

**SOUTHERN CALIFORNIA GAS COMPANY DATA REQUEST No. 1
FOR SOUTHERN CALIFORNIA REGIONAL ENERGY NETWORK FOR
SOCALGAS TERRITORY FOR 2013-2014 (SOCALREN)**

The response to this data request is being requested by August 10, 2012. Partial responses submitted prior to the due date are appreciated. Please provide your responses electronically.

Please send responses to:

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1. Please provide supporting documentation (i.e., workpaper submitted to Energy Division or 2011 DEER database reference) for Gross Measure Cost (column L, Input tab), Gross Unit Annual Gas Savings (column V, Input tab), and Effective Useful Life (column F, Input tab) in the following E3 calculator input worksheets: *Working Copy of EC Flex Path E3 Gas Fixed Rebate Rev 2.xls*; *Working Copy of SC MF E3 SCG Fixed Rebate Rev 2.xls*; and *Working Copy of SoCalREC E3 Gas Therm Based Rev 1.xls*
 - A. Gross Measure Cost (column L, Input tab)
 - i. Flex Path and Multifamily E3 calculators contain the same measures and have the same supporting documentation for these inputs. The column name is not what is contained in the column in its entirety. This list of measures is shared with another list which is the same and is submitted to the electric utility. Together, the two E3 calculator Input tab columns add to the gross measure cost. The basis for the gross measure cost, combined, varies from measure to measure. There are no workpapers or DEER

references to support the assumptions that are presented in the referenced E3 calculators.

- a. For the insulation and radiant barrier measures, the measure cost is approximately \$1/SqFt. The average sized installation was estimated and the cost of the measure was shared across the two utilities according to the weight of the shared component of the utility within the program overall. What is being represented in this calculator's column L is the SCG contribution to the estimated average gross measure cost. These standard insulation measures are estimated to cost approximately \$1,500 (1,500 SqFt average home size).
- b. Cool roof products have come down in cost recently to the point where they can be sprayed onto roof surfaces at a cost comparable to a standard insulation installation. We have used the same \$1/SqFt and 1,500 SqFt average estimates for this measure in lieu of DEER. The cost is shared with the electric utility E3 calculator.
- c. Building leakage sealing costs are also estimated by our team since there is little supporting documentation on this measure. We have used the same \$1/SqFt and 1,500 SqFt average, estimate for this measure in lieu of DEER for this measure. The cost is shared with the electric utility E3 calculator.
- d. The typical installed cost is \$300 for each window. Due to the wide variety of installation options, we chose to estimate the measure with a limited number of windows replaced as part of a project (6 - 8 x \$300 windows as an average project). It may be more or less, but that is our assumption. The cost is shared with the electric utility E3 calculator.
- e. The estimated costs for a new furnace, installed, was looked up in the RS Means mechanical cost data 2012 resource, pg. 370 (75 MBH input @ \$1,050) and the appropriate share of the cost was allocated in

the gas company E3 calculator. Since this measure is almost entirely a gas measure, very little of the cost is attributed to the electric utility.

- f. Duct sealing and insulating is estimated at approximately \$10 per linear foot of duct. This is supported in the RS Means plumbing cost data 2012 resource, pg. 315-316. A typical home has 1 foot of duct for each 10 SqFt. The 1,500 SqFt home would have 150 feet of duct and cost an estimated \$1,500 for these measures. The gross measure cost is conservative for this measure. The cost is shared with the electric utility E3 calculator.
- g. The duct replacement estimated cost is shared with the electric utility E3 calculator. What is presented herein is the contribution to the gross measure cost of the SoCalGas E3 calculator. In order to see the entire cost of this measure, it is necessary to examine both calculators. Duct replacement costs are supported in the RS Means mechanical cost data 2012 resource, pg. 324.
- h. Crawlspace insulation is more expensive than standard insulation due to the difficulty associated with the installation under the floor. For this reason, this measure was attributed a higher gross measure cost than the standard insulation measures. The cost is shared with the electric utility E3 calculator. The gross measure cost is conservative for this measure.
- i. Wall insulation is more expensive than standard insulation due to the difficulty associated with the installation in the walls. For this reason, this measure was attributed a higher gross measure cost than the standard insulation measures. The wall insulation estimated cost is shared with the electric utility E3 calculator. What is presented herein is the contribution to the gross measure cost of the SoCalGas E3 calculator. In order to see the entire cost of this measure, it is necessary to examine both calculators.

