

**ORA DATA REQUEST
ORA-SCG-DR-043-TLG
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: JANUARY 21, 2015
DATE RESPONDED: FEBRUARY 5, 2015**

Exhibit Reference: SCG-13

Subject: Customer Service Technologies, Policies and Solutions

Please provide the following:

1. SCG forecasts \$20.857 million (\$12.715 million for Non-Shared, and \$8.142 million for Shared Services) for Test Year 2016 for its Customer Service Technologies, Policies and Solutions Operations and Maintenance (O&M) expenses. This is an increase of \$7.791 million or 59.63% (a 57.36% increase for Non-Shared and 63.30% increase for Shared Services) over 2013 recorded adjusted expenses of \$13.066 million. The five year average (2009-2013) is \$14.815 million and the three year average (2011-2013) is \$14.856 million.
 - a. SCG forecasts \$12.715 million for its Non-Shared Research, Development & Documentation Work Group expenses utilizing a zero-based cost methodology. This is an increase of \$4.635 million or 57.36% over 2013 recorded adjusted expenses of \$8.080 million. The five year average (2009-2013) is \$10.385 million. SCG states on page JGR-5 that “the 2012 General Rate Case (GRC) Decision (D.) 13-05-010 adopted an average annual funding level of \$9.511 million (in 2013 dollars) with all costs tracked via a one-way balancing account.” Provide documentation that explains specifically why utilizing a five year average methodology to forecast TY 2016 expenses of \$10.385 million for SCG’s Research, Development & Documentation Work Group is insufficient considering that SCG spent \$1.431 million or 17.71% less than authorized in its 2012 GRC and that its recorded expenses have declined each year between 2010 and 2013.
 - b. SCG states on page JGR-5 that “The RD&D program forecasts an increase of 4.4 full-time equivalents (FTEs) in TY2016 relative to BY2013 at an incremental cost of \$0.44 million.” For all proposed FTEs for TY 2016 for SCG’s Customer Service Technologies, Policies and Solutions (Non-Shared and Shared Services) provide all supporting documentation for the calculation of the labor forecast (i.e., the documentation that demonstrates the individual breakdown of all costs included in each of the labor calculations (including but not limited to labor, benefits, bonuses, overtime, etc.).
 - c. If SCG utilized a Market Reference Range to forecast labor costs for proposed FTEs, provide the source document for the Market Reference Range and any other documentation SCG utilized to forecast labor for FTEs.
 - d. Provide documentation that explains if the proposed costs for incremental labor for FTEs will be adjusted for experience of workforce and the type of work required, if so, state why SCG’s testimony and workpapers does not provide any discussion or calculations for salary adjustments in TY 2016.
 - e. For SCG’s Customer Service Technologies, Policies and Solutions provide the recorded adjusted 2014 labor and non-labor expenses as of December 31, 2014 in the same manner as shown in workpapers on page 65.

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Question 1 (Continued)

- f. Provide documentation that explains if SCG's TY 2016 Customer Service Technologies, Policies and Solutions GRC request includes projects that it also requested and received funding for in its 2012 GRC (D.13-05-010), if so, identify the projects and associated costs.

SoCalGas Response:

- a. *[Provide documentation that explains specifically why utilizing a five year average methodology to forecast TY 2016 expenses of \$10.385 million for SCG's Research, Development & Documentation Work Group is insufficient considering that SCG spent \$1.431 million or 17.71% less than authorized in its 2012 GRC and that its recorded expenses have declined each year between 2010 and 2013.]*

As explained in testimony, the RD&D program is managed over multi-year program cycles. The recorded expense for the four-year program cycle from 2008 through 2011 was \$39 million (nominal dollars) which is within 0.5% of the authorized funding for the program cycle. Relative to the specific years cited in the question, the difference in expense between 2010 and 2011 was not material (-\$19,000). The reduced spend in 2012 and 2013 was a result of postponement of projects due to the delay in the 2012 GRC decision and the level of program funding was uncertain.

The reason that a five-year average forecast methodology is not sufficient is that that methodology does not capture new or expanded areas of Research, Development and Demonstration (RD&D) required to meet new or more stringent regulatory requirements, which SoCalGas operations and its customers must meet. Accordingly, RD&D was forecast using a zero-based methodology with expected cost of projects in the various RD&D categories. The need for incremental RD&D resources and funding has two primary drivers identified on page JGR-5 of Exhibit SCG-13:

- Enhancing system safety and reliability and;
- Cost effectively meeting increasingly stringent environmental requirements including dramatic reductions in greenhouse gas and criteria pollutant emissions.

These drivers and the additional RD&D activities and funds they require stem from significant environmental and operational mandates documented in testimony on pages JGR-10 through JGR-13. These mandates are summarized below.

- Pipeline Safety and Reliability: The Department of Transportation's Code of Federal Regulations (49 CFR), the Commission's General Order 112-E, and the Commissions recently developed biomethane quality standards established new or enhanced natural gas pipeline safety and reliability standards or requirements.

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Response to Question 1a (Continued)

SoCalGas' planned RD&D supports advancement of technologies that enhance the safety and reliability of the natural gas system in the areas of inspection, monitoring, control and construction.

- **Energy Efficiency:** California continues to pursue ambitious energy efficiency goals. Specifically, the Commission's Energy Efficiency Program goals (D.12-11-015) require a reduction of natural gas consumption by 23.2 million therms per year for 2014 and similar target for subsequent years. Activities in the RD&D program supplement and support activities funded through the energy efficiency program in areas such as gas-fired distributed generation, appliances and industrial processes.
- **NOx and Particulate Matter (PM) Emissions Reductions:** The National Ambient Air Quality Standard (NAAQS) under the CAA require substantially lower fine particulate (PM2.5) and 8-hour surface-level ozone standards. These new standards require southern California to significantly accelerate its criteria pollution reduction efforts over the next decade. Meeting the standards will require reduction of NOx emissions of 80% or more in the South Coast Air Quality Management District (SCAQMD) and San Joaquin Valley Air Pollution Control District (SJVAPCD) by 2023 and 90% by 2032. Technology advancement in combustion science and after treatment is critical to meeting these goals.
- **Greenhouse Gas Emissions Mitigation:** AB32 directs the California Air Resources Board (CARB) to develop plans to reduce GHG emissions to 1990 levels by 2020 and Executive Order S-03-05 sets the target for California to reduce GHG emissions by 80% relative to 1990 levels by 2050. Meeting these targets requires dramatic advances in efficiency and development of renewable natural gas and low-carbon resources.
- **Indoor Air Quality:** The planned RD&D addressing indoor air quality is intending to support the development of new technologies that reduce formaldehyde, NOx, CO and Volatile Organic Compounds inside homes and businesses. Uses of unvented appliances in the kitchen (range & oven) are of primary concern.
- **Distributed Generation and Combined Heat and Power (CHP):** California Public Utilities Code Section 372(a) and Section 379.6(c) and Energy Action Plan call for expedited development of efficient, environmentally beneficial CHP. The CARB scoping plan for the implementation of AB32 established a target for 4,000 megawatt (MW) of additional CHP capacity by 2020 to combat GHG emissions. In addition Governor Brown has called for adding 6,500 MW of new combined heat and power by 2030. Progress in cost reduction, efficiency, and emissions control is needed to ensure that these goals can be met cost effectively

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Response to Question 1a (Continued)

