to work in conjunction with the other IOUs to conduct Industry Practice studies to be used on selected measures to determine if certain types of baselines are appropriate. Those that are deemed “industry standard practice” will be removed from the list of eligible measures at the time the determination has been finalized.
- b. SoCalGas plans to utilize input from the Energy Division’s ex-ante review process to determine programmatic or calculation requirements related to measure baselines.
- c. SoCalGas plans to also incorporate information gained from the proposed 2013-14 baseline indicator studies of various markets. SoCalGas plans to work with other IOUs to initiate other statewide “industry standard

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

practice” assessments to define baselines for measures without such research.

34. Industrial and Agricultural facilities typically have less conditioned space than commercial facilities, where retrocommissioning programs have thus far been focused.
- a. Why is retrocommissioning an energy saving strategy for the Industrial and Agricultural Markets?
 - b. If it is monitoring-based, where do you see the opportunities in the industrial and agricultural sectors?
 - c. If not, how will the two retrocommissioning offerings be implemented?
 - d. Are there program manuals for retrocommissioning in the industrial and agricultural sectors? If not, how will the two offerings be implemented?

SCG response to Q34:

SCG does not currently offer these programs to these specific segments, thus the responses below are prospective in nature.

- a. Retrocommissioning (RCx) has proven to be an effective tool in the Commercial sector to assist customers to return equipment and systems to design or more efficient operating specifications. A RCx - audit of a customer’s existing equipment or system, includes analyzing its current level of operation, and makes recommendations to increase and optimize its efficiency. Conceptually, that same process may be applied to the Industrial, and to a lesser extent, the Agricultural sectors. SoCalGas plans to investigate the RCx opportunities during the 2013 – 2014 transition period. Industrial RCx would be applicable to the oil refinery segment. An industrial RCx audit can detect steam leaks that need repair.
- b. Monitoring based programs could be structured a variety of ways to help customers better understand the benefits that Retrocommissioning can offer to their process or business. When it comes to natural gas, the ability of monitoring based systems to be cost effectively utilized will need to be evaluated on a case by case basis. If used, Industrial RCx monitoring-based

systems can be used to inform the customer as to irregularities in usage on a more real-time basis. The monitoring can provide real time data to facilitate in either changing customer behavior and/or alerting the customer to needed equipment repair/service.

- c. SoCalGas would try to keep a retrocommissioning program similar in structure to the current retrocommissioning program, but with some variation to address the specific needs and concerns of Industrial and Agricultural customers. Industrial RCx would place significant emphasis on auditing and analysis of business and system specific equipment for optimization opportunities which would improve equipment operational efficiency.
 - d. As noted above, SCG does not currently offer these programs to these specific segments, therefore program manuals are not currently available.
35. Continuous Energy Improvement (CEI): CEI is described in the PIPs as both a statewide program and a component of the Energy Advisor program. Explain.
- a. Is the budget for CEI separate from the budget for Energy Advisor?
 - b. Is any aspect of the CEI budget included in the Energy Advisor budget?

SCG response to Q35:

CEI is a statewide program and functions as a separate subprogram within the statewide Agriculture and Industrial programs (as applicable for each utility). The services offered by the CEI program are critical towards moving customers towards a self-actualized/market transformed approach to energy efficiency planning. Educating the customer about energy planning and the continuous energy improvement cycle will be the focus of the Energy Advisor portfolio of audit services. For more information, refer to the Energy Advisor program implementation plans.

- a. Yes. Funding for all CEI customer activities will be provided through the CEI statewide program budget.
- b. No. Refer to response provided in #35a.

36. Are you considering claiming savings for CEI and retrocommissioning activities? Explain why or why not.

SCG response to Q36:

SoCalGas does not currently have an Industrial/Agricultural retrocommissioning (RCx) program. The SoCalGas plan is prepare a solicitation for an industrial RCx program for the 2013 – 2014 program cycle. Retrocommissioning (RCx) has proven to be an effective tool in the Commercial sector to assist customers to return equipment and system to design or more efficient operating specifications. Subsequent to a successful solicitation process, energy savings will be reported under the Calculated subprogram.

CEI is a non-resource program; therefore, no energy savings will be reported.

37. Explain the reference to incentives for deeper retrofits and describe how the incentive design would be structured.

SCG response to Q37:

In order to further encourage deeper energy retrofits, the IOUs are actively developing a new incentive mechanism for the statewide Calculated program. Although still in the preliminary development stage, it is the intention of the IOUs to pay a bonus incentive for the addition of multiple measure types and/or emerging technologies.

Emphasis will also be given to bundling measures which enhance the overall performance of each individual measure. The IOUs have already begun to work together to develop and investigate options for new opportunities to bundle measures which complement and enhance each other and provide customers greater value through benefits and either increased incentives or incentive adders, benefits and advantages of various options, and determining the financial, cost effectiveness and incremental energy impact of various options.

38. Describe in the "IDSMS Section" of the CEI PIP how the CEI program will serve as an integrated program for purposes of informing IOU strategic

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

planning efforts to develop and promote integrated program design and projects. Also include a table separating each DSM resource (EE, DR, and DG) and describe how each will be promoted in the CEI program. Please describe specifically how the CEI program will coordinate and work with the statewide IDSM taskforce including specific coordination objectives and specific activities that will be pursued to achieve them.

SCG response to Q38:

The CEI program seeks to identify and incorporate any IDSM measures that are of value to our participants. The CEI statewide team is currently awaiting final report of the CEI process evaluation. Subsequently, the team plans to further incorporate the findings of the report to better address integrated program design.

39. Describe specifically how the CEI program will coordinate and work with the statewide WE&T taskforce including specific coordination objectives and specific activities that will be pursued to achieve them.

SCG response to Q39:

SoCalGas is actively collecting lessons learned and case studies for CEI activities in 2010-2012 engagements. This information, along with recommendations from the CEI process evaluation, will be provided to the WE&T leads to help in the development of energy engineering curriculum designers for colleges and universities. The CEI program management team will work collaboratively with the WE&T team, attending the WE&T task force meetings, creating a working group to focus on adding an ISO 50001 Strategic Energy Management System course into the our WE&T curriculum and other training venues where applicable.

HVAC Programs

40. Provide the placemat spreadsheet that includes all of the budget projections and savings estimates for each subprogram that was previously part of the statewide HVAC program and is now a

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

subcomponent of the statewide Residential and Commercial subprograms, including:

- a. Residential Quality Installation (QI)
- b. Commercial QI
- c. Residential Quality Maintenance (QM)
- d. Commercial QM
- e. Commercial Upstream Incentive program
- f. HVAC System Diagnostic Advocacy program

SCG response to Q40:

Please see the SoCalGas response to similar question in EEGA 2153, submitted on July 18, 2012.

In Decision 12-05-015, the Commission directed “the IOUs to split and/or incorporate the HVAC Residential and Commercial Quality Maintenance, Residential Quality Installation, and Commercial Quality Installation sub-programs into the respective Residential and Commercial statewide programs.” The decision also indicated “The IOUs shall consider moving the HVAC Technology and System Diagnostics and WE&T sub-programs into the statewide Emerging Technologies and WE&T sub-programs, respectively. Finally, the IOUs should consolidate the existing Residential and Commercial New Construction programs within their respective market segments, the Statewide Residential and Commercial Programs.” (pp. 160 – 161.)

Consistent with the decision, the IOUs developed their budget and savings forecast for HVAC at the residential and commercial subprogram levels (and not by the noted 2010 – 2012 EE program portfolio sub-programs). HVAC Technologies and System Diagnostics Advocacy and the HVAC Workforce Education & Training (WE&T) subprograms have been integrated into the Emerging Technologies (ET) and WE&T Programs, respectively.

Summary-level information can be reviewed as follows:

- The comprehensive HVAC budget and savings estimates for residential are provided at Appendix D, the “SW-CALS-Residential HVAC” program name.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- The comprehensive HVAC budget and savings estimates for Commercial are provided at Appendix D, “SW-COM-NonRes HVAC” program name.
- The comprehensive HVAC Technology and System Diagnostics budget is included within the Emerging Technologies programs budgets shown at Appendix D.

In the table below are SCG’s incentive budget and savings forecasts for the Residential Quality Installation and Maintenance (QI\QM), Commercial/ Non-Residential HVAC subprogram elements.

2013-14 Program #	HVAC Subprogram	Total Direct Implementation (Incentives & Rebates)	Gross KWH	Gross kW	Gross THM
SCG 3706	Residential Quality Installation and Maintenance (Res QI/QM)	\$250,000	0	0	0
SCG 3712	Commercial /Non- Residential HVAC Sub- Program	\$613,589	0	0	0

41. Provide a detailed record of all major 2013-2014 activities planned for for the Commercial and Residential QI/QM programs, with planned funding for each activity.
- Justify the importance of expenditures in each activity in advancing the QI/QM programs.
 - Justify the budget levels provided with the benchmarks for contractor enrollment, maintenance agreements signed and units maintained.

SCG response to Q41:

Major activities for Residential and Commercial QI and QM are presented on the first lines of the program logic models in Sections 7.e. in each of the Residential and Commercial HVAC Subprogram statewide PIPs.

Additionally, activities in the Direct Implementation—Incentives & Rebates category are presented in Section 4.b. and activities in the Direct Implementation—Non-Incentive Customer Services category are presented in Section 4.c. in each of the Residential HVAC and Commercial HVAC Subprogram statewide PIP. The Residential HVAC and Commercial HVAC budget forecasts, with a breakdown by the major activity categories of Administrative, Marketing & Outreach, Direct Implementation—Non-Incentive Customer Services and Direct Implementation—Incentives & Rebates are presented in Appendix A - Portfolio Cost Effectiveness Analysis and Appendix D - Budget and Savings Placement Tables.

The IOUs plan to allocate funds as appropriate for 2013-2014 Residential HVAC and Commercial HVAC Subprogram activities; see Answer 40 above.

- a. The program logic model diagrams in the PIPs mentioned above demonstrate the causal relationships between the proposed program intervention activities and their intended results in addressing market barriers and achieving short-, medium- and long-term outcomes that align with the HVAC goals in the California Long-Term Energy Efficiency Strategic Plan.
- b. Based on the experience with the HVAC program cost factors during the current 2010-2012 cycle, such as customer and contractor incentives, incentive processing, contractor recruitment, training, and management, marketing development, and program administrative staff, the budget levels provided are required to meet the targets stated for QI and QM in the Residential HVAC and Commercial HVAC Subprogram PIPs. The IOUs will continue to work with participating contractors and program implementers to try to exceed the stated targets. Currently there are no work papers developed to quantify gas

related energy savings to achieve targeted therm savings goals at this time. SCG has planned to coordinate with other IOUs in common-service territory to provide and identify and integrate gas measures savings to be offered through a jointly implemented comprehensive HVAC program.

42. Explain why there appears to be very little QI/QM activity described toward meeting Big Bold Energy Efficiency Strategies or the Strategic Plan goals. How will the QI/QM programs ensure progress toward the Strategic Plan?

SCG response to Q42:

There is QI/QM activity towards meeting the Big Bold Energy Efficiency Strategy and the Strategic Plan goals described throughout the Residential and Commercial HVAC Subprogram PIPs. Major activities are referenced in the ‘Program Rationale and Expected Outcome’ section of the PIPs. Additionally, the program logic model diagrams in the PIPs map the key activities and their connection with the short-, medium- and long-term outcomes that align with ensuring progress toward meeting the HVAC goals in the California Long-Term Energy Efficiency Strategic Plan and the Big Bold Strategy.

43. In its comments on the applications, TURN proposed a residential upstream HVAC program similar to the commercial version which provides incentives to distributors of efficiency units.
- a. Would such a program be feasible for launch during 2013-2014 and what are the barriers, if any? Explain.
 - b. What types of HVAC units should be eligible if such a program were to be launched, and how would you make a determination of which HVAC units would be eligible?
 - c. Provide some historical context for this proposal. Have upstream residential HVAC programs been in place before? If so, provide some analysis of the program’s performance compared to current downstream incentives.
 - d. Provide assumptions and reasonable targets for units of equipment incentivized and energy savings achieved if such a program were to be

launched. Provide low, medium, and high estimates for tons of equipment incentivized and energy savings.