- j. The cost of a tank water heater, installed, is approximately \$1,200 – \$1,500. The tankless water heater gross measure cost is estimated in the range of \$1,000 - \$2,000 depending on the model and the complexity of the installation. The RS Means plumbing cost data 2012 resource, pg. 279 lists the installed cost of a 50 gallon residential atmospheric domestic water heater at \$1,400 and a 9.5 GPM tankless water heater at \$1,425. Therefore, we attribute an equal installation cost to these two measures.
 - k. Thermostat installations are typical to almost every Flex Path project. This measure also shares its installation cost with the electric utility E3 calculator. Thermostat replacement costs are supported in the RS Means mechanical cost data 2012 resource, pg. 271.
- ii. SoCalREC E3 – We are accepting the change from our estimated value for this field to the SoCalGas Company provided input. The cited reference is “Used weighted average of SCG PID 3710”.
- B. Gross Unit Annual Savings (column v, Input tab)
- i. Flex Path E3 & MF E3 – The submitted savings data is based on the simulation of many homes using Energy-Pro software. Energy-Pro software is approved for use by the CPUC in modeling the energy usage and energy savings from energy efficiency measures for the Energy Upgrade California Program. The energy savings we report are the result of Energy-Pro simulations. The models were run for the measures identified in the measures list and for each of the climate zones. Please see the attached Energy-Pro output file for the details of this modeling. The filename is ‘WB-Flex Path 5 CZs Workbook.xlsx’
 - a. The energy savings for the Flex Path projects were taken directly from the referenced Excel workbook as these spreadsheet data represent single family dwellings.

townhouse, 2-3 story, etc.) and building age for individual program participants.

A. Flex Path and Multifamily E3 – In general there are at least two measures required to generate a Flex Path project. The rebate to the customer is divided up into four parts so that when two measures are implemented, the electric and gas incentives will add to equal the Flex Path incentive. Most projects will have more than two measures associated with them. Since there are very likely going to be many projects with more than two measures, the estimated incentives for the measures is a conservative number and will most likely be less than estimated. This means that the TRC is actually going to be higher than what is calculated and will vary based on the number of projects with more than two measures. The Flex Path single family program targets 5,000 homes while the multifamily program targets 8,000 homes.

- i. The installation values are tiered to represent the level of insulation that exists in the dwelling. For instance, if a home already has insulation of R-19, they are far less likely to implement the insulation measure than a home with R-0 for the baseline. A second tier of installations is applied for warmer weather climate zones. Homes in the more severe climate zones are more likely to implement the insulation measures than homes in the milder climate zones. Using this logic, the insulation measures were distributed across the climate zones for the areas targeted by the program.
- ii. Furnace replacement targets were estimated based on the program goals of the number of units to reach and the likelihood that there would be a furnace replacement along with a thermostat replacement, or just an insulation upgrade with a thermostat replacement.
- iii. Program experience demonstrates that there are thermostat replacements conducted as part of most all Flex Path projects.

iv. Duct insulation and replacement along with duct sealing is also a very common measure in the Flex Path projects.

v. Domestic water heater replacements to tankless and tank type are also common measures in these Flex Path projects.

B. SoCalREC E3 – There are a number of measures planned that will impact the gas usage directly from boiler tune-ups to Retrocommissioning the building systems.

i. There are also indirect measures such as air balancing and outside air control measures that will reduce boiler usage by limiting outside air, during heating mode, to minimum levels, in a controlled manner.

ii. In constant volume systems with terminal hydronic reheat, the system can be upgraded through retrocommissioning to reduce reheating during cooling mode by increasing supply air temperature so that at least one zone does not require reheat. This reduces the reheat to all of the zones on the air-handler.

iii. The program has targeted the therm savings indicated in the E3 calculator and the measures to be implemented will vary from project to project. The number of possible measures and combinations are too numerous to list them all in this documentation. They include, but are not limited to optimum start-stop, air-handler scheduling, boiler lockout, the previously discussed supply air temperature reset, boiler tune-ups, boiler heat recovery, and the list goes on.