- and provide the intended environmental benefits.
- **Alternative and Renewable Fuel and Vehicle Technology:** California law requires increased use of alternative transportation fuels and Executive Order S-01-07 establishes a state-wide goal to reduce (1) the carbon intensity of California's transportation fuels by at least 10 percent by 2020 and (2) reduce petroleum fuel use to 15% below 2003 levels by 2020. California Public Utilities Code Section 740.3 codifies the role of utility programs in facilitating the use of natural gas-fueled low-emission vehicles and supporting these goals.
 - **Zero Net Energy (ZNE):** The 2011 Integrated Energy Policy Report (IEPR) recommended triennial building standards updates that increase the energy efficiency of newly constructed buildings by 20 - 30 percent in every triennial update to achieve ZNE standards for newly constructed homes by 2020. The Report states that the adoption of a ZNE definition will enable the CEC to update the California Building Energy Efficiency Standards for 2016 and 2019 with clear orientation toward the upcoming ZNE targets for low-rise residential buildings in 2020 and nonresidential buildings in 2030. Development of efficient natural gas technologies to support local energy production can serve a critical role in meeting this goal, particularly considering the intermittent nature of photovoltaic generation, the predominant on-site generation technology.
 - **Renewable Portfolio Standard:** The state has in place the aggressive goal of increasing energy procured from eligible renewable energy resources to 33% of total procurement by 2020. Integration and firming of renewables is a growing concern for California and technologies at the intersection of the natural gas and electricity sectors can help address this need while increasing the utilization of existing natural gas infrastructure.
 - **Bioenergy Action Plan:** The CEC's 2012 Bioenergy Action Plan outlines strategies, goals, objectives, and actions that California state agencies will take to increase bioenergy development in California. The 2012 Bioenergy Action Plan states that the bioenergy market is underdeveloped and that "despite its many benefits, bioenergy production uses only 15 percent of California's available biomass waste and production is decreasing." Executive Order S-06-06 also established a goal to produce 20% of renewable electricity from biofuels by 2020 and establishes goals for increasing production of total biofuels from in-state resources with that fraction increasing to 75 percent by 2050. Accomplishing these goals requires advancement in the technologies to produce, process, and upgrade biogas.

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- The CA Solar Thermal Initiative: Commission D.13-02-018 and D.13-08-004 affirm the Commission’s commitment to expansion of solar thermal technologies and establish incentives for solar thermal applications for process heat, solar cooling, space heating systems, and solar pool systems. Significant technology advancement is needed to improve the cost and performance of these technologies.
- b. *[SoCalGas states on page JGR-5 that “The RD&D program forecasts an increase of 4.4 full-time equivalents (FTEs) in TY2016 relative to BY2013 at an incremental cost of \$0.44 million.” For all proposed FTEs for TY 2016 for SoCalGas’ Customer Service Technologies, Policies and Solutions (Non-Shared and Shared Services) provide all supporting documentation for the calculation of the labor forecast (i.e., the documentation that demonstrates the individual breakdown of all costs included in each of the labor calculations (including but not limited to labor, benefits, bonuses, overtime, etc.).]*

The labor forecast for SoCalGas’ Customer Service Technologies, Policies and Solutions are based on Sempra Energy Management Pay Bands and Market Reference Ranges Effective 01/01/2013 (attached as “ORA-SCG-DR-043-TLG-Q1c Attachment.pdf”). For example, the pay band used for the labor costs forecast for incremental RD&D program full time equivalents (FTE’s) are based on the SoCalGas Market Reference Range for a Project Manager 2 (PM2) position. This is consistent with the level of education, skills, knowledge and experience of SoCalGas staff in similar positions (RD&D staff positions require an engineering degree and several years of experience in technology development and project management). Candidate recruiting and selection are conducted to meet these standards. A similar approach was used to fill analyst, advisor, manager, and administrative positions in Policy and Environmental Solutions, NGV Program, Biofuels and Low-Carbon Energy Resources Market Development and Business Strategy and Development. All labor forecasts assume job levels consistent with the job requirements of the positions forecast.

Benefits and bonus costs were not included in the RD&D labor estimates because these costs, historical and forecasted, are sponsored by other witnesses. These costs are included in the testimony of witness Debbie Robinson, Exhibit SCG-21 (Compensation, Health & Welfare/Incentives). The CSTP&S forecasts do not include overtime expenses because these expenses have not been significant in the past and are not planned for the forecast period.

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- c. *[If SoCalGas utilized a Market Reference Range to forecast labor costs for proposed FTEs, provide the source document for the Market Reference Range and any other documentation SoCalGas utilized to forecast labor for FTEs.]*

Please see Sempra Energy Management Pay Bands and Market Reference Ranges Effective 01/01/2013 attached as file “ORA-SCG-DR-043-TLG-Q1c Attachment.pdf”.

- d. *[Provide documentation that explains if the proposed costs for incremental labor for FTEs will be adjusted for experience of workforce and the type of work required, if so, state why SoCalGas’ testimony and workpapers does not provide any discussion or calculations for salary adjustments in TY 2016.]*

In using the Sempra Energy Management Pay Bands and Market Reference Ranges Effective 01/01/2013, SoCalGas incorporates workforce experience. For example, a PM1 is an entry level project manager, a PM2 (experienced project manager) generally has five or more years of experience, and a PM3 is a senior project manager. Each position forecast was based on specific job requirements. The TY 2016 request is in constant 2013 dollars so cost escalation will be included based on the attrition mechanism requested in the testimony of witness Ron van der Leeden, Exhibit SCG-35 (Post-Test Year Ratemaking Cost Escalation).

- e. *[For SoCalGas’ Customer Service Technologies, Policies and Solutions provide the recorded adjusted 2014 labor and non-labor expenses as of December 31, 2014 in the same manner as shown in workpapers on page 65.]*

The 2014 recorded adjusted expenses will not be available until March 2015.

- f. *[Provide documentation that explains if SoCalGas’ TY 2016 Customer Service Technologies, Policies and Solutions GRC request includes projects that it also requested and received funding for in its 2012 GRC (D.13-05-010), if so, identify the projects and associated costs.]*

Customer Service Technologies, Policies and Solutions TY 2016 GRC request does not include any projects for which funds were authorized in the 2012 GRC (D.13-05-010). For example, the RD&D program authorization is for RD&D categories for which new projects are developed and solicited in each program cycle based on technology gaps and opportunities relevant at that time; there is no duplication of projects across cycles. Multi-year projects in progress at the end of a cycle are completed in the subsequent cycle, but they are not duplicative. This approach applies equally to funding for Policy and Environmental Solutions, NGV Program, Biofuels and Low-Carbon Energy Resources Market Development and Business Strategy and Development.

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2. Provide documentation that demonstrates the amount SCG's Customer Service Technologies, Policies and Solutions requested/forecast in its 2012 GRC and the amount it was authorized in its 2012 GRC (D.13-05-010). In the response provide the corresponding 2016 GRC account/Cost Center/Work Group. Provide the response in a spreadsheet similar to the one shown in workpapers on page 65.

SoCalGas Response:

Please see attachment "ORA-SCG-043-TLG-Q2 Attachment.xlsx" that contains tables for TY 2012 GRC Customer Service Technologies, Policies and Solutions Non-Shared and Shared forecasted and authorized costs.

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3. On page JGR-16, SCG’s Table JGR-7 shows TY 2016 RD&D Program Funding Forecast and shows the 2012-2015 Forecast average amounts for five programs. Provide documentation that demonstrates the recorded 2009-2013 expenses (and 2014 recorded if available) by program as shown in the Table.

SoCalGas Response:

The following table provides the recorded 2009-2013 RD&D expenses by program. The 2014 recorded adjusted expenses will not be available until March 2015.