SCG response to Q43:

a. Yes, launching a residential upstream HVAC program during 2013-2014 could be feasible. The IOUs are now exploring opportunities for implementation in 2013-2014 of a limited-scope offering to better understand the opportunity for overcoming some very significant barriers that would need to be addressed before a larger-scale program could be considered. Significant issues affecting feasibility of a residential upstream HVAC program include the following:

- Based on preliminary analysis conducted by IOUs, a residential upstream program would not be cost effective (with a TRC ratio of significantly below 1.0). Since high-efficiency residential HVAC system replacements are considered DEER measures, DEER savings must be used as program reported savings. Based on our analysis, the cost of incentives required to influence the market and drive contractors to participate will be considerably higher than the cost benefits from DEER savings. Most residential HVAC units are split systems where components (such as evaporator and condenser units) can be purchased separately. This prevailing market characteristic results in a large number of system combinations where the combined efficiency is not fully known or defined. While an upstream program can dictate acceptable combinations, it may not offer enough flexibility to contractors, since the selection of system components is driven by size and price rather than efficiency. Paying incentives strictly at the upstream level may not be feasible as distributors do not keep track of where residential equipment is installed. A split incentive with contractors may be necessary, but such incentive arrangement would add to the complexity and cost of program administration.
- SCG currently offers rebates for high efficiency gas furnaces through the single family rebate program, HEER, which historically has had moderate uptake by customers. SCG feels it's current channel of

delivery is the most cost effective and has proven effective working with the Institute of Heating and Air Conditioning to promote the sale and installation of high efficiency gas heating product to distributors and contractors. Feedback from contractors in regards to SCG furnace rebates have deemed them an effective tool to upsell a greater number of HVAC sales to include condensing furnaces to customers. SCG is also willing evaluate the current rebate structure to determine if a potential tiered structure to offer higher incentives for higher energy efficient products as a channel to move the market for condensing furnace product installations would prove cost effective. SCG is also exploring potential opportunities to collaborate with electric service providers, IOUs, and municipalities to leverage existing electric HVAC program offerings to integrate gas measures to offer a comprehensive program offering. The current SCG rebate channel also provides for effective installation data collection, inspection opportunity, and addresses AB454 (permitting) for products installed, which eliminates a major barrier of the upstream channel.

- b. If such program were offered, it should consider all applicable equipment types, including split, packaged, and direct/indirect evaporative cooling. Equipment eligibility would be determined based on the level of efficiency.
- c. Due to the barriers outlined in (a), the IOUs have not historically implemented a residential upstream program offering. During the current 2010-2012 program cycle, the Upstream HVAC Subprogram PIP included language that would have enabled the offering of residential upstream measures; however, the statewide IOU team did not add such measures to the program due to the aforementioned barriers. SCG will continue to work with the HVAC IOU Statewide Team and Western HVAC Performance alliance to evaluate the effectiveness of upstream incentives for future consideration and implementation.
- d. This is not available at this time; however, the IOUs are open to collaborating with Energy Division and interested stakeholders to further explore how the above barriers may be able to be addressed to improve

the cost-effectiveness and long-term feasibility of a statewide residential upstream offering.

44. TURN also proposed to pilot residential QI/QM programs in hotter climates during 2013-2014. Provide answers to the following:
- a. Would it be feasible for the IOUs to launch this proposed program during 2013-2014?
 - i. If so, would you focus on one particular HVAC program or would you launch both proposed programs as pilots? Explain how you would focus your resources.
 - ii. If not, explain why it would be unnecessary or impossible to launch a pilot residential QI/QM program in 2013-2014.
 - b. If such a program were launched, what climate zones or markets would you target?
 - c. Provide any thoughts and assumptions on reasonable targets for number of households and energy savings, with low, medium, and high estimates.

SCG response to Q44:

- a. The IOUs’ understanding of TURN’s proposal is to increase HVAC EE offerings and accelerate HVAC offering ramp-up in the Residential Program, including in the revised Whole Home Upgrade Program (WHUP) Basic Path, focus these HVAC elements on hotter climate zones, increase related HVAC EM&V research efforts, and increase permit compliance. The IOUs agree with these objectives and think it is indeed feasible to address them in 2013-2014.
 - i. The focus of the IOUs to address these objectives would be as follows:
 - Improve upon existing programs instead of launching pilots that may duplicate what can be incorporated within an existing program.
 - Add high-efficiency HVAC equipment as an option in the enhancement of the WHUP Basic Path.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- Accelerate the planning of revisions to the WHUP Basic Path in order to offer the enhanced Basic Path by the beginning of the 2013-2014 transition period, including presenting a proposal to all interested stakeholders in a workshop planned for early October, 2012.
 - SCG is researching and evaluating the integration of gas measures into Residential HVAC QM offering.
 - SCG will continue to work with the HVAC industry and other stakeholders to integrate potential gas measure and develop a comprehensive revised approach to Residential HVAC QI that can lead to the sustained market transformation envisioned in the Strategic Plan.
 - Require customer and contractor certifications of permit code and licensing compliance and permit numbers on rebate applications for Residential HVAC and WHUP Subprograms.
 - Focus program resources for contractor recruitment and target marketing primarily on hotter climate zones.
 - Continue to collaborate with ED on 2013-2014 HVAC EM&V research plans to address important knowledge gaps.
- ii. Not applicable. See 44.a. above.
- b. SoCalGas supports efforts to inform and encourage customers in all climate zones to install the most efficient HVAC system in a manner that is in consistent with the IOU’s HVAC and Whole Home programs.
- c. The targets and energy savings for the program enhancement activities mentioned are already incorporated into the planned targets and energy savings for the WHUP and Residential HVAC Subprograms.

Lighting

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

45. Incentives for LEDs are provided as placeholders until the LED quality standard is adopted. Given that it is unknown when the LED quality standard will be finalized and approved by the CEC, how will you modify the lighting program when the standard is approved?

SCG response to Q45:

Not applicable (As a gas-only utility, SoCalGas does not have a lighting program).

46. How will the cost of the LED quality standard bulb impact:
- a. the estimates provided in the applications for LEDs?
 - b. the installation estimates for LEDs?
 - c. The incremental measure cost estimates for LEDs?

SCG response to Q46:

Not applicable (As a gas-only utility, SoCalGas does not have a lighting program).

47. How will the answers to the question immediately above impact the cost-effectiveness of the lighting programs and the overall portfolio application?

SCG response to Q47:

Not applicable (As a gas-only utility, SoCalGas does not have a lighting program).

48. The utility applications list several LED type measures with various replacement types, e.g., 30-40 W Replacement Lamps, 45-55 W Replacement Lamps.
- a. Assuming the LED quality standard is adopted, how would the utilities treat the base-case bulb that the LED quality standard is replacing?
 - b. In other words, would the LED quality standard be replacing incandescent bulbs, CFLs of various wattages, or other LEDs?

- c. For the various base case situations, how would this impact the utility energy savings and cost-effectiveness of the lighting program and would this have any significant effect on portfolio level cost-effectiveness? If so, what would be the effect?

SCG response to Q48:

Not applicable (As a gas-only utility, SoCalGas does not have a lighting program).

Water-Energy Nexus Issues

49. Provide a document that compiles, describes, and synthesizes all water-energy nexus activities to be undertaken in the 2013-2014 period (similar to a PIP).
- a. Describe efforts that will be made to target industrial and agricultural customers and small and medium-sized water agencies
 - b. Include a detailed budget broken down by water-energy nexus activity
 - c. Under what auspices will leak detection be offered?
 - d. Do you anticipate leak detection services leading to any kind of customer impact projects for the IOUs?
 - e. Will there be estimated savings as part of leak detection?

SCG response to Q49:

In SoCalGas’ Proposed Program Implementation Plans, SoCalGas plans to address several efforts in support of the water-energy nexus. SoCalGas will focus its water-energy nexus efforts with water agencies in areas that use natural gas engines as the source to deliver and treat water. Under the Commercial, Industrial, Agriculture (CIA) and Residential PIP, SoCalGas will continue to offer hot water measures and services through the “calculated” and rebate approach. Example measures that SoCalGas currently offers in the CIA sector are gas engine water pump test/rebuild and cash for kitchens. For the Residential customers, one example offered is low flow showerhead kits. See appendix A for more example measures. SoCalGas intends to continue offering these water-energy measures for the proposed 2013/2014 portfolio. SoCalGas also intends to explore new measures with the CIA program. With these existing

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

and potential new measures, SoCalGas will collaborate even closer with the industrial/agricultural customers and small/medium-sized water agencies by marketing, outreach, and providing education to these specific customers in relation to the water energy nexus. SoCalGas has for some time offered water energy nexus measures integrated throughout its EE portfolio. Because many of the associated funds are part of larger budgets, not all water-energy nexus activities can be tied to a specific budget amount. See Appendix A for a list of water-energy nexus activities that SoCalGas proposes for 2013-14.

Under a proposed 3rd Party solicitation, SoCalGas will administer the leak detection and pressure management measures to the extent the Water Agency uses gas engines, or the end use customer has natural gas usage. With the amount of interest from water agencies that offering leak detection services has garnered, SoCalGas is anticipating at least one leak detection project for a natural gas system. SoCalGas also anticipates energy savings from this measure. The savings will be estimated as part of the "calculated" incentive program. Also within this RFP, SoCalGas would explore new measures, with the intent to work in parallel with the other energy utilities. SoCalGas has not yet developed a detailed budget for this effort because SoCalGas is bidding out the 3rd Party Program.

SoCalGas plans to take savings credit for only the “direct” energy savings from any water-energy measure, as there is no supported data to include the “embedded” savings

To fully understand the water energy nexus as applicable to natural gas, SoCalGas plans to include research under the planned 3rd Party program.

Expected research items are:

- a. Closed Loop Cooling mitigating evaporative cooling and blow down in cooling towers.
- b. Water Use Efficiency in irrigation and distribution of recycled water and onsite water treatment.
- c. Waste water treatment plants
- d. Ground Water Recharge
- e. Sustainable Landscaping

The proposed 3rd Party Program will augment the CPUC Staff research by researching the ancillary benefits of water (i.e. embedded energy) under the proposed 3rd Party Program. As these results become adopted, SoCalGas will expand cost-effective water/energy nexus programs, in coordination with other energy utilities, water agencies and municipalities.

Additionally, SoCalGas is currently studying the water-energy nexus with a local government and a water municipal district. SoCalGas is also working with Metropolitan Water District and other water organizations to understand how to expand the gas component of the water energy efficiency within their respected organizations. SoCalGas is also currently analyzing some water agencies programs to find synergies in which SoCalGas can collaborate to offer them savings incentives to encourage customer participation resulting from water use efficiency and conservation. The incentives will go to the end use customer and also the water agency implementing water use efficiency and conservation.

Appendix A

SoCalGas water-energy nexus measures are listed below:

- Residential
 - High Efficiency (HE) Clothes Washer
 - HE Dishwasher
 - Low Flow Showerheads
 - Thermostatic Shut-off Valve
 - Water Kits
 - Educational Audits
- Commercial and Industrial
 - Audits
 - Appliances
 - HE Clothes Washer
 - HE and Super HE Dishwasher
 - Electric Storage Water Heater
 - Boilers
 - Process Heating
 - Hot Water Heating
- Agricultural
 - Agricultural Pump Tests and Retrofits

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- Gas Engine Water Rebuild
- Engine Upgrade
- Electronic Ignition Upgrade
- Well Rehab (Future)

Program/SubProgram	Water-Energy Measure(s)	Budget⁵
Energy Advisor (EA)	Information on energy and water savings strategies; may offer energy saving starter kit which includes faucet aerators and low-flow showerheads; will include collaboration with water agencies	\$4,021,025.00
Multi-Family Energy Efficiency Rebates (MFEER)	Water heaters, clothes washers, dishwashers, water clothes washers, demand control for recirculation pumps	\$2,411,550.00
Whole Home Upgrade Program (WHUP)	Water heaters, pipe insulation, low-flow showerheads, thermostatic shut-off valves, and boilers	\$10,696,979.00
California Advanced Homes Program (CAHP)	Dishwashers, aerators, showerheads, clothes washers	\$5,713,387.00
Commercial Calculated Incentives Program	A broad spectrum of measures with calculated energy reduction associated with water use (e.g. gas engines for water pumping)	\$9,239,848.00
Commercial Deemed Incentives Program	Low-flow showerheads, ozone laundry, ice machines, connectionless steamers, HE clothes washers	\$6,964,101.00

⁵ The budget values shown represent entire program budgets. Programs are not sufficiently compartmentalized to segregate water/energy values only.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

<p align="center">Industrail Calculated Incentives Program</p>	<p>A broad spectrum of measures with calculated energy reduction associated with water use (e.g. gas engines for water pumping)</p>	<p align="right">\$27,658,191.00</p>
<p align="center">Agricultural Calculated Incentives Program</p>	<p>A broad spectrum of measures with calculated energy reduction associated with water use (e.g. gas engines for water pumping)</p>	<p align="right">\$4,045,232.00</p>
<p align="center">Energy Efficient Water Pumping</p>	<p>Pump tests for agricultural, commercial and industrial customers</p>	<p align="center">Embedded within CIA Calculated Budget</p>

¹The budget values shown represent entire program budgets. Programs are not sufficiently compartmentalized to segregate water/energy values only.