3. Please provide the project details (i.e., building square footage, measures installed, measure efficiency –both pre- and post, kwh and therms saved, project cost, climate zone, number of occupants, incentives provided by LA County, incentives provided by SoCalGas, incentives provided by other parties), for each of the 521 “upgrades achieved (completed)” listed in Figure

3 (page 8) of the *Motion for Consideration of the Southern California Regional Energy Network for Southern California Gas Company's Service Territory for 2013-14* (SoCalREN PIP). To the extent that data exists please provide the same information for "number of upgrades promoted (completed and in process)" from Figure 3.

	Completed Projects as of June 14, 2012 (figures used in the SoCalREN PIP)	Completed Projects as of July 31, 2012
Flex Path	281	504
SCE/SoCalGas	217	298
SoCalGas Only	23	37
Total Completed Projects	521	839

See attachments "3_Flex_SCG Request_082012.xlsx" and "3_Basic and Advanced_SCG Request.xlsx" for supporting data.

4. "As discussed in general terms herein and in greater detail in the attached Program Implementation Plan and in Section V below, this SoCalREN Application is designed to complement SCG's Application **without overlap** and is therefore reasonable and consistent with the provisions of the 2013-2014 Energy Efficiency Portfolio Application Information Requirements (Chapter 4)." (p. 2 of Motion, emphasis added). Please explain features of the proposed SoCalREN programs that are complementary or unique to each of the following program efforts (and associated measures) proposed by SoCalGas in its 2013-14 EE application:
 - a. Multifamily Direct Therm Savings Program (3P);
 - b. Multifamily Home Tune-up Program (3P);
 - c. Multi-Family Direct Therm Savings Program (3P);
 - d. Multifamily Energy Efficiency Rebate Subprogram (SW);
 - e. Whole Home Upgrade Subprogram (SW);

- f. Plug Load & Appliance Subprogram (SW); and
- g. Energy Savings Assistance Program (ESA).

4. a., b. and c. Multifamily Direct Therm Savings and Home Tune-up Programs

The Multifamily Direct Therm Savings and Home Tune-up Programs function first and foremost as lead generation programs for the SoCalGas multifamily incentive programs: ESA, MFEER, and WHUP. If SoCalGas is in agreement that the SoCalREN Multifamily Incentive Program can serve as the SoCalGas multifamily WHUP , then it would make sense for the Direct Therm Savings and Home Tune-up Programs to generate leads for the SoCalREN incentive program.

To facilitate that outcome, the SoCalREN will train the Direct Therm Savings and Home Tune-up implementers on the incentive program's policies and procedures, provide them with program marketing collateral, and coordinate with them on protocols for transmitting leads. Through these steps, the Multifamily Direct Therm Savings and Home Tune-up Programs will be complementary to the SoCalREN Multifamily Incentive Program, just as they are complementary to the balance of the SoCalGas multifamily portfolio.

4. d. Multifamily Energy Efficiency Rebate Subprogram (MFEER)

The SoCalREN Multifamily Incentive Program focuses on permanent improvements to the building. Many of the MFEER-eligible measures constitute permanent improvements and thus raise the potential for double-dipping. The SoCalREN Single Point of Contact (SPOC) will work with property owners to develop property-specific needs assessments and determine whether those needs are best met through participation in MFEER, the Multifamily Incentive Program, or a combination of the two. In doing so, the SoCalREN will coordinate with SoCalGas to ensure that there is no double-dipping on technologies that might qualify for both programs. The

SoCalREN will further coordinate with SoCalGas and SCE to accomplish successful program integration per the metrics established by the Commission in D.08-11-031.

4. e. Whole Home Upgrade Program

Clearly the greatest potential for overlap between SoCalREN's proposed Multifamily Incentive Program and Flex Path Programs and the SoCalGas portfolio is around the Whole Home Upgrade Program.

LA County's Multifamily 2011-2012 pilot was designed and implemented as a multifamily component to Energy Upgrade California. Likewise, LA County's 2011-2012 Flex Path pilot was designed and implemented as an alternative to the Basic Package under Energy Upgrade California. The intent of the SoCalREN's proposal is to expand these two pilots to serve the entire SoCalGas service territory and, in doing so, satisfy the ongoing need for a robust Basic Package and multifamily component to the Whole Home Upgrade Program. This approach extracts maximum value from the field experience gained in the LA County pilots and offers a pathway to scale these programs more quickly than the IOUs are currently proposing.

To succeed in this effort, the SoCalREN must coordinate closely with both SCE and SoCalGas on program design and implementation. Negotiations with SCE have already been initiated and similar negotiations with SoCalGas are urgently needed.