**RD&D Program Expenses
 (Thousands of 2013 Dollars)**

Program	2009	2010	2011	2012	2013
Gas Operations	2,693	2,294	2,824	2,799	1,805
Customer Applications	1,250	1,520	711	938	454
Clean Generation	2,053	3,270	1,511	1,411	966
Clean Transportation	1,533	1,678	1,968	878	1,258
New, Renewable Energy Resources & Supply Technologies	2,642	3,902	5,631	2,338	3,598
Total	10,171	12,664	12,645	8,365	8,080

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4. Provide SCG's Customer Service Technologies, Policies and Solutions end of the year headcount and FTE count for 2009-2013 and the associated labor cost. In the response also provide the job classification and the assigned Cost Center/Work Group.

SoCalGas Response:

Please see attachment "ORA-SCG-043-TLG-Q4 Attachment.xlsx" for end of the year headcount by job classification, annual full time equivalent (FTE) count, and the associated labor cost for 2009-2013 by non-shared workgroup or shared service cost center. SoCalGas does not track FTEs by job classification therefore FTEs are reported in aggregate by workgroup or cost center.

Customer Service Technologies, Policies and Solutions developed its GRC forecast based on "FTE" not "Headcount." "Headcount" does not equal "FTE." An FTE position is an indication of activity level and not a specific headcount in any given year. In some cases, headcount may be less than the FTE count. For example, the activity level driving the forecasted incremental FTE in an operational area may ultimately be performed using internal labor, outside contractors, overtime or a mix of each. In other cases, headcount may be more than the FTE count if the positions are filled with part-time employees.

The Utilities do prepare a forecast of "Headcount" which is used for forecasting employee benefits only (Exhibit SCG-21). Headcount forecast encompasses all employees, including those whose work responsibilities are included in the GRC, as well as those whose duties are related to a refundable program or other functional area with costs approved through a non-GRC proceeding. Headcount is not used in the operating areas to forecast cost.

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5. On page JGR-7, SCG’s Table JGR-4 shows information for RD&D Authorized as a Percentage of Authorized Base Margin Revenues for 2008-2015 and an average for the period of \$9.823 million and SCG’s 2016 forecast of \$13.519 million. Provide documentation that demonstrates the actual recorded 2008-2013 data (and 2014 recorded data if available) and the calculated average as shown in the Table. In the response also include columns showing the data in Table JGR-4.

SoCalGas Response:

The table below shows recorded RD&D costs as a percentage of Authorized Base Margin Revenues for 2008 through 2013. The 2014 recorded adjusted expenses will not be available until March 2015.

RD&D Reorded Costs as a Percentage of Authorized Base Margin Revenues			
Year	Recorded Annual RD&D Expenditures	SoCalGas Annual Authorized Base Margin Revenues	RD&D Expenditures as a Percentage of Revenues
	\$000 Nominal		
2008	5,558	1,610,510	0.35%
2009	9,727	1,663,407	0.58%
2010	12,161	1,715,288	0.71%
2011	12,366	1,770,782	0.70%
2012	8,588	1,855,615	0.46%
2013	8,287	1,879,348	0.44%
Average	9,448	1,749,158	0.54%

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6. Provide documentation that demonstrates all recorded costs incurred for overtime/double-time for 2009-2013 for SCG's Customer Service Technologies, Policies and Solutions. Provide the recorded overtime/double-time costs in a spreadsheet similar to the one shown in workpapers on page 65.

SoCalGas Response:

Please see the file attached in response to Question 10 (“ORA-SCG-043-TLG-Q10 Attachment.xlsx”) for the detailed breakdown of overtime labor by workpaper group and shared service cost center within each of the applicable labor cost categories.

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7. Provide documentation that explains in detail and demonstrates why SCG's Customer Service Technologies, Policies and Solutions current funding levels are insufficient to meet proposed TY 2016 projects and activities.

SoCalGas Response:

Each cost center was forecast based on the most appropriate methodology which was generally a zero-base or base year plus incremental cost (modified zero-base) methodology based on public policy mandate and other work driver trends rather than historic program cost trends. In each case, historical costs and activity levels were used as guidance in forecasting the costs of the activity level forecast for TY 2016. The testimony in each area provides the justification for the forecast and identifies the activity areas requiring incremental funding, which is the justification for why prior levels of funding are not sufficient. As discussed for each cost group, there are a number of external drivers of increased activity levels. These Customer Service Technologies, Policies and Solutions (CSTP&S) activity drivers are summarized in Exhibit SCG-13, page JGR-iii:

- Federal Clean Air Act (CAA) standards for ozone, implemented through local air district regulations, requiring a reduction in emissions of oxides of nitrogen (NOx) of more than 80% from current levels by 2023 (California Air Resources Board, SCAQMD, SJVAPCD, Vision for Clean Air: A Framework for Air Quality and Climate Planning (2012) p.4).
- State policy calling for an 80% reduction in greenhouse gas (GHG) emissions relative to 1990 levels by 2050 (Governor's Executive Order S-3-05).
- New regulations related to the safe and reliable production and use of natural gas.

Drivers of incremental activity in each activity area are described briefly below.

Research Development and Demonstration (RD&D)

The need for incremental RD&D spending has two drivers listed on page JGR-5 of testimony (Exhibit SCG-13):

- Enhancing system safety and reliability and;
- Cost effectively meeting increasingly stringent environmental requirements (including dramatic reductions in greenhouse gas and criteria pollutant emissions).

These drivers and the incremental RD&D activities and funds they require stem from the following legislative, regulatory and administrative mandates described on pages JGR-10 through JGR-13 of Exhibit SCG-13:

- The Department of Transportation's Code of Federal Regulations (49 CFR), the CPUC's General Order 112-E, and the CPUC's recently established biomethane quality standards, enhanced natural gas pipeline safety and reliability standards.
- CPUC decision on Energy Efficiency Program goals (D.12-11-015) requiring

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reduction of natural gas consumption by 23.2 million therms per year for 2014 and similar targets for subsequent years.

- The National Ambient Air Quality Standard (NAAQS) under the Clean Air Act specifying substantially lower fine particulate (PM_{2.5}) and 8-hour surface-level ozone standards that will require reduction of NO_x emissions of 80% or more in the SCAQMD and SJVAPCD by 2023 and 90% by 2032.
- AB32 directing the California Air Resources Board (CARB) to develop plans to reduce GHG emissions to 1990 levels by 2020 and Executive Order S-03-05 sets the target for California to reduce GHG emissions by 80% relative to 1990 levels by 2050.
- Various indoor air quality goals supporting the development of new technologies to reduce formaldehyde, NO_x, CO and Volatile Organic Compounds inside homes and businesses.
- California Public Utilities Code Section 372(a) and Section 379.6(c) and Energy Action Plan II calling for the development of efficient, environmentally beneficial CHP.
- Executive Order S-01-07 establishing a state-wide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 and to reduce petroleum fuel use to 15% below 2003 levels by 2020.
- The 2011 Integrated Energy Policy Report (IEPR) recommending triennial building standards updates that increase the energy efficiency of newly constructed buildings by 20 - 30 percent in every triennial update and to achieve Zero Net Energy standards for newly constructed homes by 2020.
- California's renewable energy portfolio standard goal of increasing energy procured from eligible renewable energy resources to 33% of total procurement by 2020.
- The California Energy Commission's 2012 Bioenergy Action Plan outlining strategies, goals, objectives, and actions that California state agencies will take to increase bioenergy development in California; and Executive Order S-06-06 also establishing a goal to produce 20% of renewable electricity from biofuels by 2020 and establishing goals for increasing production of total biofuels from in-state resources with that fraction increasing to 75 percent by 2050.
- CPUC decisions D.13-02-018 and D.13-08-004 affirming its commitment to expanding solar thermal technologies and establishing incentives for solar thermal applications for process heat, solar cooling, space heating systems, and solar pool systems.