Financing

50. Are you planning to fund the CHF MIST program in your territory in 2013-2014? At what budget level?

SCG response to Q50:

SoCalGas plans to fund CHF MIST program in its service territory in 2013-2014 and will work with SCE and CHF program administrators to develop an appropriate budget to meet the anticipated demand.

51. Provide a budget breakdown for on-bill financing, previously-ARRA-funded financing programs, and new pilot programs. Clearly explain how the total budget adds to \$200 million statewide. (OP 22)

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**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

SCG response to Q51:

Proposed 2013-2014 Statewide Finance Program Budget

	PG&E	SCE	SoCalGas	SDG&E	Statewide Total
OBF Program Budget	\$38,000,000	\$63,506,000	\$1,727,378	\$697,435	\$122,930,814
OBF Loan Pool*	**	***	\$2,000,000	\$17,000,000	
ARRA- Originated Finance Programs	\$4,000,000	\$13,300,000	\$4,000,000	\$2,225,224	\$23,525,224
New Finance Offerings	\$31,000,000	\$9,237,000	\$10,467,622	\$12,077,309	\$62,781,931
Total Financing Programs Budgets	\$73,000,000	\$86,043,000	\$18,195,000	\$31,999,969	\$209,237,969

For PG&E and SCE, the EE-funded OBF program budgets include their loan pool funding; PG&E's budgets are from its filed Program Implementation Plan and SCE's budgets are from its filed Placemat Budgets. SoCalGas' and SDG&E's EE-funded OBF program budgets do not include their loan pools which are from non-EE tariff rates. SoCalGas and SDG&E requested their EE-funded OBF program budgets in their filed Program Implementation Plans and their non-EE loan pools in their filed testimonies

** PG&E expects that \$32 MM of the \$38 MM will be used for the loan pool

*** SCE expects that \$56 MM of the \$63.5 MM will be used for the loan pool

**** SoCalGas' budgets for ARRA-Originated Finance Programs and New Finance Offerings are placeholders until more detailed budgets are developed

52. Explain process and timeline for selecting and continuing previously-ARRA-funded programs during 2013-2014 (not just 2012).
- Which specific programs do you expect to fund and at what budget levels in 2013-2014?
 - Do you expect the programs selected to be the same as the ones selected for 2012 funding. If not, why not?
 - What savings estimates are associated with the funded programs?

SCG response to Q52:

In considering the allocation of ratepayer funding for the purposes of continuing ARRA Finance programs, SoCalGas used the criteria established by the CPUC in D.12-05-015 (page 112-113) for evaluating the success of ARRA Programs, namely:

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

1. Potential for scalability to larger target markets.
2. Ability to leverage ratepayer funds with private loan capital.
3. Ability to test unique and/or new program design and delivery options.
4. Ability to serve previously-unserved or under-served markets.
5. Ability to offer low interest rates to consumers, including loan programs that make use of “flexible capital”
6. Effective utilization of total combined ratepayer funding “best bang for the buck.”

In addition, SoCalGas also used IOU evaluation criteria; namely,

- Level of administrative costs (target < 10%)
- Coordinate with and enhance utility Whole House program to drive customer participation.
- Demonstrated ability to serve eligible utility customers.
- Duplication with other existing or planned finance programs.

SoCalGas used the above criteria for 2012 selections, which will also be applied to furthering ARRA programs into 2013. SoCalGas is currently negotiating details with each of the parties (noted in “a” below), with the intent to have contracts in-place by January 1, 2013.

- a. SoCalGas plans to fund the same set of previously-ARRA-funded programs selected for EE funding in 2012 plus one new program (the CHF MIST):
 - I. County of Santa Barbara (with PG&E and SCE):
 - a. The emPowerSBC program
 - II. City of Los Angeles
 - a. The LA Commercial Building Performance Partnership
 - b. The Gateway to Green program
 - c. General Services Department effort based on DOE funding for Qualified Energy Conservation Bonds (QECBs)
 - III. County of Los Angeles (with SCE)
 - a. Single Family LLR
 - b. PACE
 - c. Public Agency LLR

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- d. Public Building RLF
 - e. EUCa HVAC Contractor Training
- IV. CHF MIST (with SCE)

SoCalGas is in discussions with each party, including negotiations over budgets and with the goal to have contracts in place by January 1, 2013.

- b. No, in addition to the programs selected in 2012, SoCalGas expects to also fund the CHF MIST program. Furthermore, the Ecology Action program is a marketing effort and will be coordinated with ME&O.
- c. As these programs develop, SoCalGas plans to work with its M&V group to develop savings estimates with input from the program administrators.

53. Explain how you will go about estimating or collecting data to estimate incremental energy savings from financing programs to ensure that financing becomes a “resource program” in reality.

SCG response to Q53:

SoCalGas believes that estimation of incremental energy savings should generally mirror the approach used for other resource programs within the portfolio: Project specific estimates of energy savings would be determined with Technical Review, eligibility, and validation methodologies mirroring current approaches used for other current resource programs.

Estimated energy savings would be provided for individual projects, and energy savings claims would be made at the time of project loan funding. Project specific data element requirements would be developed for unique Finance sub-program approaches with an aim towards consistency and standardization. The appropriate data warehouse for this data needs to be determined.

54. “Site bundling” in the on-bill financing program appears to be only offered for institutional customers. Are chain stores also eligible? If not, explain why not.

SCG response to Q54:

The “site bundling” feature is not offered to chain accounts, in part, to avoid overlapping with the Direct Install program. Many chain stores eligible for the Direct Install program have been found to have outdated, inefficient energy equipment that needs to be replaced with new, energy efficient models. The Direct Install program best addresses this need.

Larger chain accounts, especially those that are part of large regional or national companies, are viewed as having superior access to capital and able to secure financing from traditional sources. Additionally, larger individual chain store locations generally have larger projects that exceed the \$5,000 OBF loan minimum threshold. Consequently, large retail chain store networks most likely will not need site bundling to qualify for OBF.

55. Submit program flow charts and logic models for all financing activities except the new pilots.

SCG response to Q55:

Attached are:

- OBF program flow chart (Please see Attachment 1 to this data request) and logic model (Please see Attachment 2 to this data request).
- The program flowchart (please see attachment 3 to this data request) and Logic Model Matrix (please see attachment 4 to this data request) for the emPowerSBC program administered by the County of Santa Barbara.
- The program flowcharts for County of Los Angeles’ Finance Program in general (please see attachment 5 to this data request) and specifically for Public Building Financing LLR program (please see attachments 6 and 7 to this data request) and PACE Non Residential (please see attachment 8 to this data request).

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

The program flowcharts and logic models for the rest of Los Angeles County-administered ARRA-originated Finance programs and those for CHF MIST and City of Los Angeles are not yet available.

Attachment filenames to this data request are listed below for convenience. To be able to access a live version of the documents, SoCalGas has posted the live documents on its external website at:

<http://www.socalgas.com/regulatory/A1207003.shtml>.

Attachment filenames:

- ACR Scoping Memo Data Request Q55, Attachment 1.pdf.
- ACR Scoping Memo Data Request Q55, Attachment 2.pdf.
- ACR Scoping Memo Data Request Q55, Attachment 3.pdf.
- ACR Scoping Memo Data Request Q55, Attachment 4.pdf.
- ACR Scoping Memo Data Request Q55, Attachment 5.pptx.
- ACR Scoping Memo Data Request Q55, Attachment 6.pdf.
- ACR Scoping Memo Data Request Q55, Attachment 7.pdf.
- ACR Scoping Memo Data Request Q55, Attachment 8.xlsx.

- 56. Explain what portion of the market the current on-bill financing program can serve, given its terms, and how this relates to the Harcourt Brown & Carey Needs and Gaps Assessment findings.

SCG response to Q56:

The portion of the market the current On Bill Financing program can serve are those qualified nonresidential customers with qualifying projects. Qualified customers are those who have been active customers of the utility for at least two years and meet utility’s credit requirements. Qualifying projects for business customers are those with 5-year or better simple project payback and total installed project cost less rebates/incentives to be within \$5,000 and \$100,000 per meter. Qualifying projects for taxpayer-funded institutional customers are those with 10-year or better simple project payback. Maximum loans for taxpayer-funded institutional customers are \$250,000 per meter for local governments and \$1MM per meter for State of California accounts.

SoCalGas does not have a comparison to the Harcourt Brown & Carey Needs and Gaps Assessment to submit at this time.

57. Do you have any plans to pilot on-bill repayment and/or line item billing with residential single family customers in 2013-2014? If yes, describe your plans, timeline, and budget.

SCG response to Q57:

SoCalGas does not have such pilot plans at this time, with consideration given to lending law implications.

58. Explain in detail where there is overlap, if any, between your financing programs and those of the RENs. Provide a table that compares the REN/IOU financing program descriptions, market segments served, and the budget amount allocated to each subprogram.

SCG response to Q58:

Please see the Attachment file "ACR Scoping Memo Data Request Q58, Attachment 1.xlsx." to this data request for the requested comparison. To be able to access a live version of the document, SoCalGas has posted the live document on its external website at: <http://www.socalgas.com/regulatory/A1207003.shtml>.

59. Is duplication or overlap inherently undesirable? Or might there be cases in which overlap would be justified to simultaneously test multiple finance strategies in the same market segment? Explain.

SCG response to Q59:

Duplication or overlap may not be inherently undesirable in all circumstances, however, it is probably not a good approach to test multiple finance strategies in the same market segments in the next two years, in part for reasons noted below. SoCalGas recommends the Commission allow the market for these products first take hold and mature, and then revisit to determine whether overlap is prudent:

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- a. Confusing to customers: too many choices can lead to delay in financing product selection, in particular for those potential customers who don’t have immediate replacement needs.
 - b. Not the most effective use of ratepayer funding: Funding competing multiple finance programs in the same market segments at the same time is likely not the most efficient use of ratepayer dollars, for example, due to the unnecessary duplication of administrative/ marketing costs.
 - c. Introducing multiple programs at the same time in the same market also translates to smaller portfolios for each program and reduces the attractiveness of these loan portfolios to secondary security markets. This could impact the desire of a lender to participate (if the potential market share is perceived to be that much smaller).
60. Describe plans or efforts to coordinate with the CAEATFA loan loss reserve program.

SCG response to Q60:

The IOUs have already tasked the Expert Finance Consultant team to engage CAEATFA to understand options for coordinating with them, and their capabilities and capacity to manage any loan-loss reserve program under the yet to be defined pilots. Whether or not there are options to using CAEATFA is part of the development and design process that the Consultant is conducting.

Integrated Demand-Side Management (IDSM)

61. Regardless of whether Market Transformation Indicators (MTIs) were transmitted in the staff guidance on 2013-2014 MTIs, provide a list of MTIs pertinent to portfolio-wide IDSM efforts.

SCG response to Q61:

The Guidance Decision (D.) 12-05-015 directed the utilities to include Market Transformation Indicators (MTIs) in the PIPs of programs identified as “market transformation-oriented” programs (p.353). IDSM was not identified as a market

transformation-oriented program, and, therefore, no MTIs were proposed in the 2013-2014 IDSM PIP. The IOUs do not have new MTIs for IDSM to introduce at this time. Please note the market transformation experts from the MTI workshop unanimously agreed that the creation of new market indicators should be one of the last steps in a market transformation program planning methodology, as summarized on p.3 of DRA's Comments on the November 7, 2011 Market Transformation Indicator Workshops (filed 11/21/2011):

B. The indicators contained in the ED MTI Spreadsheet should not be finalized outside the sequenced 13-step market transformation program planning methodology.

The determination of market transformation indicators cannot be divorced from the sequenced 13-step market transformation program planning methodology. This is because the indicators should measure progress toward the objectives of a specific market transformation program and the desired "difference" the program logic model is designed to effect. The determination of market transformation indicators, which is the 10th step of the sequenced 13-step methodology, should follow and not precede the other steps in the market transformation program planning methodology. How can the appropriate market transformation indicators be determined if one has not yet precisely defined the market, the leverage points, the barriers, the intervention, the desired "difference" from a baseline, and the data set and data collection strategy? Failure to define the market, the leverage points and the other building blocks for a successful market transformation strategy before determining market transformation indicators is akin to putting the cart before the horse.

Such an out-of-sequence approach will likely result in measuring the wrong things, with the result that these incorrect metrics will improperly influence how a program will be planned, designed, executed, evaluated, and adjusted. This will make it difficult to recognize unwanted results at the earliest possible stage of program implementation, when it is less expensive to adjust the program to improve outcomes. The result will be less useful and less actionable market transformation and progress indicators, inaccurate or misleading evaluation outcomes, delays in transforming markets, and imprudent investment of ratepayer capital. Therefore, DRA recommends development of MTIs as part of the programs proposed for the bridge years and beyond.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

The IOUs offer to work with Energy Division to consider appropriate MTIs for IDSM through the MTI Project Coordination Group which will be established by Commission staff.

