

**Application of Southern California Gas Company
(U-904-G) for Approval of Natural Gas Energy
Efficiency Programs and Budgets for Years
2009 through 2011**

**Application No. 08-07-022
Exhibit No.: _____**

Chapter I

Supplemental Testimony

of

Mark Gaines

Southern California Gas Company

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

July 2, 2009



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**SECTION 1.
EXECUTIVE SUMMARY**

3 **I. Purpose**

4 The purpose of this testimony is to present Southern California Gas Company's
5 ("SoCalGas") proposed 2009-2011 Energy Efficiency ("EE") Program Portfolio ("Portfolio")
6 and provide the technical basis and explanation to support the cost effective energy savings and
7 demand reduction estimates that are presented in the Portfolio.

8 The testimony will show that the Portfolio, which was developed following the strict
9 policy guidance adopted by the California Public Utilities Commission ("CPUC" or
10 "Commission") in Decision ("D"). 09-05-037, is designed to meet the cumulative 3 year goal of
11 91,731,272 therms using cumulative savings from 2006 adjusted for the results of the 2006-2007
12 Verification Report and the savings assumptions from DEER 2008. Achieving these aggressive
13 goals requires SoCalGas to abandon statewide consistency on incentives and increase them to
14 near full incremental costs to significantly increase participation in its EE programs. The
15 combination of aggressive goals, reduced DEER savings assumptions and near full incremental
16 cost incentives results in a 3 year program budget of \$494,556,932 million.

17 Given the volume and complexity of this application, we want to specifically call out four
18 critical, but easily overlooked issues on which SoCalGas is requesting policy direction from the
19 Commission. These issues are:

- 20
- 21 • On-Bill-Financing Loan Pool: Witness Besa, Chapter 2, Section I, IX. F.
 - 22 ○ SoCalGas proposes to establish the On-Bill Financing Balancing Account
23 to provide a stable, long-term source of funding for this valuable program
 - 24 • Green Energy Systems Program: Witness Besa, Chapter II, Section 1, IX, H, 4
 - SoCalGas requests authority to enter contractual negotiations with

1 commercial building owners for SoCalGas to own and operate a high
2 efficiency HVAC central plant on their property

3 ○ SDG&E would file advice letters seeking approval for each project

- 4 • Waste Heat Recovery and Steam Backpressure Turbines: Witness Besa, Chapter II,
5 Section X. B. 2.

6 ○ SoCalGas requests authority to include these measures in our portfolio to
7 capture integrated EE opportunities currently not eligible for participation

- 8 • Encumbering Funds for Long-Term Projects: Witness Gaines, Chapter I, Section 3,
9 III, C

10 ○ SoCalGas requests authority to encumber incentive funds for up to 5 years
11 to provide financial certainty for long-term customer projects

12 **II. SoCalGas' Commitment to Energy Efficiency Goals**

13 Over the last 15-years, SoCalGas has successfully proven its commitment to Energy
14 Efficiency by helping customers save over 230 million therms, (equal to the amount of natural
15 gas required to serve over 460,000 homes for one year).

16 SoCalGas' energy vision is clear and consistent with the plans and policies of the State of
17 California. The number 1 energy resource is '*Energy Efficiency*'. We are committed to this,
18 and to supporting our customers' ongoing challenge of managing their energy costs through
19 energy efficiency and energy conservation. Energy Efficiency has, and will continue to be the
20 most important part of SoCalGas' integrated and balanced energy resource plan.

21 We are all facing a very challenging energy future. However, the programs contained in
22 this testimony were developed to help solve some of these challenges. We know we will need to
23 get closer to our customers to succeed. We know we will need to develop more partnerships,

1 and we will need to continue our integration efforts with our Low Income Energy Efficiency
2 (“LIEE”) programs. We know we will need to continually learn from our experience and
3 continually innovate our programs. SoCalGas’ 2009-2011 Energy Efficiency Portfolio offers all
4 of these actions.

5 **III. Design of SoCalGas’ Program Portfolio**

6 This testimony presents SoCalGas’ EE Portfolio developed utilizing the same market
7 centric approach outlined by CA Public Utilities Commission in the Assigned Commission’s and
8 Administrative Law Judge’s Ruling Requiring Supplemental Filings (“ACR”) dated October 30,
9 2009 with:

- 10 • Statewide programs addressing the following Major Strategic Planning Areas:
11 Commercial, Industrial, Agricultural, Residential, New Construction, Upstream Lighting,
12 HVAC and Partnership segments along with the Emerging Technology, Workforce
13 Education and Training, Codes and Standards and Marketing Education and Outreach
14 programs
- 15 • Local Programs addressing market opportunities not adequately captured in the statewide
16 programs.