Specific RD&D technology needs and gaps, activities to address those needs and gaps, and the associated cost forecasts for the RD&D program are described in pages JGR-15 through JGR-18 of testimony. Additional details on specific technology needs and planned activities are provided in the attached document "ORA-SCG-043-TLG-Q7 Attachment.pdf", as shown in Exhibit SCG-13 Appendix B "Technology Needs Assessment."

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Policy & Environmental Solutions (P&ES)

Testimony on pages JGR-23 through JGR- 28 of testimony describes the incremental P&ES resources and staffing increases that are necessary to respond to the substantial increase in energy and environmental legislative, policy, regulatory activities documented above. These increased activities and costs include:

- Energy and environmental policy and regulations facing the natural gas sector such as the mid-term and long-term role of natural gas in the energy and transportation sectors, impacts on gas distribution customers of proposed policies and regulations pertaining to air quality, carbon emissions, methane emissions, and hydraulic fracturing among others. Specific new developments that need to be addressed in the TY 2016 time frame and beyond include: air quality management plans for the South Coast and San Joaquin Valley air districts, Natural Gas Act (AB1257) Implementation, greenhouse gas reduction measures, zero net energy building policies and methane emissions reduction policies.
- Emerging legislative analysis and public policy issues such as distributed generation and CHP, bioenergy, methane controls, hydraulic fracturing, long term energy and environmental planning, pipeline safety, dig alert, development and management of the AB32 Investment Fund and use of natural gas as a transportation fuel.
- Air agency liaison and customer support involving new and more complex air quality regulations that continue to be developed and introduced.
- External expert support and non-labor expense as a result of the complexity, ambitious scope and sheer number of plans, policies, and proceedings that affect natural gas customers. These plans, policies and proceedings require external support in order to contribute information that will advance the thinking and broaden the perspective of local, state and federal policymakers as they consider how to meet California's ambitious environmental goals and craft new proposed federal climate change-related regulations and policies.

Natural Gas Vehicle Program (NGV)

Testimony on pages JGR-29 through JGR-32 describes continued high levels of growth with respect to the number of existing natural gas vehicle tariff (G-NGV) customers, associated volumes and customer requests for service and information. This testimony also describes new state and regional policies that require continued and elevated customer outreach (Public Utilities Code 740.3, Petroleum Dependency – AB 1007, AB 32/LCFS, CAA/CARB/Air Pollution Agencies) to help meet local and state policy objectives. Lastly the testimony documents new and emerging natural gas vehicle applications, such as off-road transportation (maritime, rail) and commuter home refueling, will require additional resources to adequately perform customer outreach and assistance. Collectively, these mandates are above and beyond the requirements articulated and approved in previous

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funding requests and demonstrate why current funding levels are insufficient to meet TY 2016 projects and activities.

Biofuels and Low-Carbon Energy Resources Market Development

The Biofuels and Low-Carbon Energy Resources Market Development Program current funding levels are insufficient to meet proposed TY 2016 projects and activities. The passage of AB1900 has provided the standards for biomethane pipeline injection and, with the inclusion of landfill gas, has raised the amount of eligible resources by 80%. Furthermore, the value of biomethane has increased due to the development of Low Carbon Fuel Standard credit markets (LCFS) and Renewable Fuel Standard Renewable Identification Number (RIN) credit markets. The increase in these market drivers is the basis for our forecast of increased activity.

More specifically, testimony on page JGR-34 provides evidence that additional Biofuels and Low-Carbon Energy Resources Market Development program activities and resources are required to support new statewide bioenergy goals. This testimony cites the California Energy Commission's (CEC) 2012 Bioenergy Action Plan's findings that: (1) progress toward the state's goals has been slow, (2) the bioenergy market is underdeveloped (3) despite its many benefits, bioenergy production uses only 15 percent of California's available biomass waste, and (4) bioenergy production is decreasing.

As further evidence of the need for increased that additional Biofuels and Low-Carbon Energy Resources Market Development program activity and resources, the testimony on page JGR-34 cites the 2012 Bioenergy Action Plan's goal of increasing environmentally and economically sustainable energy production from organic waste by carrying out four specific actions:

- Increasing research and development of diverse bioenergy technologies and applications, as well as their costs, benefits, and impacts;
- Continuing the development of information about the availability of organic wastes and opportunities for bioenergy development;
- Pursuing efforts to assess and monetize the economic, energy, safety, environmental, and other benefits of biomass; and
- Facilitating access to transmission pipelines, and other bioenergy distribution networks.

Each of these actions is embodied in the proposed funding and activities of SoCalGas' Biofuels and Low-Carbon Energy Resources Market Development program.

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Response to Question 7 (Continued)

Business Strategy and Development

Testimony on page JGR-38 states that additional funding and resources are needed for this area because the group has taken on new activities to support company-wide improvement initiatives. The testimony states that the need for increased funds and resources consisting of a manager and analyst added to the group in 2014 are necessary to support new company-wide collaboration software tools and to assist in implementation of improvement initiatives. These state of the art collaboration tools are essential for development, implementation and management of improvement initiatives.

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8. SCG forecasts 15.1 FTEs for its Non-Shared activities for TY 2016 over its 2013 FTEs of 10.7. The five year average of FTEs based on Table JGR-3 on page JGR-5 is 12.28. Provide documentation that explains in detail and demonstrates why SCG's current staffing level are insufficient to perform the work activities proposed for TY 2016 and include all supporting documentation.

SoCalGas Response:

The need for incremental RD&D FTEs has two main drivers listed on page JGR-5 of Exhibit SCG-13:

- Enhancing system safety and reliability and;
- Cost effectively meeting increasingly stringent environmental requirements (including dramatic reductions in greenhouse gas and criteria pollutant emissions).

The forecasted staff additions in the RD&D program are necessary due to increased activity described on pages JGR-10 through JGR-13 and listed in response to Question 7 above.

As stated on page JGR-5 of testimony, the incremental RD&D program FTE's shown in Table JGR-3 are comprised of 1.5 FTEs in the operations area to focus on gas quality analysis and testing for various new renewable natural gas and hydrogen resources and increased participation in industry and research collaborative committee meetings and events. The remaining incremental 2.9 FTEs consists of one staff member added in early 2014 to focus on renewable natural gas and low carbon resources, one staff member addition to focus on low-emission transportation solutions and 0.9 FTEs related to full-year staffing of a vacancy resulting from a 2013 retirement and additional part-time hours charged to the program for commercial support (budgets, contracts and transactions). All of these incremental FTEs are required for RD&D efforts aimed at meeting the new GHG and criteria pollutant emissions mandates documented on pages JGR-10 through JGR-13 in testimony and listed in response to Question 7 above.

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9. On page JGR-16 in Table JGR-7 and on pages JGR-16 to JGR-19, SCG shows lump sum figures and provides a brief discussion for its non-labor forecast of \$11.140 million (\$33.420 million over three years) which is proposed to increase by \$4.194 million or 60.38% over 2013 recorded adjusted expenses of \$6.946 million. SCG’s testimony and workpapers are insufficient and incomplete. Provide all supporting documentation which clearly identifies proposed activities and the basis for each number used in the calculation of the forecasted expenses (i.e., the documentation that demonstrates the individual breakdown of all costs included in each estimate along with source documentation/basis for numbers; where/how did SCG calculate the non-labor figures).