62. Include a table indicating estimated budgets for IDSM supporting activities occurring in other statewide programs including a brief description each line item activity.

SCG response to Q62:

SoCalGas does not have budgets for IDSM supporting activities in other statewide programs. All Taskforce activities, training and associated materials are budgeted within the Statewide IDSM program.

63. What other funding buckets will the IOUs “explore” to be leveraged (e.g., CSI ME&O, RD&D funding) to support IDSM activities?

SCG response to Q63:

To support the progression of IDSM activities during the 2013-2014 program cycle, all areas of customer programs and assistance will be considered: including EE, ESAP, CSI Thermal, Self-Gen, ET, IDEEA365 etc. As such, SoCalGas may explore leveraging funding from various programs which receive a direct benefit from an integrated program implementation approach.

64. What are the specific activities the IOUs will undertake to coordinate between the IDSM taskforce and the Emerging Technologies Coordinating Council? How will these activities be pursued? What are the deliverables to report and track coordination activities between the ETCC and IDSM taskforce?

SCG response to Q64:

The IOUs plan to expand current coordination between the IDSM Task Force and the ETCC by continuing to have members of the IDSM Task Force participate in ETCC meetings on a regular basis and track the integrated technologies

presented at these meetings. The IOUs have also established a subcommittee of the IDSM Task Force to specifically expand integrated ET tracking and reporting efforts.

Deliverables include the identification of integrated technologies and opportunities, since integrated systems that are identified through ET efforts present a great opportunity to package offerings to customers with combined EE and DR (for electric utility, and CSI or other programs for SoCalGas where practical) incentives and capabilities. Coordination activities will be reported in the IDSM Quarterly Report.

65. For pre-existing pilots from 2010 - 2012, describe how the new proposals are different from the last program cycle. How will they improve promoting IDSM in 2013 – 2014 (including specific activities and descriptions), and the associated budgets for each. Do the same for any new 2013 – 2014 pilot programs (e.g., CEI). How will they promote IDSM and associated budgets?

SCG response to Q65:

SoCalGas’ Local Sustainable Communities (SC) Pilot will be continued in 2013 – 2014 and funded through the IDSM program. SoCalGas has included a two-year budget of \$250,000 for the Sustainable Communities Pilot activities. The objective of the SC Pilot is to develop a set of case study projects to demonstrate integrated, sustainable design, specifically how and when decisions are made. To that end, the SC Pilot will leverage resources from core programs such as EE, ET, and CSI, to provide support for developers and design teams in the planning process. The program will continue to serve as a framework for the design and building of communities that support the environment through energy and resource efficiency. SC helps to enhance quality of life by protecting and preserving natural resources and improving economic development. Incentives, design assistance and educational opportunities are made available to developers, building owners and design teams that construct highly energy efficient buildings with sustainable design and long-term energy efficiency.

This innovative program is envisioned as a flagship program, providing the path for all other new construction programs (California Advanced Homes Program,

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Savings By Design Program) in meeting California’s long-term energy efficiency goals, including Zero Net Energy (ZNE) Homes by 2020 and commercial ZNE by 2030. This program is intended to enable market transformation, resulting in measurable energy efficiency, integrated demand response and distributed generation (for electric utilities), renewable and natural resource savings while optimizing the long-term ecological, social and economic health of California. It accomplishes this by comprehensively integrating the ‘vertical’ development (buildings and their components) with the ‘horizontal’ development (land and utility transportation infrastructure) over the full planning horizon. This holistic approach to program design and implementation is coupled with a new management model and evolutionary improvements in energy, water and air quality savings over the product life.

The pilot project (Rancho Mission Viejo) selected to participate in SC in the 2010-12 program cycle did not proceed as expected. The objectives filed for the SC Program Implementation Plan (PIP) were very much tied to the construction cycles of the selected pilot project. Because of the inactivity of the pilot project, SC terminated involvement in this project, and sought other alternative projects.

In 2011, SoCalGas evaluated three potential Sustainable Communities projects, identified a viable candidate, and concluded a Memorandum of Understanding with project developers in 2012. With outside consulting assistance, SoCalGas is providing design assistance for the master planned community and support on water related issues. The project is currently in design phase and is expected to commence construction of homes in 2015. Several design charrettes (no more than 5) are planned in 2012 and 2013. SoCalGas’s contract with outside contractor(s) includes: a training component, consisting of: Training Modules, In-Person Training, A Digital Learning Center, and related hardware for the Digital Learning Center. SoCalGas is currently exploring several potential communities, including joint venture projects with electric utilities to support development of a diverse set of case studies. All these activities will continue in 2013-2014. SoCalGas will also actively seek to add new Sustainable Communities projects.

66. Describe why the following elements are deleted from the proposed PIP and why the utilities believe this complies with previous Commission

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

decisions (page numbers correspond with the PG&E redlined version but questions are applicable to all IOUs unless specifically indicated):

- a. Description of Strategic Plan activities (p. 2)
- b. ME&O Coordination Efforts with IDSM Taskforce (p. 2)
- c. References to AB 51 in PG&E’s PIP (p.3)
- d. Objectives to design effective metrics to measure the progress of IDSM and report to the CPUC...” in PG&E’s PIP (p. 4)
- e. Language describing uses for online and onsite audits (p. 8)
- f. Most of the narrative describing Pilots (p. 13)
- g. Pilot metrics as part of the issues the quarterly report will include (p. 21)
- h. The language describing “regular meetings and quarterly reports” as IDSM taskforce objectives (p. 21)
- i. The section on “internal and external barriers to integration” (p. 21)
- j. The language indicating the taskforce will “work with different programs and delivery channels...” (p. 25)
- k. Language describing CPUC staff participation in the taskforce? (p. 25)

SCG response to Q66:

- a. Description of Strategic Plan activities (p. 1813). The text was removed since it is redundant; page 1814 describes the impetus for IDSM as the Strategic Plan.
- b. ME&O Coordination Efforts with IDSM Taskforce (p. 1814). The text was removed since it is redundant; the top paragraph on page 1814 summarizes Task Force responsibilities, one of which is, “(coordinating) with the statewide Marketing, Education and Outreach (ME&O) efforts.”
- c. References to AB 51 in PG&E’s PIP (p.1814-1815). This reference was removed since it is outdated (AB 51 did not make it out of the senate committee); it should be removed from all IOU PIPs.
- d. Objectives to design effective metrics to measure the progress of IDSM and report to the CPUC are addressed...” in SoCalGas PIP (p. 1815 - 1825).
- e. Language describing uses for online and onsite audits can be found in SoCalGas final version of the Commercial PIP (p. 643-645).
- f. Most of the narrative describing Pilots (p. 13). SoCalGas Sustainable Communities Pilot was formerly in the New Construction portfolio

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

during PY 2010-12. In 2013-14 the SC Pilot was submitted as part of the IDSM program.

- g. Pilot metrics as part of the issues the quarterly report will include (p. 21). This language was removed since no new market transformation indicators were developed for any program; there will be metrics pending direction from the Commission on a process and timeline.
- h. The language describing “regular meetings and quarterly reports” as IDSM taskforce objectives (p. 21). The text was removed since it is redundant; page 1818-1819, 1821, 1822, and 1827 provide this information.
- i. The section on “internal and external barriers to integration” (p. 21). This text was removed since it was ambiguous and confusing. The remaining text is clear and more descriptive.
- j. The language indicating the taskforce will “work with different programs and delivery channels...” (p. 25). The text was removed since it is redundant; pages 1819, 1820, and 1828 discuss working with different programs and delivery channels.
- k. Language describing CPUC staff participation in the taskforce? (p. 25). The text was removed since it is redundant; pages 1815, 1822, and 1823, discuss CPUC staff participation in the Task Force.

Third Party Programs

- 67. Utilities provided Third Party Procurement Tables in the applications, including all services provided to the IOUs by third parties and relevant information about those services. Within these tables, each IOU identified “whether service is provided on a performance basis” and, if so, a “description of performance basis terms and conditions, as applicable.”
 - a. To build on this initial data entry, each IOU should provide a detailed description of how risk of program performance is allocated through each third party contract identified as serving on a performance basis.
 - b. Each IOU should explain how it determines the appropriate risk allocation.
 - c. Explain how a contract performing on a “fixed unit price” basis differs from a “hybrid” basis.
 - d. Explain how it is determined whether the contract should be fixed unit price or hybrid.

SCG response to Q67:

- a. Each of the programs listed as performance based in SoCalGas' procurement table has a large proportion of the program's budget tied to performance of program services. Risk of program performance is, therefore, mainly borne by the contractor, although the utility still must actively manage the contract to help ensure that the utility's risks are minimized. With resource programs, these services are energy savings. For non-resource programs, these services are not necessarily directly connected to energy savings and may include audits, curriculum kits, or emerging technology reports (among other services); however, the utility strives to connect services to energy savings as much as possible.

Although SoCalGas' contracts are primarily tied to delivery of services, a portion of the contract is not performance-based, but provides compensation on a time and materials (T&M) basis. Aspects of the contract that are T&M could include marketing and administrative expenses, start-up costs, and other tasks that are not easily tied to specific deliverables.

- b. SoCalGas determines the appropriate risk allocation associated with each contract primarily on the scope of services being performed and a vendor's ability to influence (not control) the outcome. SoCalGas generally pays time and materials for defined services such as start-up cost, marketing and reporting, but makes payments associated with savings achieved, which is variable based upon performance.
- c. Contracts based on a "fixed unit price" are those that are 100% performance-based and, therefore, only compensate contractors based on delivery of identified services. Hybrid contracts have a portion that is performance-based (or fixed unit price) and a portion that compensates the contractor on T&M basis for other activities such as marketing or administration.
- d. The Statewide RFPs directed contractors to describe how they proposed to be compensated, whether on a fixed unit price or hybrid basis. Contractors primarily determined how to bid their proposals although

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

RFPs strongly encouraged that a large portion of the compensation should be in the form of pay for performance.

68. Provide a detailed description of the IDEEA365 and plan for how it would be used in 2013 and 2014.
- a. Provide further explanation of the advantages and disadvantages of approving IDEEA365 as a means of soliciting new third party programs as compared to solicitation models from previous cycles.
 - b. Clarify whether you propose IDEEA365 to be the sole solicitation mechanism for the 2013-2014 portfolio period or whether additional solicitations may be used.

SCG response to Q68:

The IDEEA365 program was designed to respond to the Commission’s request in Section 17.2 of Decision 12-05-015. The Commission states, “In our guidance to the utilities in A.08-07-021, we “found merit in the proposal of some parties for a ‘rolling’ budget cycle” and directed the IOUs to explore this approach with parties and Staff and submit proposals in their applications.” IDEEA365 is designed to allow contractors to submit ideas through Requests for Abstracts (RFAs) for new programs in 2013. These ideas will then be used to develop RFPs to solicit applications with the aim of implementing programs as soon after the CPUC approves utilities’ applications.

IDEEA365 was also explained in the SoCalGas testimony, pp. 98 – 99, as follows:

“The Joint IOUs propose a new cross-cutting third party program, the IDEEA365 Program, designed to allow for continuous introduction of innovative ideas and technologies into the EE portfolio. Specifically, the IDEEA365 Program will create a mechanism to solicit competitive offers year-round (until the budget is depleted) for programs that produce cost effective energy savings. All submitted abstracts will be scored using consistent statewide criteria, such as cost-effectiveness, innovation, feasibility, portfolio fit, comprehensiveness, opportunities for deep savings, and supplier diversity.

The Joint IOUs propose to design two types of solicitation. The first, Targeted Solicitation, will support identified program and market needs and technologies,

such as, the water-energy nexus and hard-to-reach markets. The second type of solicitation promotes innovation on the part of third parties, seeking service providers who develop and deploy emerging technologies, or have promising new ideas for creating energy savings.

The goal of this program is to address the expansion and quality of energy efficiency programs implemented by third parties and to streamline the solicitation process and subject to Commission approval, allow for a rolling portfolio. This program will provide resources and accessibility to the solicitation process by third parties and will encourage comprehensive innovative programs. It will also assist in overcoming the participation barriers to third parties who may be qualified for, but new to the energy efficiency bidding process.”

- a. The advantages of approving IDEEA365 are that it opens up opportunities for contractors with good ideas for new programs to submit their ideas on an ongoing basis, to all the IOUs at one time, and using one web location. This would allow for the new programs to be reviewed by all utilities in a more timely fashion. The process also allows the utilities to proactively issue RFPs to third-parties mid-cycle based on portfolio needs and stakeholder input.