The SoCalREN Multifamily Incentive Program incorporates key design elements that align with the joint utility advice letter regarding a multifamily pilot for Energy Upgrade California (Advice No. 4312-G-A, et al.):

- Comprehensive building assessments to identify potential energy savings opportunities, utilizing best practices established through BPI and HERS

- Integration with ESAP and MFEER
- Combustion appliance safety protocols consistent with industry best practices, as established by BPI
- Performance-based incentives tied to percent energy reduction on a per-dwelling unit basis
- A Single Point of Contact (SPOC) to help the property owner or manager navigate through the incentive process

Like SDG&E and consistent with the HERCC recommendations, SoCalREN adopts a consultant model for program delivery. This approach allows the property owner or manager to work with contractors with whom they have long-established relationships rather than limiting them to Program-designated contractors. More importantly, it gives the Program much needed flexibility to align its procedures with external funding and financing sources that property owners will need to access to bring a project to fruition. In addition to ESAP and MFEER, key sources include the OBR pilot, CHF and other energy efficiency finance programs that may enter the market, Low Income Housing Tax Credits, and loan programs through Fannie Mae, HUD, and the California Housing Finance Authority.

Moving forward, SoCalREN seeks to confer with both SCE and SoCalGas on a number of program design issues of particular importance to the IOUs, including but not limited to:

- Program cost-effectiveness
- Ongoing refinement of combustion appliance safety protocols
- Coordination with ESAP and MFEER
- Energy savings and modeling software
- Program evaluation, measurement, and verification
- Data sharing

4. f. Plug Load & Appliance Subprogram

The SoCalREN Multifamily Incentive and Flex Path Programs focus on permanent improvements to the building, thereby limiting overlap with the Plug Load and Appliances Subprogram. Appliances of interest to property owners as part of a whole-building retrofit will generally be permanently installed white goods such as refrigerators. SoCalREN will coordinate with SoCalGas to ensure that there is no double-dipping on technologies that might qualify for both programs.

The Multifamily Incentive and Flex Path Programs will serve as useful lead generation channel for the Plug Load & Appliance Subprogram (PLA). The SoCalREN implementers will be equipped with the necessary knowledge to assist customers in maximizing their comfort, security and savings by helping them make the right choice in energy efficient solutions. The programs will encourage property owners to select plug load and appliance technologies from qualifying PLA list and refer property owners to appropriate appliance recycling programs. The Multifamily Program SPOC will also solicit property owner support in disseminating PLA program information to residents.

4. g. Energy Savings Assistance Program

The IOUs have been directed by the CPUC to pursue full coordination between the Energy Savings Assistance (ESA), Energy Upgrade California (EUC), Multi Family Energy Efficiency Rebate (MFEER), and Middle Income Direct Install (MIDI) programs. The SoCalREN is committed to accepting this mandate as extending to the Multifamily Incentive Program as well. In particular, the SoCalREN proposes to coordinate with SoCalGas and SCE to accomplish successful program integration per the metrics established by the Commission in D.08-11-031:

- (i) Interdepartmental Coordination: Increased coordination in work efforts between departments within the utility. This type of integration

results in cost and/or resource savings as well as one or both of the following:

- Consolidation of work efforts; and
- Elimination of overlapping and/or repetitive tasks.
- (ii) Program Coordination: Increased coordination between multiple programs managed by the utility. This type of integration results in cost and/or resource savings as well as one or both of the following:
 - Increased services provided to customers; and
 - Greater number of customers served by a program.
- (iii) Data Sharing: Increased information and data sharing between departments within the utility and/or multiple programs managed by the utility. This type of integration results in cost and/or resource savings as well as one or both of the following:
 - Greater number of customers served; and
 - Consolidation of work efforts.
- (iv) ME&O Coordination: Consolidation of marketing, education and outreach for multiple programs managed by the utility. This type of integration results in cost and/or resource savings as well as any or all of the following:
 - Greater number of customers reached;
 - More cost effective marketing, education and/or outreach to
 - customers; and
 - Elimination of customer confusion.

5. Please provide the SoCalREN workpapers showing measure descriptions and expected savings for each of the measures listed in Figure 5 (p. 12).