SoCalGas Response:

The RD&D cost forecast was developed using a zero-based cost forecast approach. The RD&D activities supported by this forecast are described in Exhibit SCG-13, Appendix B, Technology Needs Assessment Summary (see attachment included in response to Question 7 above; “ORA-SCG-043-TLG-Q7 Attachment.pdf”). Specifically, the column labeled “SoCalGas RD&D Activities” describes the activities that will be undertaken with corresponding program area cost forecast in Table JGR-7 of testimony. For example the \$850,000 Residential RD&D cost forecast in Table JGR-7 on page JGR-16 will be used for three types of residential end-use RD&D projects described in the first row of Appendix B:

- Single family home and multifamily home demonstrations that incorporate solar thermal, fuel cell (or other microCHP) with condensing appliances.
- Smart Home demonstration projects that integrate smart appliances, home energy management, onsite vehicles refueling, smart meters with two way communication with energy utilities, and remote controls of appliances.
- Continued support and demonstration of residential solar thermal products and higher efficiency gas-fired condensing products.

The forecast expense per project area is based on historical experience with analogous projects and co-funding levels. Specific projects are selected and funded during the program cycle based on competitive solicitations of co-funding entities and on evaluation of proposed projects against program goals. Establishment of program budget against RD&D priorities is the same approach used by other entities such as the California Energy Commission.

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10. For SCG’s Customer Service Technologies, Policies and Solutions for 2009-2013 provide, in a spreadsheet similar to the one shown in workpapers on page 65, a detailed and itemized listing of all labor and non-labor expenses (note: do not lump expenses together in the response, separate and identify the expenses by the categories as requested below) incurred for 1) lobbying activities (“efforts to educate policymakers and assist in the development of reasoned legislation, environmental policy and regulation...”; see pg. JGR-20) , 2) employee meals, 3) employee luncheons, 4) vendor payments for offsite meetings and events (provide copies of contracts for costs and services provided), 5) all entertainment expenses, 6) employee recognition activities, 7) sporting events, 8) bonuses/awards, 9) employee/company memberships and dues, 10) all contributions, 11) charitable events, 12) brand awareness and loyalty surveys/campaigns/events, and 13) other employee reimbursable expenses.

SoCalGas Response:

The expenses shown in the attachment “ORA-SCG-DR-043-TLG-Q10” reflect the dollars spent in 2009-2013 as charged by the operating areas. The data shows that there is variation in categories used, which is dependent upon the people responsible for assigning costs. All recorded costs are included in the attachment. Not all categories requested by ORA are specifically or separately identifiable. For example, brand awareness and loyalty surveys/campaigns/events are not separately identified from other advertising or event expenses.

Please note that lobbying activities are not included in recorded or requested GRC dollars. Lobbying activities are out of the scope of the GRC and are not ratepayer funded.

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11. For SCG’s Customer Service Technologies, Policies and Solutions, provide, in a spreadsheet similar to the one shown in workpapers on page 65, a detailed and itemized listing of all costs incurred for one-time, unusual, or non-recurring costs for the years 2009 through 2013, including but not limited to studies, equipment demonstrations and testing, special projects and programs, surveys, training, contract expenses, product/project development, testing and/or implementation, etc.

SoCalGas Response

The groups within CSTP&S undertake a series of projects to support the function of the group. Examples are studies or analyses contracted to outside parties in the various functional areas and RD&D projects. These activities are part of the normal course of business and projects are not duplicated from one period to the next. See the attachment included in response to Question 10 above (“ORA-SCG-DR-043-TLG-Q10 Attachment.xlsx”) for a detailed listing of the types of costs included in the 2009 through 2013 adjusted recorded expenses.

Please see the following table for cost exclusions that were made to CSTP&S historical expenses.

Customer Service Technologies, Policies and Solutions Historical Cost Exclusions					Nominal (\$000)				
Workpaper	Workpaper Description	Cost Type	Workpaper Page	Cost Adjustment	2009	2010	2011	2012	2013
2200-0234	NGV Program	Labor	38-39	Pursuant to CPUC decision 12-12-037 Compression Service Tariff activities are excluded from base rates.		(\$0.247)	(\$3)	(\$0.049)	
2200-0234	NGV Program	Non-Labor	39	To exclude costs associated with the NGV employee incentive program.				(\$63)	(\$12)
2200-2229	Business Strategy & Development	Non-Labor	58-59	Pursuant to CPUC decision 12-12-037 Compression Service Tariff activities are excluded from base rates.				(\$0.374)	(\$37)
2200-2286	Bio-Fuels & Low-Carbon Resources Market Development	Labor	48	Costs related to a one-time project regulatory filing excluded from historical cost base for this function.		(\$18)	(\$10)		
2200-2286	Bio-Fuels & Low-Carbon Resources Market Development	Non-Labor	48-49	Costs related to a one-time project regulatory filing excluded from historical cost base for this function.			(\$469)	(\$9)	

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12. SCG's Policy and Environmental Solutions Work Group forecasts \$4.005 million (\$12.015 million over three years) in TY 2016. This is an increase of \$1.661 million or 70.86% over 2013 recorded adjusted expenses of \$2.344 million. SCG formed this group in 2013. The five year average (2009-2013) is \$1.643 million and the three year average (2011-2013) is \$2.256 million.
- a. Provide all documentation that SCG's management utilized and relied upon to determine that its Policy and Environmental Solutions Work Group is required considering that its Regulatory Affairs group and its State Government Affairs group performed similar or "complementary" activities.
 - b. SCG formed its Policy and Environmental Solutions Work Group in 2013 (see JGR-20). Provide documentation that explains in detail how the activities which have now been reorganized into the Policy and Environmental Solutions Work Group were performed (i.e., performing "state and federal agency policy analysis, engagement, outreach, and customer support related to existing and proposed state and federal policies, laws and regulations concerning natural gas utilization)." In the response include the count of FTEs that performed the work, associated accounts/recorded costs, prior to the reorganization in 2013.
 - c. Prior to the creation of Policy and Environmental Solutions Work Group in 2013, provide documentation that explains which Work Group/Cost Center performed activities associated with "efforts to educate policymakers and assist in the development of reasoned legislation, environmental policy and regulation (such as criteria air pollution and greenhouse gas regulation), and energy policy and regulation (such as the CEC's IEPR)." In the response provide the recorded costs (2009-2013) for this activity.
 - d. SCG forecasts 17 FTEs for its Policy and Environmental Solutions Work Group (see Tables JGR-9 and JGR-10 on pages JGR-20 and JGR-22) for its Shared Services activities for the TY 2016 over its 2013 FTEs of 7.8. SCG states that three additional FTEs were added in 2013 when the group was reorganized. Provide documentation that explains in detail and demonstrates the number of FTEs that are currently assigned duties associated with each of the following activities in its Policy and Environmental Solutions Work Group: support environmental and energy policy and regulation; support legislative and public policy activities; provide administrative support.
 - e. SCG states on page JGR-21 that "The staffing increases reflected in the forecast are necessary to respond to a substantial increase in energy and environmental legislative, policy and regulatory activities, as well as an increase in customer need for compliance assistance." Provide documentation that identifies the accounts, recorded costs (2009-2014), and activities for the "substantial increase in energy and environmental legislative, policy and regulatory activities, as well as an increase in customer need for compliance assistance" in order to substantiate the assertions mentioned in this question.