The main disadvantage of this process would be that all funds will not be committed at the beginning of the cycle, which may delay realization of energy savings.

- b. SoCalGas is proposing that IDEEA365 be the primary venue for additional solicitations that have not been included in its current application to the CPUC.

69. Describe what sub-programs will be addressing the MUSH market.

- a. What is the percentage increase of third party programs that will be targeting the MUSH market?

SCG response to Q69:

Currently, there are two third party programs (competitively bid programs and part of 20% portfolio funding) that address the MUSH market. The Program for

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Resource Efficiency in Private Schools (PREPS) provides detailed energy efficiency audits and has performance goals to assist private schools in completing projects in-line with SoCalGas’ core commercial programs. Also, the LivingWise Program provides curriculum and teacher training for 6th grade students.

SoCalGas has chosen per policy manual direction to use the Local Governmental Partnership and Local Institutional Partnership to address the municipal and university portion of the MUSH market.

As of this writing SoCalGas is evaluating at least two additional third party programs for this sector program. If they are added, the percentage increase of third party programs that will be targeting the MUSH market would be 100%.

Local Government Partnerships (LGPs)

70. In this funding cycle, are you proposing an expansion of LGPs? If so, do you define expansion by the number of LGs participating, the geographic scope, or the funding level? Explain.

SCG response to Q70:

SoCalGas is expanding its LGP portfolio in two ways. First, SCG would like to close a gap in the LGP area where SCE and SoCalGas overlap, by contracting with those SCE 2012 LGPs that do not include SoCalGas.

Second, SoCalGas intends to expand its LGP program offering by adding a “Virtual Center” Program that will provide additional “technical” resources not currently offered to existing LGPs.

This expansion will result in doubling the number of existing SoCalGas LGPs as well as the overall LGP budget. The SoCalGas 2010-2012 LGP total budget is \$5,494,004 million for the three year cycle. For 2013-2014, SoCalGas requested an additional \$2,787,899 million for the LGP expansion and \$644,867 for the “Virtual Center” Program for the two year cycle.

71. Describe how your application addresses the required disclosure on criteria for rejecting any LGPs proposed. Disclose any LGPs proposed by governmental entities or agencies that were not advanced in the applications for funding.

SCG response to Q71:

SoCalGas did not reject any proposed LGPs. All 2010-2012 LGPs met the identified success criteria, and SoCalGas did not have a solicitation for new proposals. Any revisions made to existing PIPs by Partners were accepted and filed in SoCalGas’ application. SoCalGas’ supporting testimony (Chapter 2, c, page 19) states that since SoCalGas did not reject any proposals, we will not be attaching PIPs for any rejected program (pursuant to OP 33).

72. What do you feel is the appropriate role of IOUs in the arena of Codes and Standards, particularly at the local level, and how would you characterize the effectiveness of such IOU efforts and expenditures to date?

SCG response to Q72:

It is clearly appropriate for IOUs to support both compliance improvement and reach codes at the local government level. The IOUs added compliance improvement and reach code subprograms to the 2010-2012 C&S program in response to strategic opportunities to strengthen building code and appliance standards advocacy efforts. These four subprograms are less effective when separated. For example, future reach codes based on 2013 building codes, that will inform 2016 state building codes, must incorporate information from recent CASE study efforts and planning for 2016 that includes codes and standards, incentive programs, and emerging technologies. Compliance improvement efforts must likewise be coordinated in each of these areas, since achieving state policy goals requires greater portfolio integration.

While training efforts through the LGP programs have shown to be effective, and such training is planned to continue, the IOU’s Codes and Standards (C&S) Program enhances this training by targeting those market actors in the compliance supply chain who have been identified as having the greatest impact on building energy code compliance. These market actors include: Energy

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Consultants, Plans Examiners, Building Inspectors and Contractors. C&S believes all of these market actors must receive consistent, repetitive messages and processes and tools that work together in order to affect behavior change. As a result of their experience and expertise, the IOUs are well positioned to maximize cost effectiveness and synergies by coordinating similar statewide activities, and by coordinating with other programs in the IOU portfolios. By coordinating the local efforts the State is able to cost-effectively leverage feedback from compliance improvement subprogram participants to help inform future advocacy efforts. Greater coordination within the statewide IOU portfolios will increase the likelihood of achieving state policy goals. The IOUs’ compliance improvement efforts help the State realize the full benefit of the C&S Program’s advocacy efforts and the feedback gained from compliance improvement subprogram participants help inform future advocacy efforts.

Emerging Technologies Program (ETP)

73. Explain how your utility has been or is planning to use existing research, including EM&V studies and the Commission Potential and Goals studies to help target potential technologies (OP 96).

SCG response to Q73:

The ET Program relies on an open and collaborative process with program managers from program areas, ETP, staff engineering, and market researchers to ensure that proper due diligence is done on new technologies under consideration for incentive programs. Existing research is and will be used in many ways; for example, EM&V studies that look at customer acceptance of emerging technologies will be used to develop conclusions about the rate of customer adoption of ETs. If customers are slow to adopt ETs, the ETP may conduct research into the underlying reasons as a way to determine whether modifications to the technology should be suggested to the manufacturer. The Potential and Goals Studies will be used during the scanning and selection process so that initial scanning for new technologies covers areas identified by the Commission. The Commission's Goals Studies will also help direct initial consideration of which ET candidates are selected while technology candidates are being assessed.

74. For the proposed Technology Resource Innovation Program (TRIP), provide:
- a. An outline of the tactics, including:
 - i. Description of the tactic
 - ii. Objectives of the tactic
 - iii. How the tactic will help meet the subprogram’s Technology Introduction Support objectives and how the tactic will help meet the ETP goals
 - b. A description of the solicitation process, including:
 - i. Plan to define the target audience
 - ii. Plan for reaching the target audience
 - iii. How the candidates will apply for the solicitations
 - iv. Outline the selection process, including screening process and criteria for selection
 - c. For winning programs, describe how they will be administered and ETP’s role in the program administration, if any
 - d. Explain how the savings produced by this tactic will be claimed (under ETP or another program)
 - e. Estimated budget set aside for winning programs and from which program
 - f. Will incentives be awarded? If yes:
 - i. Expected level of incentives for each successful program
 - ii. Criteria for awarding incentives
 - iii. Relationship between ETP-funded activities and third party program administration.

SCG response to Q74:

- a. An outline of the tactics, including:
 - i. The intent of the TRIP program is to find, fund, and field test new energy efficiency (EE) or IDSM (combined Energy Efficiency and Demand Response) emerging technologies and delivery approaches that are discovered through the marketplace and IOUs ’s Technology Resource Incubator Outreach (TRIO) activities.
 - ii. The TRIP program will support the introduction of new measures and/or program approaches while supporting EE programs in

achieving the CPUC's energy savings and demand reduction goals. The program aims to achieve greater market acceptance of new technologies through customer incentives, information/education, and technical assistance to help overcome market barriers.

- iii. The TRIP program will help meet ETP's goals by encouraging the introduction of new and emerging technologies through third party offerings. The tactic includes moving promising technologies from development stage quickly into the commercial marketplace.
- b. A description of the solicitation process, including:
 - i. The TRIP solicitation will seek proposals for the design and implementation of an innovative program. The targeted audience includes, but is not limited to, TRIO participants and other entities engaged by ETP. TRIO participants include entrepreneurs, third party vendors, investors, EE and DR technology companies, as well as universities. The goal is to leverage relationships through various ETP efforts to support a diverse and qualified set of bidders. The targeted audience also includes firms discovered through the marketplace and other IOU relationships.
 - ii. The targeted audience will be added to a bidders list and notified through email. The release of the TRIP RFP will be made public on the IOU statewide solicitation website called PEPMA (Proposal Evaluation and Proposal Management Application). The targeted audience will also extend to pre-registered bidders of the PEPMA website who will be notified of a new solicitation posted.
 - iii. The candidates (i.e., potential bidders) will register through the PEPMA website if they haven't done so previously. Registration includes answering a series of questions and gives the potential bidder a user-name and password to access the competitive solicitation online.
 - iv. The evaluation process consists of two parts, threshold and weighted. Part 1 (threshold) will first evaluate the responsiveness criteria on a pass/fail basis. Proposals will be deemed non-responsive (fail) if they neglect to include all information as called for in the request for proposal (RFP). The proposals that receive a passing score in Part 1 will be advanced to Part 2. Part 2 is scored according to the criteria and weights listed below:

Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas

- The technical documentation is reviewed by SCG to determine whether the information meets the RFP requirements. SCG may provide notice to the Bidder of any technical deficiencies to be resolved by the Bidder within a predetermined timeframe.

Proposals with technical deficiencies that are not resolved by the Bidder within the predetermined timeframe may be deemed technically non-responsive and will not be scored further.

- Each proposal is evaluated based on the information outlined in the **Error! Reference source not found.** table below.
- All proposals are then ranked according to their overall score.

1. Approach to the Work— 35%
In judging the Approach to Work of the Bidder, SCG will evaluate, at a minimum, the following criteria: <ul style="list-style-type: none">• The individual components of the Program design (e.g., staffing plan, marketing plan effectiveness, work plan, and timeline, etc.) and how the components contribute towards the potential success of the implementation of the Program;• The Bidder’s overall understanding of what is required to accomplish the Program’s deliverables and goals;• The Bidder’s strategies to overcome market barriers and customer hurdles to installing Measures; and• The Program design incorporates one or more of the <u>five (5) Innovation categories</u> of the RFP and incorporates best practices.
2. Program Cost Effectiveness – 30%
In judging the Program’s cost effectiveness, SCG will evaluate the first-year costs versus first-year energy savings, levelized cost, TRC, and PAC.
3. Skill and Experience – 25%

In judging the skill and experience of the Bidder, SCG will evaluate, at a minimum, the following:

- That the Bidder has successfully (based on goals and budgets versus actual results) implemented a Program with similar breadth and scope (same end-uses and technical skill set);
- The degree to which the Program concept and implementation have been successful in the past;
- The team's overall relevant experience; and
- The team has identified and presented the required licenses, insurance, and financial information required to complete the Work.

4 Supplier Responsibility—10%

SCG requires, upon SCG's request, bidders to provide documentation of their policies, programs, and performance reports that support supplier responsibility, including:

- Safety policy and management program
- Injury and Illness Prevention Plan
- Environmental policy and management program
- Ethics and Compliance or Code of Conduct policy statement

- c. The awarded TRIP Programs will be administered by the utility's EE program management staff that oversees the implementation of third party programs. TRIP Programs will follow standard Third Party Program Policies and Procedures manual given to all third party implementers.
- d. The funds supporting the technology assessment in TRIP solicitation program will come from EE customer program. Therefore, the savings will be claimed

by EE customer program under specific program as will be agreed at the project planning level.

- e. SCG has not finalized the planning and budget for TRIP with EE program manager. However, an initial \$200,000 has been set aside for activity related to TRIP solicitations.
- f. Will incentives be awarded? If yes:
 - i. SCG proposes to pay incentives directly to the customer. The determination of customer incentives levels will vary depending on the technology. Typically, the customer incentives will be consistent with like measures offered through the statewide programs. SCG will also consider the cost effectiveness of the measure and the overall program in determining a customer incentive level.
 - ii. See response shown above. Final customer incentives are paid after the measure is installed.
 - iii. The TRIP program focuses on market introduction of new and emerging technologies as part of the statewide ETP activities. The administration of TRIP-third party programs will be managed by SCG program staffs that are most familiar with managing third party program implementers. The proposed budget for the TRIP activities is contained within the ETP.

75. Provide an explanation for how the programmatic initiatives will be used to:

- a. Advance building integrated design for Zero Net Energy goals
- b. Achieve reduction in plug loads (OP 103).

SCG response to Q75:

In the current 2010-12 cycle, the ET program engaged in various whole-building efforts that demonstrated how integrated building design is conducted. These efforts included collaborating with internal and external groups. In the 2013-2014 application, ET will continue to develop whole-building efforts that support deep energy reduction goals as describe in the Zero Net Energy Big Bold Goals. Central to whole-building efforts is the need to address all cost-effective measures including plug-loads, behavior, energy/load management strategies, HVAC, etc.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Specific to plug-loads SCG will work collaboratively with electricity utilities on demonstrating plug loads technologies that in connection with Zero energy goal.