It is our understanding that workpapers are not required for DEER measures. Workpapers are being developed for measures per request of Energy Division. Below is a list of new technology measures that was provided to us by the Energy Division, and is included in the motion for illustrative purposes only.

Figure 5: Sample list of Systems and Technologies

LED Lighting – Residential and Commercial
Hot/Dry AC Systems
Evaporative Cooling
Indirect Evaporative Cooling
Ductless Air Conditioning
Water-Cooled Heat Exchangers for HVAC Equipment
Residential Night Ventilation Cooling
Heat Pump Water Heaters
Condensing Gas Water Heater
LED for Street, Area, & Parking Lot Illumination
Improved Data Center Design
Improved Air-Flow Management
Variable-Speed CRAC Compressors
Advanced Lighting Controls
Evaporator Fan Controller for Medium Temperature Walk-Ins
Combined Space and Water Heater
Advanced HID Lighting - Pulse Start and Ceramic Metal Halide
Fault Detection and Diagnostics
Variable Refrigerant Flow
Advanced Steam Trap Systems
Reduced Working Temperature for Asphalt
High Performance Rooftop Unit
Comprehensive Commercial HVAC Rooftop Unit Quality Maintenance

6. Please list the training programs proposed and provide a complete description of their function. How does the SoCalREN propose to coordinate with the

Statewide IOU Workforce Education and Training program, particularly with regard to Energy Upgrade training activities?

The training programs proposed are already described in the SoCalREN PIP. We believe that the level of detail that has already been presented is sufficient to inform the IOUs and the CPUC as to the scope and breadth of the proposed training efforts. Discussions are in process with SCE to ensure that there is no overlap between the SoCalREN and SCE workforce education and training activities. SCG should be a part of these coordination discussions on a go-forward basis to ensure that the respective efforts of all the involved parties are in concert. All SoCalREN training activities will be coordinated with the Statewide IOU Workforce Education and Training program guidelines and other directives from the CPUC.

Please see sample curricula described in attachment “6_EUC WF Trainings” and pg. 13 in Motion, pg. 64-70 (Contractor Training, Scholarship and Support) and pg. 101 ((i)Sub-Program Specific Training) in PIP.

7. Please provide a citation indicating where in the SoCalREN Motion submitted to the CPUC for the SoCalGas service territory it is specified how much funding will come from additional state, federal, local, grant, and other sources for SoCalREN’s proposed 2013-2014 programs.

EECBG

Remaining EECBG funds: \$1,551,589.61 as of August 14, 2012 incentives for EUCLA Advanced and Basic Packages and for Flex Path projects and program management (LA County only)

These grant funds (approximately \$1.5 million) are available for the term of the LA county EECBG which is scheduled to end on September 27, 2012. However, LA County has requested and DOE is in the process of granting, an extension to September 27, 2013. We will likely end the Advanced/Basic

matching incentive in September of 2012 and even if the grant is extended, any additional EECBG funds will be used to support Flex Path. These funds may only be used within LA County.

Additionally, EECBG funds were used for Financing credit enhancements in the existing single family financing (Matador's) program. Funds were used for Loan Loss Reserve (LLR) \$988,000 and Interest Rate Buydown (IRB). These credit enhancements support the existing Matador's financing program with loans only available for EUC and Flex Path projects. The LLR is available indefinitely as collateral for missed payments and loan defaults. In general, the LLR provides collateral for a limited amount of loans (e.g., the existing LLR provides collateral for 10 times the amount in actual loans). The IRB provides a direct subsidy to the cost of a financed project by reducing the principal amount financed. It does not last indefinitely and the existing IRB pool is expected to be exhausted before the end of 2012. It will not be replenished using grant or ratepayer funds.

Better Buildings Program

The BBP grant funds described below are available for the term of the LA county BBP grant agreement which is scheduled to end on June 2, 2013.

Remaining BBP funds in Community Rewards are \$1,817,800.00 as of August 14, 2012. These funds may be used for Energy Champion incentives and Single Family (Flex, Basic, and Advanced Path) projects. Energy Champions is a community based social marketing program that encourages non-profit organizations to promote the Energy Upgrade California message for the good of their communities and the environment. Enrolled Energy Champions earn up to \$500 for each homeowner they educate about the program who completes an Energy Upgrade California project in Los Angeles County.