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Question 12 (Continued)

- f. Provide documentation that explains in detail and demonstrates why SCG’s current staffing level in its Policy and Environmental Solutions Work Group are insufficient to perform the work activities proposed for TY 2016 (include all supporting documentation in the response).
- g. On page JGR-22 in Table JGR-10 and on page JGR-27, SCG shows lump sum figures and provides a brief discussion for its non-labor forecast of \$2.066 million (\$6.198 million over three years) which is proposed to increase by \$0.658 million or 46.73% over 2013 recorded adjusted expenses of \$1.408 million. SCG’s testimony and workpapers are insufficient and incomplete. Provide all supporting documentation which clearly identifies proposed activities and the basis for each number used in the calculation of the forecasted expenses (i.e., the documentation that demonstrates the individual breakdown of all costs included in each estimate along with source documentation/basis for numbers; where/how did SCG calculate the non-labor figures found on page JGR-27).
- h. Provide documentation that clearly shows a detailed breakdown of all activities and associated non-labor costs incurred for 2013 for SCG’s Policy and Environmental Solutions Work Group.

SoCalGas Response:

- a. *[Provide all documentation that SCG’s management utilized and relied upon to determine that its Policy and Environmental Solutions Work Group is required considering that its Regulatory Affairs group and its State Government Affairs group performed similar or “complementary” activities.]*

SoCalGas determined that the Policy and Environmental Solutions Work Group was necessary to address state and local policy initiatives that were increasingly focused on electrification of all energy end uses to meet greenhouse gas reduction goals (AB32) and ozone standards (Federal Clean Air Act); without fully assessing the potential to meet these goals in a timelier and cost-effective manner using natural gas and related technologies.

The Policy and Environmental Solutions Work Group was established to provide an enhanced capability to analyze natural gas policy solutions and engage with regulators and policy leaders to provide solutions that would protect customers and help meet state and federal climate change and air quality goals cost effectively. The group was tasked with educating policymakers on the opportunities available with natural gas, renewable natural gas, and the full range of natural gas solutions capable of supporting state and federal goals.

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Response to Question 12a (Continued)

These resources and capabilities did not exist in the Regulatory Affairs or State Government Affairs groups and they do not overlap or duplicate the functions of those work groups although staff members may be consulted on specific matters from time to time. Previously, legislative issues were addressed by San Diego Gas & Electric (SDG&E), but there was limited expertise on unique natural gas related issues. As such, SoCalGas created a new group comprised of existing SoCalGas Environmental Affairs personnel that focused on air quality issues at local air districts, and hired additional staff with expertise on analyzing policy and engaging policymakers on state and federal environmental and energy policy issues. Therefore, P&ES is the group responsible for addressing unique, California-specific natural gas issues (a group that did not previously exist elsewhere at SoCalGas or SDG&E).

- b. [SCG formed its Policy and Environmental Solutions Work Group in 2013 (see JGR-20). Provide documentation that explains in detail how the activities which have now been reorganized into the Policy and Environmental Solutions Work Group were performed (i.e., performing “state and federal agency policy analysis, engagement, outreach, and customer support related to existing and proposed state and federal policies, laws and regulations concerning natural gas utilization).” In the response include the count of FTEs that performed the work, associated accounts/recorded costs, prior to the reorganization in 2013.]

Prior to formation of the P&ES group in 2013, the work on state and federal agency policy analysis, engagement, outreach, and customer support related to existing and proposed state and federal policies, laws, and regulations concerning natural gas utilization was performed by the Environmental Affairs Group, a part-time legislative analyst, and various staff members in regulatory affairs and other departments that devoted part of their time to addressing policy matters as they were identified. With the growing array of policy matters related to natural gas, this approach was deemed to be inadequate to provide the level of analysis and engagement needed.

The primary drivers for the increase in policy matters related to natural gas are the advent and implementation of AB32 and new and evolving Federal Clean Air Act standards and requirements. Due to these drivers, SoCalGas determined there was a need for a group to represent the interests of natural gas customers as the state developed plans to meet air quality requirements and long term greenhouse gas reduction goals.

The costs of FTEs working on local air quality issues are included in the testimony (see page JGR-20, Table JGR-9) and copied below. Also below is a table showing functions described above, previous location, and FTE count. The hours and costs of various staff members previously supporting work on policy matters on an occasional or ad hoc basis was not separately tracked and is, therefore, not available.

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Response to Question 12b (Continued)

TABLE JGR-9

Policy & Environmental Solutions

In Thousands of 2013 Dollars – Incurred Costs

Year	Adjusted-Recorded					Forecast			Change
	2009	2010	2011	2012	2013	2014	2015	2016	2013-2016
Labor	381	431	678	894	937	1,517	1,861	1,940	1,003
Non-labor	46	589	1,628	1,221	1,408	1,486	1,836	2,066	658
Total	427	1,020	2,307	2,115	2,345	3,002	3,696	4,005	1,661
FTEs	3.3	3.8	5.7	7.6	7.8	13.2	16.5	17.3	9.5

Note: Totals may include rounding differences

Function	Pre-2013 Location	FTE
Director, Environmental Affairs	Environmental Affairs, SoCalGas	1
Local Air District Policy and Support and Customer Support	Environmental Affairs, SoCalGas	6.6
Legislative Support	Legislative Affairs, SDG&E	0.5
	Total	8.1

- c. *[Prior to the creation of Policy and Environmental Solutions Work Group in 2013, provide documentation that explains which Work Group/Cost Center performed activities associated with “efforts to educate policymakers and assist in the development of reasoned legislation, environmental policy and regulation (such as criteria air pollution and greenhouse gas regulation), and energy policy and regulation (such as the CEC’s IEPR).” In the response provide the recorded costs (2009-2013) for this activity.]*

Please see response to Question 12b above.

- d. *[SCG forecasts 17 FTEs for its Policy and Environmental Solutions Work Group (see Tables JGR-9 and JGR-10 on pages JGR-20 and JGR-22) for its Shared Services activities for the TY 2016 over its 2013 FTEs of 7.8. SCG states that three additional FTEs were added in 2013 when the group was reorganized. Provide documentation that explains in detail and demonstrates the number of FTEs that are currently assigned duties associated with each of the following activities in its Policy and Environmental*

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Solutions Work Group: support environmental and energy policy and regulation; support legislative and public policy activities; provide administrative support.]

The number of FTEs that are currently (2014) assigned duties associated with the activities requested are:

- Support environmental and energy policy and regulation: 5 FTEs
- Support legislative and public policy activities: 2 FTEs
- Administrative support: 0 FTE

- e. *[SCG states on page JGR-21 that “The staffing increases reflected in the forecast are necessary to respond to a substantial increase in energy and environmental legislative, policy and regulatory activities, as well as an increase in customer need for compliance assistance.” Provide documentation that identifies the accounts, recorded costs (2009-2014), and activities for the “substantial increase in energy and environmental legislative, policy and regulatory activities, as well as an increase in customer need for compliance assistance” in order to substantiate the assertions mentioned in this question.]*

A significant increase in the number and scope of federal, state and local environmental and energy policy initiatives are the primary drivers behind the staffing increase request. For example, at the federal level, the Environmental Protection Agency (EPA) has proposed to revise the national ambient air quality standards for ozone, to regulate greenhouse gas emissions (GHG) from new and existing power plants, and to regulate methane emissions from the natural gas supply chain. The state of California has established ambitious goals to reduce greenhouse gas emissions to 1990 levels by 2020 and to 80% below 1990 levels by 2050. In order to accomplish these goals the Air Resources Board (ARB), the California Energy Commission (CEC) and the California Public Utilities Commission (CPUC) are in the process of developing plans and regulations, all of which will impact natural gas customers. At the local level, the two extreme ozone non-attainment air districts in SoCalGas’ service territory are in the process of developing Air Quality Management Plans (AQMP). Meeting the current ozone standards will require approximately an 80% reduction beyond current levels in emissions of oxides of nitrogen (NOx), which is a precursor to ozone. Since the transportation sector is responsible for 80-90% of the NOx emissions in California and the local air districts regulate only stationary sources, the 2016 AQMPs will have a greater impact on SoCalGas’ customers than previous AQMPs. As such, SoCalGas needs additional resources to engage in an active, informed manner in the development of the plans (2015) and assist customers with implementation (2016).