76. Provide the budget and scope of work for the residential and commercial roadmaps (OP 104 and p. 272).

SCG response to Q76:

The scope of work for the residential and commercial roadmaps has not yet been developed, but will likely include research and alignment with applicable past efforts, such as market research and saturation studies. Similarly, there will be close coordination with all relevant current and planned efforts, internal or external to IOUs efforts (e.g., the 2013-2014 market assessments that will be planned through the joint ED/IOU EM&V group). The statewide ET Program expects that the development of roadmaps will require close coordination with other similar planned or ongoing efforts that EE programs, regional players, and/or stakeholders are involved in. ETP envisions the following timeline for the development of the budget and scope:

- 1) Develop general scope and solicit bids - Q1 2013
- 2) Review bids and award - Q2 2013
- 3) Roadmap activities - Q2 to Q3 2013
- 4) Complete work by Q4 2013

A final budget will be determined in conjunction with finalizing the scope of work. The SW ETP estimates these efforts could be in the range of \$100,000 to \$1 million. SoCalGas will be coordinating with other IOUs in a statewide effort to determine the appropriate amount contribution.

Workforce, Education, and Training (WE&T)

77. Regardless of whether Market Transformation Indicators (MTIs) were identified in the staff guidance on 2013-2014 MTIs, provide a list of MTIs the IOUs believe are pertinent to portfolio-wide WE&T efforts.

SCG response to Q77:

The Guidance Decision (D.) 12-05-015 directed the utilities to include Market Transformation Indicators (MTIs) in the PIPs of programs identified as "market transformation-oriented" programs (p.358). As WE&T was not identified as a market transformation-oriented program, the IOUs did not propose new MTIs in the 2013-2014 WE&T PIP. The IOUs do not have new MTIs for WE&T to introduce at this time. Please note the market transformation experts from the MTI workshop unanimously agreed that the creation of new market indicators should be one of the last steps in a market transformation program planning methodology, as summarized on p.3 of DRA's Comments on the November 7, 2011 Market Transformation Indicator Workshops (filed 11/21/2011):

B. The indicators contained in the ED MTI Spreadsheet should not be finalized outside the sequenced 13-step market transformation program planning methodology.

The determination of market transformation indicators cannot be divorced from the sequenced 13-step market transformation program planning methodology. This is because the indicators should measure progress toward the objectives of a specific market transformation program and the desired "difference" the program logic model is designed to effect. The determination of market transformation indicators, which is the 10th step of the sequenced 13-step methodology, should follow and not precede the other steps in the market transformation program planning methodology. How can the appropriate market transformation indicators be determined if one has not yet precisely defined the market, the leverage points, the barriers, the intervention, the desired "difference" from a baseline, and the data set and data collection strategy? Failure to define the market, the leverage points and the other building blocks for a successful market transformation strategy before determining market transformation indicators is akin to putting the cart before the horse.

Such an out-of-sequence approach will likely result in measuring the wrong things, with the result that these incorrect metrics will improperly influence how a program will be planned, designed, executed, evaluated, and adjusted. This will make it difficult to recognize unwanted results at the earliest possible stage of program implementation, when it is less expensive to adjust the program to improve outcomes. The result will be less useful and less actionable market

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

transformation and progress indicators, inaccurate or misleading evaluation outcomes, delays in transforming markets, and imprudent investment of ratepayer capital. Therefore, DRA recommends development of MTIs as part of the programs proposed for the bridge years and beyond.

The IOUs propose to work with Energy Division to consider appropriate MTIs for WE&T through the MTI Project Coordination Group authorized in the Guidance Decision.

78. The IOUs appear to identify the HVAC sector strategy as the only “pilot” effort they will seek to pursue in 2013 – 2014. Describe any other sector strategy efforts that have been initiated or are planned to be initiated in 2013 – 2014. If none, why?

SCG response to Q78:

The IOUs understand and embrace the need to integrate the sector strategy approach as a critical component to their diverse portfolio of education and training efforts. In 2012, the IOUs have embarked upon the creation of a commercial HVAC sector strategy focused on quality maintenance. Sector strategy efforts that the IOUs have started in 2012 and will continue into 2013-2014 include:

- Energy Education Sector Strategy efforts will increase student engagement in energy-related coursework and programs, positioning them for successful careers and a life-long appreciation of energy conservation and efficiency. The IOUs will work to facilitate the linking and leveraging of stakeholders, resources and existing programs to increase our overall ability to cultivate the next generation of energy workers. Approximate timeline provided below.

The timelines below reflect approximate deliverables/action items that are subject to change.

Energy Education Sector Strategy (Statewide)	
Q3 & Q4	• Assemble core IOU teams and identify main points of contact

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

2012	<ul style="list-style-type: none"> • Identify initial partners and assemble core team • Engage in initial collaboration and identification of needs with education sector regarding infusion of EE fundamentals and Green Careers awareness and exploration • Research relevant activities for the sector strategy • Finalize team and determine meeting cadence • Form Steering Committee and Advisory Committees, as needed • Clarify and finalize market driver to which sector strategy is responding • Determine scope, specific objectives, metrics of success, 2013 timeline
Q1 & Q2 2013	<ul style="list-style-type: none"> • Finalize project plans and develop partnership implementation, including establishing respective roles and contributions • Begin project plan execution • Determine success metrics • Re-assess stakeholders and modify Committee(s), as needed
Q3 & Q4 2013	<ul style="list-style-type: none"> • Continue project plan execution • Assess initial progress made via success metrics developed • Expand project plan and develop agreements for partnership implementation • Develop specific timeline and budget for 2014
Q1 & Q2 2014	<ul style="list-style-type: none"> • Continue project plan execution • Begin to identify any lessons learned from 2012-13 activities
Q3 & Q4 2014	<ul style="list-style-type: none"> • Complete project plan execution • Quantify and formalize lessons learned from 2012-14 activities

Other efforts prioritized among the WE&T program, in consideration to the long-term strategic plan and IOU energy efficiency goals, include collaboration on workforce needs to expedite adoption of emerging technologies once approved for market rollout, coordination with the Energy Savings Assistance Program (ESAP), training that reinforces code and installation standards compliance, as well as integration of continuous energy improvement curriculum.

The following sector strategy initiatives are being initiated in 2012.

- HVAC Non-Residential with a focus on quality maintenance (later to include quality installation) to ensure proper methods and procedures for new and existing HVAC system performance to optimize comfort and minimize energy use.
- Integrated Demand Side Management Energy Professional/Program Manager sector strategy focuses on the management and implementation

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

of California's energy efficiency, demand response, and distributed generation programs.

- Architectural Design Professional to improve the collaborative design and retrofit efforts of new and existing buildings toward meeting California's goal of zero net energy by 2020 for residential and 2030 for commercial buildings.
- Solar and Renewables Professional to develop and enhance the workforce necessary to sustain a rapidly-growing renewables industry, integrate renewables with energy efficiency and demand response, while meeting the state's RPS goal (33% by 2020) and GHG emissions goals.
- Residential Weatherization Sector: Entry level weatherization workers, including those from disadvantaged communities and programs supporting them (see additional strategies for minority, low-income, and disadvantaged workers in the answer to Q 81), will be supported in concert with the Low Income Energy Efficiency program. Additional residential support for Whole House Upgrade programs will focus on peripheral industries, including realtors, appraisers and construction trade contractors who could help with the expansion and promotion of the program from a collaborative education and training effort.

The Residential Weatherization Sector Strategy can be used to fulfill ESAP requirements from the Decision, such as:

- Assessing the education and training needs, if any, of the existing ESA Program workforce in yielding effective and quality program outcomes;
- Providing the support and framework for the necessary training and education for the existing ESA Program workforce to yield effective and quality program outcomes, including providing the workforce with the necessary lead safety and other similar safety training;
- Determining what ESA Program workforce needs will be for the remaining three cycles, until 2020;

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- Anticipating and planning for in the workforce needs to support the ESA Program in the remaining three cycles, until 2020;
- Exploring ways to leverage (with green jobs programs, community-based and nonprofit organizations, educational institutions, the business community, and labor organizations, etc.) wherever possible and incorporate teaching minority, local, low income, disabled, displaced, and other disadvantaged communities the skills needed to meet the ESA Program needs, where feasible;
- Considering possible pilot programs (as recommended in the Needs Assessment) to test new quality standards for ESA Program weatherization projects accompanied by necessary training, increased pay for performance for contractors, and links to job placement for completing the training then initiate the evaluation below; and
- Participating and maintaining alignment to the extent possible with the IOUs’ statewide WE&T efforts.

79. Why is the Green Pathways program transitioning into a local program offered only in PG&E’s territory for 2013 – 2014? Explain the rationale for the other IOUs not pursuing this program.

SCG response to Q79:

The Green Pathways program established proof of concept in the 2010-2012 pilot phase. In 2013-2014, Green Pathways will scale up in PG&E’s territory. An important goal for 2013 is to identify the tools and strategies that support cost-effective scale in order to expand beyond PG&E’s territory.

Green Pathways provides not only the envisioned online community, but also an online course with more than 15 sessions that provides information about the importance of and the need for green work. In addition, the program develops students’ ability to productively interact with adults and peers in the envisioned online community on green issues, a requisite skill in which we found students to be very deficient. Scaling the course in combination with the online

community is more complex than scaling just the initially envisioned Green Pathway online community.

PG&E originated this pilot for its specific regional needs to target grades 9-12 and does not yet know how it would expand into other IOU service areas in a sustainable and cost effective manner. SoCalGas will continue with its implementation efforts within the constructs of the statewide WE&T Connections subprogram to build and improve pathway linkages between education institutions, technical training entities and employers.

IOUs presently serve grades 9 - 12 through the following programs:

- SCE: Green Schools (K - 12 grade) - educates students about energy and its link to the environment, promotes energy-conserving habits and encourages a green career path.
- SCE, SDG&E, SoCalGas: PEAK (3 - 12 grade) – a comprehensive standards-based educational program designed to empower students with the knowledge to manage energy use in their homes, schools and communities.

80. What are the lessons learned resulting from the existing WE&T process evaluation? Provide a table or attachment listing the findings, lessons learned, and recommendations resulting from this evaluation. Include in the table a column indicating how the IOUs will address these recommendations.

SCG response to Q80:

The recommendations listed in these tables below were presented by Opinion Dynamics to the statewide WE&T team and Energy Division staff earlier this year. They may not be comprehensive and are subject to change since the process evaluation is still under development and has not yet been published.

Centergies Findings, Lessons Learned, Recommendations	IOU Response
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**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

CenterGas Findings, Lessons Learned, Recommendations	IOU Response
<p>1) Consider other approaches to information dissemination</p> <ul style="list-style-type: none"> • The Internet can be a highly effective means of “sharing knowledge” (webinars, podcasts, expert videos, web-based self-study, live webcast, on-demand web courses) 	<p>During 2013-2014, the IOUs plan to assess new knowledge sharing opportunities. In particular, web-based approaches as described in the process evaluation will be considered. The IOUs will begin developing materials to implement these approaches once cost and efficacy of delivery methods have been determined. IOUs have already embarked upon on-demand classes. Other opportunities include energy fundamentals classes for on-demand. Such fundamentals courses will be cross-cutting across various sectors and can be shared across IOUs.</p>
<p>2) Consider developing a few well-targeted and effective courses. Consider other program’s offerings; identify major gaps in serving key sectors then develop training to meet the most pressing gaps</p> <ul style="list-style-type: none"> • Build from performance objectives based on roles and responsibilities • Emphasize “hands-on” practice of skills and application of knowledge • Include ample examples based on “real world” scenarios • Provide job aids to support performance after class 	<p>As part of the emphasis on sector strategies during 2013-14, the IOUs plan to target training gaps in key sectors. While the sector strategies are still under development, they will support key training certifications and guide the IOUs in achieving greater success in their programs to target wider audiences for key sectors. The IOUs plan to focus these courses on practical skills and scenarios relevant to the sector and provide reference materials and job aids to encourage knowledge gained to be implemented in the field. The IOUs will increase their use of adult learning principles to effect active learning and knowledge retention in these areas. IOUs will review student evaluations for courses where there were significant changes to the course delivery method to assess student feedback on the changes to the courses.</p>
<p>3) Use more flexible delivery options for information dissemination:</p> <ul style="list-style-type: none"> • Night/weekend classes 	<p>Select courses are offered evenings and weekends. The IOUs will explore participant interest in more flexible course schedules.</p>
<p>4) Make course information easily transferable to others to extend reach.</p> <ul style="list-style-type: none"> • Materials available online/electronically (e.g., PowerPoint files) • More handouts - step-by-step guides, booklets, brochures • More visual materials (i.e. photos, diagrams) • Additional 	<p>The IOUs provide reference materials and/or modified course materials and/or refer people to existing course materials that course participants can distribute among colleagues. Emphasis will be placed on materials that are easily accessible and provide clear visual representations, step-by-step guides and “how-to’s” for application in the participants’ workplaces after course completion. When possible, course materials will be made available to participants online or sent</p>