Remaining BBP funds in Green Building Labeling are \$405,000.00 as of August 14, 2012. These funds are used to incentivize homeowners to go

beyond their Energy Upgrade and consider a green label for their home. A green building verifies that home upgrades installed are according to proven green standards, and can improve property values at time of sale.

Remaining BBP funds in Multifamily are \$928,700.00 as of August 14, 2012. Technical and financial assistance is being offered to support energy efficiency and green upgrades of existing multifamily properties. These funds are used to incentivize multifamily building owners to undertake whole building retrofits, in accordance with program requirements.

Remaining BBP funds in Coop Marketing are \$284,598.20 as of August 14, 2012. This program is designed to support contractors in their marketing efforts. It subsidizes print on demand up to \$1,000 plus provides 50 percent matching funds up to a total max of \$20,000 per participating contractor enrolled in the program. This program encourages the spread of the Energy Upgrade California message in a cost effective way that still ensures brand integrity.

Remaining BBP funds in HVAC are \$97,000.00 as of August 14, 2012. This program is meant to prepare HVAC contractors for home performance and incorporation of Quality Install (QI) requirements. The funds are used to incentivized contractors that turn an HVAC project into a whole house Energy Upgrade and complete QI calculations. The purpose of this effort is to provide HVAC contractors with incentives, training and resources that will encourage installation of comprehensive energy upgrades at the point of HVAC replacement, service or maintenance.

CEC

The CEC has provided additional Financing credit enhancement funds to LA County which will be used indefinitely; the current CEC grant agreement is

extended to March 30, 2017 and is expected to be extended regularly as long as the funds are being utilized for programs identified.

\$6 million is used as a revolving loan fund for County municipal building energy projects. The project energy savings will be paid back by County municipal building owners and will be used to fund other projects. The mechanics of this pilot program (technical scope, budgeting procedures, compliance with local government financing and accounting protocols, marketing/education/outreach) will be promoted, explained, and presented to other jurisdictions for possible replication using ratepayer funds as a RLF source.

The remaining \$5 million is intended to be used for these purposes (as included in the LA County, CEC agreement) and require CEC approval:

- Additional LLR for existing energy financing programs to be expanded to other jurisdictions (LA County and Santa Barbara County);
- Debt Service Reserves for the LA County PACE program;
- LLR for a soon to be developed Multifamily financing program that supports the Flex Path MF pilot;
- Implementation of HERSII ratings and assessments for homes through financing programs (not designed yet).

Through the Metropolitan Transit Authority (MTA) and UCLA, the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC) has received a \$1 million grant from the State Strategic Growth Council. This grant will be used to continue ongoing LARC efforts at development of an LA County-wide Climate Action Plan. Using LA County EECBG funds, the LARC is developing a region-wide GHG baseline inventory (and has been working with SCE and SCG on data requests). The SGC funds will be used to complete or enhance the baseline, develop reduction strategies, quantify potential costs/benefits of the reductions strategies, and seek to achieve region-wide consensus on them, and develop

action plans and potential funding sources for implementation. This work will seek to develop (with IOU and Municipally Owned Utility input) region-wide assessment, adoption and future implementation of energy-related codes and standards for local jurisdictions. This is described in the SoCalREN PIP under support for LARC work. The requested PIP budget for the LARC will support the energy-related work under the broader LARC program. For more information about LARC, please visit the website:

<http://www.environment.ucla.edu/larc/about/>

8. Please indicate how SoCalREN will leverage the US DOE Energy Efficiency and Conservation Block Grant (EECBG), Better Buildings Program (BBP) grant, LA County's DOE grant, Flex Path, and any other grants referred to in the proposal.

Please see response to Question #7.

9. Please provide an outline of SoCalREN's current role in the development and implementation of reach codes & standards.

There is a very limited role for development and implementation of codes and standards proposed for the SoCalREN. Through the Metropolitan Transit Authority (MTA) and UCLA, the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC) has received a \$1 million grant from the State Strategic Growth Council. This grant will be used to continue ongoing LARC efforts at development of an LA County-wide Climate Action Plan. Using LA County EECBG funds, the LARC is developing a region-wide GHG baseline inventory (and has been working with SCE and SCG on data requests). The SGC funds will be used to complete or enhance the baseline, develop reduction strategies, quantify potential costs/benefits of the

reductions strategies, and seek to achieve region-wide consensus on them, and develop action plans and potential funding sources for implementation. This work will seek to develop (with IOU and Municipally Owned Utility input) region-wide assessment, adoption and future implementation of energy-related codes and standards for local jurisdictions. This is described in the SoCalREN PIP under support for LARC work. The requested PIP budget for the LARC will support the energy-related work under the broader LARC program.