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In summary, SoCalGas requires additional staff to engage in the federal, state and local environmental and energy policy initiatives discussed above on behalf of natural gas customers. A list of plans and proceedings resulting from the broader initiatives with links to the relevant documents is provided below. While some of these initiatives have been in place for several years, most have been updated since 2012 as it has become apparent that state and federal environmental policy goals cannot be achieved without redoubled efforts.

Federal:

- Proposed Revisions to national Ambient Air Quality Standards for Ozone, issued: 2014 <http://www.epa.gov/airquality/ozonepollution/pdfs/2014decwebinar.pdf>
- Climate Action Plan, issued: 2013
<http://www.whitehouse.gov/share/climate-action-plan>
- Regulating carbon from existing power plants under section 111(d) of the clean air act, issued: 2014
<https://www.federalregister.gov/articles/2014/11/13/2014-26900/carbon-pollution-emission-guidelines-for-existing-stationary-sources-electric-utility-generating>
- Federal Methane Regulations, issued 2014
<http://www.epa.gov/airquality/oilandgas/whitepapers.html>

State:

- California's 2030 Climate Commitment, Fourth Assessment currently underway
<http://www.arb.ca.gov/html/2030climatecommitment.htm>
- Vision for Clean Air: A Framework for Air Quality and Climate Planning, issued 2012
<http://www.arb.ca.gov/planning/vision/vision.htm>
- First Update to the AB32 Scoping Plan, issued: 2013
<http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>
- SB 605 (Lara, Chapter 523, Statutes of 2014), implementation: Ongoing
http://leginfo.ca.gov/pub/13-14/bill/sen/sb_0601-0650/sb_605_bill_20140921_chaptered.htm
- Low-Carbon Fuel Standard Reauthorization, implementation: 2012 - 2015
<http://www.arb.ca.gov/fuels/lcfs/2a2b/2a-2b-apps.htm>
- Sustainable Freight Transport Initiative, issued 2013, and related programs:
<http://www.arb.ca.gov/gmp/sfti/sfti.htm>
- Renewable Natural Gas Standard: expected legislation in 2015 based on
<http://www.bioenergyca.org/wp-content/uploads/2014/11/BAC-Report-on-Renewable-Gas-Standard.pdf>
- Natural Gas Act (AB1257) Report, work in process:
http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB1257

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- Integrated Energy Policy Report 2013 (IEPR): The CEC's 2013 IEPR established a definition for ZNE buildings in anticipation of ZNE requirements for new construction starting in 2020. The treatment of natural gas technologies in these regulations will have significant impact on natural gas ratepayers.
http://www.energy.ca.gov/2011_energypolicy/documents/2011-07-20_workshop/presentations/Revised_Zero_Net_Energy_Definition.pdf

Local:

Air Quality Management Plan (AQMP) Development and Implementation:
<http://www.aqmd.gov/home/about/groups-committees/aqmp-advisory-group>

Local air districts must develop periodic AQMP identifying rules and strategies to meet the NAAQS established by the Federal Environmental Protection Agency (EPA). Two of the local air districts, SCAQMD and SJVAPCD, are currently not in attainment for PM and ozone. By 2016, both districts must submit plans to meet current ozone standards. The districts have already begun the public process to evaluate potential rules and strategies to meet the standard. P&ES staff is needed to work with the district to develop cost effective means to meet NAAQS. Activity levels will continue to increase as the districts get closer to their 2016 deadlines and through the implementation period. Finally, as discussed in testimony, new and more complex air quality regulations continue to be developed and introduced. SoCalGas staff works with local air regulatory entities to contribute expertise, address operational impacts on SoCalGas, and find the most cost effective way to achieve air quality requirements. Additionally, SoCalGas provides education and support to large non-residential customers who must comply with increasingly complex air quality rules and regulations (p. 26)

- f. [Provide documentation that explains in detail and demonstrates why SCG's current staffing level in its Policy and Environmental Solutions Work Group are insufficient to perform the work activities proposed for TY 2016 (include all supporting documentation in the response).]*

Please see response to Question 12e above.

Staffing levels in 2013 were not sufficient to support the activity levels for P&ES. Staffing levels in 2014 have increased due to the increased workload driven by policy initiatives described above. 5.4 additional staff were added in 2014 to accommodate the increased workload. These staff were: Environmental Policy Manager, Senior Environmental Policy Advisor, Energy Policy Manager, Energy Policy Advisor, Environmental Program Manager, and a staff member who was previously shared 60%/40% with another department was made 100% P&ES.

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- g. *[On page JGR-22 in Table JGR-10 and on page JGR-27, SCG shows lump sum figures and provides a brief discussion for its non-labor forecast of \$2.066 million (\$6.198 million over three years) which is proposed to increase by \$0.658 million or 46.73% over 2013 recorded adjusted expenses of \$1.408 million. SCG’s testimony and workpapers are insufficient and incomplete. Provide all supporting documentation which clearly identifies proposed activities and the basis for each number used in the calculation of the forecasted expenses (i.e., the documentation that demonstrates the individual breakdown of all costs included in each estimate along with source documentation/basis for numbers; where/how did SCG calculate the non-labor figures found on page JGR-27)].*

The following table provides a breakdown and the basis for the TY 2016 P&ES non-labor forecast.

P&ES Non-labor Forecast		
Activities	2016	Explanation
Employee Costs	135,000	Additional travel with expanded responsibilities in Sacramento (ARB, CEC, Leg) plus travel & expense for new FTE
Conference & Event Sponsorship	230,000	On-going sponsorship of energy & environmental conferences and events
Communication & Educational Outreach	200,000	On-going educational webinars & communications plus Environmental Dialogue and Opinion Leader research
Membership	85,000	RegFlex, CCEEB, other
Engineering Support	168,000	Additional customer support for 2016 AQMP Rule development
Update of Existing Studies	323,000	Update of transportation pathways work & SJV emissions study, update of 2050 study/evaluation of 2030 GHG target
New Studies	925,000	Technology Development Pathway to 2050, evaluation of new EPA standard, studies on methane emissions, indoor air quality, natural gas in the ZNE home (several are likely to be multi-year studies)
Total	2,066,000	

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- h. [Provide documentation that clearly shows a detailed breakdown of all activities and associated non-labor costs incurred for 2013 for SCG's Policy and Environmental Solutions Work Group].*

Please see the attachment included in response to Question 10 above (“ORA-SCG-DR-043-TLG-Q10.xlsx”) for a detailed breakdown of P&ES non-labor costs incurred in 2013.