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Centergies Findings, Lessons Learned, Recommendations	IOU Response
<p>references/links/resources to supplement coursework</p> <ul style="list-style-type: none"> • Online guide 	<p>electronically. Some materials employed by the IOUs may be copyrighted, so IOUs will need to ensure that copyright laws are adhered to prior to facilitating distribution of any materials.</p>
<p>5) The following Sectors need more IDSM training; increasing IDSM content will help meet the need:</p> <ul style="list-style-type: none"> • HVAC • Lighting/Daylighting (especially demand response) • Architects/Engineers/Design • Building Management and Maintenance (some offerings currently available, very important topic for this sector) 	<p>The IOUs have an agreed-upon definition of IDSM and will expand the number of IDSM courses as appropriate. The IOUs plan to expand their existing IDSM course content with a particular focus on the areas identified in the process evaluation. Where appropriate, these courses will include content on EE, DR, DG and buildings as systems.</p>
<p>6) Learning objectives need to be written from the perspective of what the student will get out of the class, as opposed to what the instructor’s objective is to do in the class.</p>	<p>The IOUs will focus course learning objectives on the perspective of the student such that the learning objectives have clear goals for what the student will learn/do in the class and, as appropriate, do or be able to with the material after the class.</p>
<p>7) Food Service-specific findings: Likely levers for increasing positive action after class include:</p> <ul style="list-style-type: none"> • Focus courses around a few key “do” objectives • Provide guidelines and job aids to assist in assessing options and taking appropriate action • Include in-class activities based on “mini-scenarios” in which participants choose an appropriate plan of action 	<p>Participants responded very favorably to the food service component of the IOU offerings. However, the IOUs plan to implement several key recommendations from the process evaluation. These include structuring course content and materials around specific actionable objectives, expanding reference materials and job aids to help food service personnel assess options and make decisions with regard to food service technologies, and providing practical examples and applications in food service courses.</p>

Evaluation Item	IOU Response
<p>Energenius (PG&E only): 1) Consider online training/pre-recorded videos where teachers can learn from a trainer and watch teachers</p>	<p>During 2012-2013 school year, the Energenius Survey will include a question determining the extent to which teachers would attend a training</p>

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Evaluation Item	IOU Response
teaching some of the more challenging lessons.	<p>session and/or watch a training video on specific lessons within a Energenius Program.</p> <p>The Energenius program team plans to evaluate the amount of interest in such training materials against the cost of production and distribution.</p> <p>All Energenius Teacher Guides will now include on the inside front cover and inside back cover a prominent call out box suggesting that if the teacher has any questions about the lessons/activities to contact the PG&E Program Manager (with an email address). The PG&E Program Manager will keep a log of all such calls.</p> <p>This information will also be helpful in determining the need for additional contact/training of the teachers.</p>
Energenius (PG&E only): 2) Consider adding online student activities to the curriculum.	<p>During 2012-13 school year, the Energenius program team plans to conduct research to identify existing online student activities (non-commercial) that support learning about energy efficiency and other content/concepts specified in the Strategic Plan and Needs Assessment.</p> <p>Online student activities will be incorporated in the lessons and/or the appendices of the various Teacher Guides (excluding the preschool and Kindergarten level programs).</p>
Energenius (PG&E only): 3) Consider incorporating lesson around KW reductions and demand response into the curriculum where appropriate.	<p>New Energenius programs under development have KW reductions and demand response incorporated into the curriculum as age appropriate.</p>
PEAK Program (PG&E only): 1) Consider a requirement that fifty percent of the schools participating in PEAK annually be new recruits to the program.	<p>The Connections program team plans to discuss this recommendation with the PEAK program implementer as part of the contract negotiations.</p>
PEAK Program (all IOUs): 2) Consider developing online training or pre-recorded videos where teachers can learn from a trainer and watch teachers teaching some of the more	<p>This recommendation has already been implemented.</p>

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Evaluation Item	IOU Response
challenging lessons. This has already been completed.	
PEAK Program (all IOUs): 3) During the teacher training session consider increasing the time spent on hands-on training and covering unit materials. Will be discussed during the contract negotiations.	The IOU WE&T Connections program teams plan to discuss this recommendation with the PEAK program implementer as part of the contract negotiations.
Green Pathway Program (PG&E only): 1) The ODC evaluation was very favorable of the concept and design. It found that this on-line program has the potential to start to expose students to career options and connect them with resources to help them. It is in alignment with the expectations of the Strategic Plan and the Needs Assessment and is unique in both its delivery and the only one of its kind (in terms of alignment with the objectives) for targeted high schools.	The Green Pathway program is still under development and pilot will be completed at the end of 2012. As described in the 2013-2014 Program Implementation Plan, PG&E plans to offer Green Pathway as part of their Connections portfolio of programs.
LivingWise (SCE only): 1) LivingWise is currently targeted at 6 th grade classrooms. Consider expanding the reach of LivingWise by expanding the curriculum to other grade levels.	The topics in the current curriculum align better with 6th grade than other grades. However, the SCE Connections program team plans to discuss the possibility of expanding this program to other grades with the program implementer, giving consideration to teacher interest and resources available.
LivingWise (SCE only): 2) Consider fine-tuning lesson plans and program objectives to better meet teacher objectives and needs. Guidance for some classroom activities is vague or incomplete.	The LivingWise program implementer is continually improving the program. They recently conducted a focus group among teachers to get more feedback from teachers/users to improve the program these regards.
LivingWise (SCE only): 3) LivingWise is generally conducted via a “passive learning” design. Consider restructuring the curriculum and teaching modalities to encourage an active learning environment.	The LivingWise program implementer is currently redesigning the program to be more interactive and to engage more critical thinking in students.
Green Schools (SCE only): 1) Consider revising program content and training materials. The curriculum seems to be poorly aligned with	The SCE Connections program team will discuss this recommendation with the program implementer and encourage them to consider engaging with a consultant group specializing in

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Evaluation Item	IOU Response
California Content Standards, teacher training effectiveness scores and overall program satisfaction were quite low, and student learning materials are not always age appropriate.	education and curriculum. In addition, the program team will encourage the implementer to conduct focus groups to identify specific opportunities for program improvement.
Green Schools (SCE only): 2) Consider adding program content on demand response.	The SCE Connections program team plans to arrange for greater collaboration with the SCE demand response (DR) group to help ensure that DR and IDSM are imbedded in the Green Schools program.
Green Schools (SCE only): 3) The program focuses on energy savings at schools at the expense of educating students. Consider leveraging other materials such as Energenius to encourage more classroom education.	The SCE Connections program team plans to work with program implementer to modify the program structure so that the focus is: <ol style="list-style-type: none"> 1. Energy Education 2. Achieving energy savings at schools/homes 3. Focusing on “Green Workforce”
Green Campus (all IOUs): 1) Green Campus has a goal for interns to engage 1,000 students per semester/quarter through outreach and educational activities. Consider restructuring this goal, as it is more challenging for small schools and those on the quarter system to meet this goal than for large schools and those on semester terms.	The IOU WE&T Connections program team will suggest to the Green Campus program implementer that the outreach goal be adjusted based on student population and quarter verses semester.
Green Campus (all IOUs): 2) Consider new options for those campuses that have already implemented many demand side management and sustainable measures. Some campuses are so green that interns are limited in the energy saving potential they can achieve.	The IOU WE&T Connections program team will suggest to the Green Campus program implementer that the program move to new campuses and set up sustainability plans for those campuses that have participated the longest or have limited energy saving potential.
Green Campus (all IOUs): 3) The strength of the relationship with campus facility departments varies by school, and weak department support limits energy saving potential.	The IOU WE&T Connections program team plans to work with the Green Campus program implementer to identify how the IOUs can support the Green Campus interns on campuses where the support is weak.
Green Campus (all IOUs): 4) Consider ways to make the program more challenging for interns that participate over several years.	The IOU WE&T Connections program team will suggest to the Green Campus program implementer that they come up with several options for veteran Green Campus participants.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Evaluation Item	IOU Response
	For example, they may wish to develop a two to three year developmental plan for the interns that gives them additional training as they become more senior, or they may wish to facilitate opportunities for interns to provide mentoring support to local high school students and or Green Pathway program.

81. What strategies are the IOUs pursuing to ensure not only training for minority, low-income, and disadvantaged workers, but also employment opportunities after training is complete?

SCG response to Q81:

For the Energy Savings Assistance program, as directed in D.12-08-044, SoCalGas will begin tracking (1) contractor and subcontractor contract terms (competitive bid, direct award, etc.); (2) contractor and subcontractor compensation schemes (hourly, piecemeal, salaried, etc.); (3) number of inspection failures and the types of failures (including the number of enrolled customers later deemed ineligible, number of incorrectly assessed households and instances of measure installation inspection failures); (4) level and type of IOU training (including lead safety training) and screening (including background check) these specific contractors have completed; (5) customer feedback for these contractors, positive and negative; (6) demographic data of the current ESA workforce, including minority, local, low income, disabled, displaced, and other disadvantaged communities; and (7) the IOU’s assessment of any other needs of the existing workforce to meet the current and future ESA Program demands. In February 2013, SoCalGas will submit a report with preliminary findings and a summary of WE&T data collected in the seven WE&T areas for program year 2012 to begin assessing its WE&T needs, if any, of the existing ESA Program workforce in yielding effective and quality program outcomes. This report will be evaluated by the CPUC’s Energy Division and the WE&T Working Group established by D.12-08-044.

Developing partnerships with community-based organizations and community colleges that target minorities, low-income, and disadvantaged workers have been a priority.

Partners provide the necessary skills-based training which articulates to the IOU portion of the training. This often reduces training costs, a benefit highly valued by participating employers covering training costs.

While the training centers are not "job-connection hubs," nor "career centers", partnerships with trade organizations such as the Institute of Heating and Air Conditioning Industries (IHACI), Building Operator Certification (BOC), and Sheet Metal and Conditioning Contractors' National Association (SMACNA) help supplement their pre-apprenticeship training efforts with the sector specific cutting edge technologies offered by the IOUs.

The IOUs will continue to seek out and pursue additional arrangements with industry partners that can further assist in connecting trained workers with employers.

82. What requirements do the IOUs currently have, related to their programs that support health and safety training requirements (p. 281)? Provide a specific list of the health and safety requirements currently included in certification or other IOU program requirements.

SCG response to Q82:

The IOUs expect contractors to work safely with any hazards presented during the course of providing services for their respective programs. IOUs require all personnel in the ESA Program to work safely with asbestos and lead when their presence is suspected. These standards are a regular component of all ESA training. Contractors are required to follow all federal, state, and local requirements. If training is required for other health and safety issues, not specifically related to lead and asbestos, contractors must provide that training to their employees. In addition to requirements associated with lead and asbestos, and Environmental Protection Agency (EPA) Lead Renovation, Repair and Painting (RRP) rule, the Weatherization Installation Standards (WIS) manual also references health and safety requirements stemming from OSHA regulations

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

which are meant to protect the employee when working with lead (Title 8 Section 15321.1 and Title 17 Section 3600 et . seq.). In addition, all workers are trained to recognize the possibility of Asbestos and instructed not to disturb the material if suspected. The ESA Program and training does not include Asbestos or Lead certification, however all participating contractors are required to be Renovation, Repair, and Painting (RRP, an EPA certification) certified. There is no requirement for contractors to be Asbestos certified if not involved in remediation; the same also applies to Lead with the exception of RRP. Also, all employees of ESA participating contractors, working with gas appliances are offered NGAT training.

Augmented BPI training provides the following protocols:

- Measuring for Spillage and Calling for a GSR if protocol requires.
- Testing for Spillage and CO under Worst Case Depressurization.
- Combustion Appliance Inspections, Soldered or pre-1973 Gas Flex Connectors – Replace.
- Combustion Appliance Testing – Ambient CO, Worst Case Depressurization, CO Testing, Spillage, Draft.
- Blower Door Testing (EUC Only).
- ASHRAE 62.89 Ventilation Testing (BAS).
- ASHRAE 62.2 - 2010 Ventilation Testing (CEC).
- Combustion Testing Action Levels.
- Wear Protective Clothing and Personal Protection Equipment.
- Use Tools Properly and Safely.
- Keep Material Safety Data Sheets (MSDS) on site.
- Follow EPA guidelines for hazardous materials.
- With Asbestos present, no Blower Door Testing, No Duct testing.
- With Mold present, no Blower Door Testing.
- Lead Based Paint, follow EPA’s 2008 Lead-based Paint Renovation, Repair and Painting Program Rules, Requires Certification.
- Combustion Ventilation Air evaluations and corrections.
- Duct Leakage Calculations EUC Program Installation Standards, Air Sealing, Quality Insulation Installation, HVAC Equipment Standards.
- Lighting Standards.
- Water Heater Standards.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

- CO Monitors Action Guidelines for CVA, CO, Gas Leaks Hardware issues for venting and heat exchangers.
- Failure limits for gas dryers, Gas Cook Tops, Gas Ovens/Broilers, Gas Log Fireplaces.
- Combustion Appliance Zone Testing.