10. Please provide an explanation of how SoCalREN will accelerate the development and implementation of reach codes and standards.

Please see response to Question #9.

11. Please explain how SoCalREN will support IOU “enforcement of code” as noted on page 116 of the PIP.

With respect to Flex Path and Multifamily, permit number information for projects will be collected by the SoCalREN as a part of the application process. SCE has agreedn, in principle, to this approach as it is how the IOUs currently handle this aspect of the EUC program. These protocols will also need to be discussed and developed in concert with SCG similar to how the EUCLA program has been operating.

12. Please indicate where in the SoCalREN Motion submitted to the CPUC for the SoCalGas service territory it is specified how new technology and best practices will be promoted through building planning and permitting processes.

Please reference page 12 of the Motion.

13. Please indicate how SoCalREN will coordinate with IOUs to offer Flex Path to low and moderate income market.

There has been no discussion to date with the IOUs on targeting Flex Path or other EUC upgrade programs specifically to low and moderate income markets. It is proposed that the Flex Path program implemented by the SoCalREN will be available to all eligible IOU customers regardless of income levels. However, we believe that there are numerous opportunities to identify and specifically target low/moderate income applicants. In fact, this is one of the main advantages of Flex Path as it provides a more affordable entry point to whole house energy upgrades for low/moderate customers who are presently faced with a high initial out of pocket capital cost for the EUC advanced path. The SoCalREN proponents look forward to collaborating with SCG and SCE on innovative and effective marketing and outreach and program design strategies that can greatly expand participation in these programs by low/mod income customers.

The Low Income Residential Rehabilitation Pilot proposed under the SoCalREN PIP seeks to integrate Advanced and Basic Upgrades into the existing LA County Public Housing Authority (PHA) rehabilitation program. Similar to EUCLA, rather than upgrade these low-income residential properties with ESAP single-measures, PHA will encourage and train their contractors to become participating EUC contractors and integrate Advanced/Basic or Flex Path upgrades. This program will co-exist with existing ESAP incentives and PHA staff will ensure no “double-dipping” occurs. Only the EUC incentives and PHA program management will be funded. The costs of the entire rehabilitation upgrades, including the associated energy upgrade, are rolled into a loan for the resident. This pilot will introduce EUC to a variety of low-income contractors and is intended to move the mid/low-income market (rehabilitation, weatherization, noise abatement) to comprehensive energy upgrades.

Please see attachment “Flex Path Map 8 9 12.pdf”

14. Please provide clarification on participation guidelines, and detailed plans for serving SoCalGas customers in hard to reach areas.

In order to formulate detailed plans for serving SoCalGas customers in “hard to reach” areas, it is necessary to have a full and robust discussion with SCG regarding their own plans to do so. It will also be helpful to ensure that SCG’s and the SoCalRENs definitions of hard to reach customers are consistent, i.e. we see many potential categories for hard to reach that include language, geography, income level, awareness level and limited access to technical resources all as very serious barriers to participation that need to be overcome.

Please see attachment “Flex Path Map 8 9 12.pdf”

15. Please indicate where in the SoCalREN Motion submitted to the CPUC for the SoCalGas service territory it is specified how SoCalREN will coordinate with IOU local government partnerships.

Please see Figure 1: California Local Government Regional Energy Networks on Page 5 of the Motion. For more details, please see the attachment “SCREN - Comparison to IOU Programs - Overview”

16. Please indicate how SoCalREN’s multifamily pilot incentive program for 2013-2014 will work with IOUs to address low income customers. Please see #4 Question and Response as it pertains to coordination with funding and financing sources for affordable housing providers.

While on the surface the Multifamily pilot incentive appears to overlap with CAHP, there are synergies created for greater market penetration and reduction in energy usage. Both incentives overlap in that they incentivize

deep energy efficiency, including green building certification and the practice of design charrettes. Unlike the CAHP, the pilot will be available to affordable housing developers only at the early stage of design development and it will require early involvement by a sustainability/energy consultant, commitment to implement whole building utility monitoring post construction, and leveraging of other energy efficient programs and specifically participation in CAHP.