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13. SCG's Natural Gas Vehicle Program forecasts \$2.271 million (\$6.813 million over three years) in TY 2016. This is an increase of \$0.839 million or 58.59% over 2013 recorded adjusted expenses of \$1.432 million. The five year average (2009-2013) is \$1.541 million. SCG's expenses were relatively stable between 2009 and 2011, and then increased by \$0.429 million in 2012. SCG's expenses decreased by \$0.464 million between 2012 and 2013 back down to the recorded expense levels of 2009-2011
- a. Provide documentation that explains in detail and demonstrates the amount of funding SCG requested and was authorized in its 2012 GRC (D.13-05-010) for its Natural Gas Vehicle Program.
 - b. Referring to pages JGR-29 to JGR-31, SCG forecasts \$1.111 million in labor expenses in TY 2016, this is an increase of \$0.493 million or 79.77% over 2013 recorded adjusted expenses. SCG's forecast includes incremental funding for five additional FTEs. SCG's FTEs and associated labor expenses have declined between 2010 and 2013. Provide documentation that explains if during 2009-2013 SCG added "new G-NGV customers", received customer inquiries, including inquires related to new programs and regulations, performed customer services for "existing G-NGV customers", performed "outbound customer contacts and meetings to promote adoption", and performed activities associated with various customer events.
 - c. On page JGR-29 in Table JGR-11, SCG shows a lump sum figure of \$1.161 million for its non-labor forecast but does not provide any discussion for its proposed non-labor activities which is proposed to increase cost by \$0.346 million or 42.45% over 2013 recorded adjusted expenses of \$0.815 million. The five year average from 2009 through 2013 is \$0.890 million. SCG's testimony and workpapers are insufficient and incomplete. Provide all supporting documentation which clearly identifies proposed activities and the basis for each number used in the calculation of the forecast expenses (i.e., the documentation that demonstrates the individual breakdown of all costs included in each estimate along with source documentation/basis for numbers; where/how did SCG calculate the non-labor figures).

SoCalGas Response:

- a. In the 2012 GRC (D.13-05-010), the NGV Program requested incremental funding of \$860,000 and was authorized \$230,000 (2009 dollars) in incremental funding (pages 640 – 641).
- b. During 2009-2013, SoCalGas and SDG&E added 94 G-NGV meters, an increase of 29.6%. The G-NGV tariff requires a separate meter for each compressed natural gas vehicle refueling station, so the increase in meter account directly correlates to an increase in compressed natural gas (CNG) vehicle refueling stations for both existing and new customers in the combined service territories.

**ORA DATA REQUEST
ORA-SCG-DR-043-TLG
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: JANUARY 21, 2015
DATE RESPONDED: FEBRUARY 5, 2015**

Response to Question 13b (Continued)

Preliminary site evaluation forms are submitted by customers interested in potentially constructing CNG vehicle refueling stations. During 2009-2013, SoCalGas and SDG&E saw annual Preliminary Site Evaluation (PSE) submittals increase from 9 in 2009 to 79 in 2013. Although SoCalGas did not track all individual customer contacts and inquiries; collectively, the growth in these two metrics demonstrate the significant market growth, customer interest, and associated utility outreach activities occurring during this period.

- c. As stated in Exhibit SCG-13 page JGR-32, “Incremental non-labor costs include \$346,000 account management and customer outreach program costs for off-road applications, commuter/home refueling applications, Low-Carbon Fuel Standard (LCFS) program, customer safety training courses, and employee expenses related to incremental FTEs.” An explanation of the individual costs is detailed in Workpaper Exhibit SCG-13-WP (pages 35 to 36; see attached file “ORA-SCG-DR-043-TLG-Q13c Attachment.pdf”). Employee expenses are based on historical costs and LCFS program costs are based on quotations from contractors. Other non-labor costs associated with customer safety training courses and account management and customer outreach program costs for new and emerging markets (off-road applications, commuter/home refueling applications) were estimated.

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14. SCG’s Biofuels and Low-Carbon Energy Resources Market Development Program forecasts \$665,000 (\$1.995 million over three years) in TY 2016. This is an increase of \$439,000 or 194.25% over 2013 recorded adjusted expenses of \$226,000. The five year average (2009-2013) is \$460,200. SCG’s expenses declined each year between 2010 and 2013. SCG states on page JGR-35 that “The dip in activity in 2012 and 2013 relates to staff turnover in concert with diminished levels of project development activity caused by uncertainty regarding gas quality standards....”
- a. Provide documentation that explains in detail and demonstrates the amount of funding SCG requested and was authorized in its 2012 GRC (D.13-05-010) for its Biofuels and Low-Carbon Energy Resources Market Development Program.
 - b. Provide documentation that explains the decline in recorded expenses between 2010 and 2012 in more detail.
 - c. SCG utilized a zero-based method to forecast expenses for its Biofuels and Low-Carbon Energy Resources Market Development Program which calculated a forecast increase of 194.25% over 2013 recorded expenses. Provide documentation that explains in detail why utilizing a five year average method with a TY forecast of \$460,000 is insufficient considering the decline in recorded expenses each year between 2010 and 2013 and the “diminished levels of project development activity caused by uncertainty regarding gas quality standards.”

SoCalGas Response:

- a. Documentation for the 2012 Biofuel Market Development Program requested funding can be found in 2012 GRC application¹ and workpapers² attached as “ORA-SCG-DR-043-TLG-Q14a.”
- b. In 2010 and 2011 the Biofuels and Low-Carbon Energy Resources Market Development Program’s expenses were close to those planned for the forecast period. The decline in 2012 was caused by the suspension of directed biogas as a qualified renewable energy resource³, uncertainty regarding gas quality standards due to be developed pursuant to AB1900, uncertainty of the LCFS because of a lawsuit stating the LCFS violates the Commerce Clause of the US Constitution, and staff turnover⁴.

¹ A.10-12-006, Exhibit No: (SCG-09) pages 80-82

² A.10-12-006, Exhibit No: (SCG-09-WP) pages 350-358

³ Notice to Consider Suspension of the RPS Eligibility Guidelines Related to Biomethane Under the RPS Proceeding, Docket 11-RPS-01 and Docket 02-REN-031, Available at:
http://www.energy.ca.gov/portfolio/notices/2012-03-28_biomethane_notice/2012-03-28_Biomethane_Suspension_Notice.pdf.

⁴ A.14-11-004, page 35

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Response to Question 14 (Continued)

- c. Utilizing the five year average method to determine the funding level for the Biofuels and Low-Carbon Energy Resources Market Development Program is inappropriate because it does not take into account new developments which have caused an increase in the program's planned activities.

Rulemaking 13-02-008 sets quantifiable standards for biomethane injection into the utility pipeline system. Pipeline injection allows biomethane to be nominally purchased and consumed by any entity with gas utility service. D.14-01-034 made landfill gas eligible for injection into the pipeline. Landfill gas represents the largest single source of biogas in the state and its eligibility increases the amount of available biogas resource levels by about 80%.⁵

The value of biomethane has increased due to state and federal incentive programs. On July 18, 2014, the U.S. Environmental Protection Agency (EPA) expanded the definition of cellulosic biofuel to include CNG and LNG liquefied natural gas (LNG) produced from biogas.⁶ This ruling makes biomethane sourced CNG and LNG eligible for the most valuable classification of RIN credits: D3 RINs. The State's LCFS program, having received a stay of injunction from the 9th circuit court on April 23, 2012⁷, has seen credit values rise from \$16/credit in mid-2012 to \$26/credit in late 2014.⁸

These recent developments represent an increase to the liquidity, volume, and economic value of biofuels. Utilizing a 5 year average to project funding does not take this new landscape into account. To support the planned level of activity, 3.5 FTEs will be needed. This forecast is based on a return to activity levels of 2010 and 2011 (~2.75 FTEs) as a result of the CEC lifting its suspension of biomethane as an RPS eligible resource and Commission's development of biomethane quality specifications in Rulemaking 13-02-008. An additional 0.75 FTE (over ~2.75 FTEs in 2010 and 2011) is requested to support increased activity levels related to landfill gas development and renewable CNG vehicle fuel activities.⁹

⁵ A.14-11-004, page 36

⁶ <http://www.gpo.gov/fdsys/pkg/FR-2014-07-18/pdf/2014-16413.pdf>

⁷ http://www.arb.ca.gov/fuels/lcfs/LCFS_Stay_Granted.pdf

⁸ http://www.arb.ca.gov/fuels/lcfs/credit/20150113_deccreditreport.pdf

⁹ A.14-11-004, page 35-36