Cost-Effectiveness

83. Clarify whether the Emerging Technology Program (ETP) costs were included or excluded from portfolio-level cost-effectiveness calculations (see D.09-09-047, pp. 68-69). Provide a table showing the overall portfolio PAC and TRC values with and without ETP program costs.

SCG response to Q83:

Emerging Technology Program (ETP) costs were included in the portfolio-level cost-effectiveness calculations. Portfolio level TRC and PAC values with and without inclusion of ETP costs are shown below.

	SCG Portfolio w/ ETP (filed)	SCG Portfolio w/o ETP
TRC Net Benefits	\$57,627,794	\$60,144,521
TRC B/C Ratio	1.23	1.24
PAC Net Benefits	\$137,193,744	\$139,710,471
PAC B/C Ratio	1.80	1.83

A.3. Specific Questions for SoCalGas

Residential Programs

1. Provide proposed Plug Load and Appliances program incentive levels.

SCG response to Q1:

Please see the Attachment file “ACR Scoping Memo Data Request Q D1, Attachment A.xlsx.” to this data request for the PLA program incentive levels. To be able to access a live version of the document, SoCalGas has posted the live document on its external website at:

<http://www.socalgas.com/regulatory/A1207003.shtml>.

2. For the Whole House Upgrade Program, include and separate the budget projections and savings estimates for the Advanced and Basic path components of the single-family and multi-family programs.

SCG response to Q2:

	Admin.	Marketing & Outreach	Direct Imp. (Customer Services)	Direct Imp. (Incentives & Rebates)	Total 2013-14 Budget	2013-14 Therm Savings
WHUP - SFam Adv.	\$225,689	\$401,216	\$1,591,667	\$1,129,918	\$3,348,490	204,119
WHUP - Sfam Basic	\$225,689	\$401,216	\$1,591,667	\$1,129,918	\$3,348,490	204,119
WHUP - MultiFamily	\$134,800	\$239,640	\$950,678	\$674,882	\$2,000,000	232,050
MIDI	\$134,800	\$239,640	\$950,678	\$674,882	\$2,000,000	44,000
Total	\$720,979	\$1,281,711	\$5,084,689	\$3,609,600	\$10,696,979	684,288

Emerging Technologies Program

3. Provide a proposed list of Program Performance Metrics for the 2013-2014 cycle, in accordance with Resolution E-4385.

SCG response to Q3:

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

The information below has been established and record in the 2013-2014 PIPs under section 5 “Program Goals, Objectives, Action Strategies & Performance Metrics.”

2013-2014 Subprogram	Objective	Cycle Numeric Goal
Sub-program #1 Technology Development Support Subprogram	Screen, select, and implement targeted technology development support projects to benefit EE measure development.	2
	Conduct technology developer outreach through workshops	2
Sub-program #2 Technology Assessments Subprogram	Assess EE measures, including integrated demand-side management (IDSM) measures	10
	Transfer measures from the ETP into the EE programs, with the goal of producing energy savings and/or demand reduction.	4
Sub-program #3 Technology Introduction Support Subprogram	Conduct technology introduction activities	2
	Conduct Technology Resource Innovation Program (TRIP) Solicitations	1

Cost-effectiveness Showings, E3 Calculators, and Workpapers

4. Provide DEER Run IDs and workpaper links in the E3 Calculator spreadsheets for both the “compliant” and “alternate” scenarios.

SCG response to Q4:

Please see response to SoCalGas data request send by the Energy Division, number EEGA 2151, Question 1. SoCalGas provided the Energy Division with E3 Calculators that include the DEER Run IDs and workpapers links associated with the response to question 1, and for the “alternate” scenario in response to EEGA 2151, Question 2.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

5. The E3 Calculators submitted are not clearly identified as either the “alternate” or “compliant” scenarios for cost-effectiveness purposes. Provide clear identification of the appropriate scenario in each E3 Calculator.

SCG response to Q5:

Please see response to SoCalGas data request send by the Energy Division, number EEGA 2151, Question 2. SoCalGas provided the Energy Division with clearly titled E3 calculators associated with the “alternate” scenario in connection with that response.

6. Provide a response to all requests in the Commission Staff data request of August 17, 2012 posted at this site:
<ftp://deeresources.com/pub/E3CostEffectivenessCalculators/2013-14ApplicationDR/>. The site contains both a Word document, and an associated Excel file referenced by the Word document, for each utility. Updated files in response to the data request should be made available to all interested parties.

SCG response to Q6:

This response will be provided by SoCalGas in the specific manner requested by the September 7 due date as specified in Energy Division data request EEGA-2261.

In connection with the program budget and savings for its E3 calculators, SoCalGas identified a discrepancy in Chapter 4, Tables 9-A and 9-C of its Testimony filed on July 2, 2012 (see pp. 108 – 110). After evaluation SoCalGas determined that while the individual program budget amounts were correct in the tables, the sub-total budgets shown for the Agricultural and Codes & Standards programs were incorrect. This also caused the program totals (with and without EM&V) on Table 9-C to be incorrect. SoCalGas notes this table was only for summary purposes and the incorrect totals were not employed for other purposes.

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

SoCalGas thus submits corrected tables 9-A, 9-B, and 9-C as part of the response to this data request, and explains in detail the corrected figures below:

Table 9-A

Total Agricultural filed testimony budget value (incorrect): \$5,176,620

Total Agricultural data request response budget value (correct): \$5,254,633

Total Codes & Standards filed testimony budget value (incorrect): \$1,504,576

Total Codes & Standards data request response budget value (correct):

\$1,674,228

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Table 9-A (Corrected)

Program	Sector/Category	2013-14 Budget*	2013-14 Gross Therm Savings
SW-AG-Calculated Incentives	Agricultural	4,045,232	1,496,799
SW-AG-CEI	Agricultural	64,221	
SW-AG-Deemed Incentives	Agricultural	1,067,167	487,026
SW-AG-Energy Advisor	Agricultural	78,013	
Total Agricultural		5,254,633	1,983,825
SW C&S-Appliance Standards Advocacy	Codes & Standards	332,773	
SW C&S-Building Codes & Compliance Advoc	Codes & Standards	417,252	5,395,135
SW C&S-Compliance Enhancement	Codes & Standards	499,128	
SW C&S-Planning Coordination	Codes & Standards	255,423	
SW C&S-Reach Codes	Codes & Standards	169,652	
Total Codes & Standards		1,674,228	5,395,135
3P-CA Sustainability Alliance	Commercial	1,600,000	
3P-CA Sustainability Alliance (Utility)	Commercial	60,902	
3P-Energy Challenger	Commercial	68,500	
3P-Energy Challenger (Utility)	Commercial	17,645	
3P-On Demand Efficiency	Commercial	4,600,000	1,129,204
3P-On Demand Efficiency (Utility)	Residential	101,187	
3P-PREPS	Commercial	1,200,001	600,000
3P-PREPS (Utility)	Commercial	63,702	
3P-SaveGas	Commercial	980,001	515,255
3P-SaveGas (Utility)	Commercial	50,665	
SW-COM-Calculated Incentives	Commercial	9,239,848	5,844,240
SW-COM-CEI	Commercial	399,999	
SW-COM-Deemed Incentives	Commercial	6,964,101	1,822,777
SW-COM-Energy Advisor	Commercial	1,016,008	
SW-COM-NonRes HVAC	Commercial	655,965	
SW-FIN-New Financing Offerings	Commercial	10,467,622	
SW-FIN-On-Bill Financing	Commercial	1,727,378	750,001
Total Commercial		39,213,524	10,661,477

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Table 9-B (Corrected)

Program	Sector/Category	2013-14 Budget	2013-14 Gross Therm Savings
3P-New Programs	Cross-Cutting	8,172,325	
CRM	Cross-Cutting	1,497,811	
Total Cross Cutting		9,670,136	
SW-IDSM-IDSM	DSM Coordination & Integration	650,000	
Total DSM Coordination & Integration		650,000	
3P-PoF	Emerging Technologies	2,256,218	
3P-PoF (Utility)	Emerging Technologies	58,357	
SW-ET-Technology Assessment Support	Emerging Technologies	1,006,034	
SW-ET-Technology Development Support	Emerging Technologies	125,757	
SW-ET-Technology Introduction Support	Emerging Technologies	1,384,936	
Total Emerging Technologies		4,831,302	
3P-Small Industrial Facility Upgrades	Industrial	1,428,000	678,762
3P-Small Industrial Facility Upgrades (Utility)	Industrial	44,047	
SW-IND-Calculated Incentives	Industrial	27,658,191	21,902,488
SW-IND-CEI	Industrial	645,999	
SW-IND-Deemed Incentives	Industrial	2,083,532	2,947,836
SW-IND-Energy Advisor	Industrial	1,216,007	
Total Industrial		33,075,776	25,529,086
LGP-Community Energy Partnership	Local Government Partnership	252,647	
LGP-Desert Cities Partnership	Local Government Partnership	50,600	
LGP-Kern Co Partnership	Local Government Partnership	208,464	
LGP-LA Co Partnership	Local Government Partnership	433,946	
LGP-LG Regional Resource Placeholder	Local Government Partnership	644,867	
LGP-New Partnership Programs	Local Government Partnership	2,787,899	
LGP-Orange Co Partnership	Local Government Partnership	271,938	
LGP-Regional Energy Efficiency Pilots	Local Government Partnership	-	
LGP-Riverside Co Partnership	Local Government Partnership	294,117	
LGP-San Bernardino Co Partnership	Local Government Partnership	289,717	
LGP-San Joaquin Valley Partnership	Local Government Partnership	194,289	
LGP-San Luis Obispo Co Partnership	Local Government Partnership	214,563	
LGP-Santa Barbara Co Partnership	Local Government Partnership	229,294	
LGP-SEEC Partnership	Local Government Partnership	295,394	
LGP-South Bay Cities Partnership	Local Government Partnership	307,932	
LGP-Ventura County Partnership	Local Government Partnership	336,161	
Total Local Government Partnership		6,811,828	

**Attachment B—Southern California Gas Company’s Response to
Ruling Attachment A: Utilities and A.3. Specific Questions for SoCalGas**

Table 9-C (Corrected)

Program	Sector/Category	2013-14 Budget	2013-14 Gross
			Therm Savings
3P-PACE	Non-Resource Mkt. & Outreach	1,300,000	
3P-PACE (Utility)	Non-Resource Mkt. & Outreach	37,693	
Total Non-Resource Marketing & Outreach		1,337,693	
3P-CLEO	Residential	450,000	
3P-CLEO (Utility)	Residential	37,323	
3P-HERS Rater Training Advancement	Residential	1,143,480	
3P-HERS Rater Training Advancement (Utility)	Residential	113,029	
3P-LivingWise	Residential	1,914,000	1,450,790
3P-LivingWise (Utility)	Residential	58,357	
3P-Manufactured Mobile Home	Residential	5,400,000	1,006,815
3P-Manufactured Mobile Home (Utility)	Residential	122,069	
3P-MF Direct Therm Savings	Residential	3,940,000	1,168,960
3P-MF Direct Therm Savings (Utility)	Residential	122,669	
3P-MF Home Tune-Up	Residential	2,040,000	582,093
3P-MF Home Tune-Up (Utility)	Residential	60,602	
SW-CALS-Energy Advisor	Residential	1,710,997	
SW-CALS-EUC WHUP	Residential	10,696,979	684,288
SW-CALS-MFEER	Residential	2,411,550	1,157,850
SW-CALS-Plug Load and Appliances (incl. POS)	Residential	17,131,897	3,245,009
SW-CALS-Residential HVAC	Residential	306,436	
SW-CALS-RNC	Residential	5,713,387	383,064
SW-FIN-ARRA-Originated Financing	Residential	4,000,000	
Total Residential		57,372,775	9,678,869
LIInstP-CA Department of Corrections Partners	Statewide Partnership	518,394	
LIInstP-California Community College Partners	Statewide Partnership	703,435	
LIInstP-State of CA/IOU Partnership	Statewide Partnership	545,717	
LIInstP-UC/CSU/IOU Partnership	Statewide Partnership	946,060	
Total Statewide Partnership		2,713,605	
SW-WE&T-Centergies	Workforce, Education & Training	4,999,972	
SW-WE&T-Connections	Workforce, Education & Training	854,580	
SW-WE&T-Strategic Planning	Workforce, Education & Training	300,001	
Total Workforce, Education & Training		6,154,553	
Total w/o EM&V		168,760,054	
EM&V-Evaluation Measurement & Verification	EM&V	7,198,505	
Total w/ EM&V		175,958,559	53,248,393

* Commercial, Cross-Cutting, and Residential program budget subtotals may differ from those shown in Table 3 due to slight differences in classification of subprograms.