It is our belief that developer/owners of affordable housing are more ready to invest in long-term savings but are not currently taking full advantage of available IOU programs as it would be assumed. The affordable housing industry deserves special consideration because it serves a vulnerable population of renters and developers/owners have a strong vested interest in incorporating sustainable features since they incur most of the operational costs as opposed to the tenant as in market rate housing. The affordability period for a typical tax credit affordable project is 55 years. Thus the pilot incentive is a tool to leverage funding for energy efficiency available from multiple sources that is not being pursued and can have lasting benefits to the project residents. Furthermore, the pilot incentive is connected to other incentives that contribute to energy and water conservation such as grey water irrigation system, plug-in electric vehicle readiness, passive cooling, whole building utility monitoring, renewable energy, and green education.

In early 2011, County staff met with SCG to discuss collaboration on marketing CAHP program. At this meeting we learned that although there is some participation by affordable housing developers it was not typical even though its basic program requirements can easily be met by most affordable developments. To ensure that developers would leverage IOU incentives and would not put off applying to CAHP it was decided that this would be incorporated as a standard requirement for our energy efficiency incentive. In 2012, 7 projects complied with this requirement: 6 through SGC and 1

through SCE. For projects approved in 2011 we only have evidence of one project participating in CAHP. A formal survey of developers has not been conducted by our office. Both SCE and SGC contacts for CAHP indicated they do not track affordable projects. They also said they thought that the County program requirement is the reason why the above projects applied to CAHP while still in the conceptual design phase. CAHP is available up to and prior to the drywall installation. Our office recognizes that the best time is before construction start so that SCE and SGC can influence energy efficiency on the whole project. It is at this stage that projects can benefit most from passive design solution. By pushing affordable housing developers to apply for CAHP incentives, the County strives for optimize the benefits to projects.

A barrier to keep in mind that is particular to the affordable housing industry is how projects are financed. Developers go through very competitive solicitations for multiple sources of funding from various local, state, and federal agencies which are rigorous and often for multiple millions of dollars. It is typical for a project to have 5 – 8 funding sources from various government programs and banks. Therefore, pursuing any energy efficiency incentives is not a priority. However, if participation in CAHP is required through the County pilot incentive there is assurance of participation. In the most recent round for 9% low income housing tax credits by the California Tax Credit Allocation Committee (CTCAC), there were a total of 117 applications of which 24 were for projects in Los Angeles County. It would be of great benefit to the industry if CTCAC required participation in CAHP given that TCAC also incentivizes deep energy efficiency and green building certification. Both County pilot incentive and CTCAC program are poised to leverage CAHP for greater benefit to low income renters.

Please see attached chart “low income single-family program comparison REV.xlsx” for a comparison of existing programs for low income single-family rehabilitation.

Notes:

<http://www.treasurer.ca.gov/ctcac/> 2012 Second Round Applicant Lists

17. Please explain SoCalREN’s marketing plan for each of its proposed programs. Please provide separate explanations for statewide and local marketing activities.

The marketing plans for the Flex Path and Multifamily programs will build upon the marketing efforts that are already underway during the current ARRA funded pilot. Many other of the EUC program components are also currently underway as pilots and will build upon the current marketing activities. SoCalREC marketing will build upon the current marketing activities that underway as part of the SoCalREC Flight 5.6 pilot. Similarly, some of the proposed financing programs are currently underway and the marketing will build upon these current activities. Much description is provided in the SoCalREN PIP as to proposed marketing approaches and activities for 2013-14. Other than current marketing materials and collateral from the current pilot programs as noted above, this is all that currently exists. One of the key next steps, once the SoCalREN proposal is approved by the CPUC would be the formulation of detailed marketing plans and scopes of work for each of the sub-programs and their components. We anticipate close coordination both with the IOUs and the CCSE on these approaches. It should also be noted that the SoCalREN does not plan any “statewide” marketing activities as the programs activities are limited to the SCG and SCE service territories, as is clearly specified in the SoCalREN PIP.

18. Please provide all copies of data requests and responses from other parties associated with the SoCalREN Motions submitted to the CPUC for any utility service territory.

Data requests related to the SoCalREN motion have only been received from SoCalGas. LA County has been working with SCE to address comments and will work with SCG and SCE moving forward.

In addition to the above responses, please see attachment titled “SoCalREN Response to Section III” addressing SCG Response dated August 3, 2012.