17 These program designs are described in greater detail in Witness Besa’s testimony,
18 Section 2 and Appendix B.

19 The EE Portfolio was developed following the directives of D. 09-05-037 using
20 cumulative goals from 2006, updated to incorporate the 2006-2007 Verification Report and 2008
21 DEER values. The net effect of this combination of aggressive goals and lowered savings
22 assumptions result in portfolio design criteria that require SoCalGas to pursue the maximum
23 energy savings possible in its service territory. As a result, we must abandon the previously
24 agreed upon state-wide incentive levels and increase incentives to near full incremental measure

1 costs to generate maximum participation in our programs. SoCalGas' therm savings goal for the
2 three year cycle is 76% of the Full Incremental Potential¹ identified for SoCalGas in the 2008
3 *California Energy Efficiency Potential Study* prepared by Itron. Cost effectiveness is negatively
4 impacted by this approach but was maintained at a satisfactory level of 1.17 (TRC) due to
5 diligent cost control on non-incentive items.

6 SoCalGas used the following guiding principles in designing its portfolio:

7 **Innovation:**

- 8 • Programs should be innovative in design and implementation, even as we build on the
9 foundation of the “tried and true” effective measures.
- 10 • Programs should be “customer-centric” – that is, designed with the customers in mind.

11 **Integration:**

- 12 • Programs and activities should support the Commission's Big Bold Energy Efficiency
13 Strategies (“BBEES”) and the draft California Energy Efficiency Strategic Plan (A. 08-
14 06-004) submitted on June 2, 2008 by the IOUs.
- 15 • Programs should be designed to capture synergies from integration with other state
16 priorities, including demand response, low income energy efficiency, renewables
17 generation, and Assembly Bill (“AB”) 32 Greenhouse Gas (“GHG”) reduction.

18 **Comprehensive**

- 19 • The EE Portfolio should be comprehensive in pursuing all cost effective energy
20 efficiency opportunities.
- 21 • Programs should tap the talent and resources in the market place by seeking opportunities
22 for partnerships with customers, local agencies, and service providers.

¹ Full Incremental Potential is defined as “Includes all measures analyzed with incentives set to full incremental costs.” Full incremental potential was adjusted upward to include agricultural and government potential not included in the Itron study

1 Finally, this testimony will demonstrate that SoCalGas' scenarios were developed in
2 compliance with Commission direction contained in the following:

- 3 ➤ D. 07-10-032, Interim Opinion on Issues Relating to Future Savings Goals
4 and Program Planning for 2009-2011 Energy Efficiency and Beyond;
- 5 ➤ Assigned Commissioner's and Administrative Law Judge's Ruling Regarding
6 2009 to 2011 Energy Efficiency Program Applications, February 29, 2008;
- 7 ➤ Assigned Commissioner's Ruling on Revision 4.0 of the Energy Policy
8 Manual, March 28, 2009;
- 9 ➤ Assigned Commissioner's and Administrative Law Judge's Ruling Regarding
10 Cost-Effectiveness Metrics and Energy Efficiency Policy Manual, March 14,
11 2008;
- 12 ➤ Joint Assigned Commissioners' Ruling Providing Guidance on Integrated
13 Demand-Side Management in 2009-2011 Portfolio Applications, April 11,
14 2008;
- 15 ➤ Assigned Commissioner's and Administrative Law Judge's Ruling Regarding
16 May 15, 2008 Energy Efficiency Portfolio Plans for 2009-2011, April 21,
17 2008;
- 18 ➤ Assigned Commissioner's and Administrative Law Judge's Ruling Regarding
19 Due Dates for 2009-2011 Energy Efficiency Portfolio Plans and Energy
20 Efficiency Strategic Plan Applications, May 5, 2008;
- 21 ➤ Assigned Commissioner's and Administrative Law Judge's Ruling Resetting
22 Date for 2009-2011 Energy Efficiency Program Applications, June 2, 2008;

- Assigned Commissioner and Administrative Law Judge’s Ruling Requiring Supplemental Filings, October 30, 2008;
- Assigned Commissioner and Administrative Law Judge’s Ruling Modifying Schedule and Requiring Additional Information for 2009-2011 Supplemental Filings, December 12, 2008;
- Energy Efficiency 2006-2007 Verification Report, February 5, 2009;
- Administrative Law Judge’s Ruling Revising Proceeding Schedule, February 10, 2009.
- D.09-05-037, Interim Decision Determining Policy and Counting Issues For 2009 to 2011 Energy Efficiency Programs dated May 21, 2009

II. Features of the Portfolio

SoCalGas’ EE Portfolio is composed of twelve state-wide programs, 8 local programs and 18 third party programs which were selected and/or designed to demonstrate our guiding principles of innovation, integration and comprehensiveness.

Specifically, innovation is demonstrated in all aspects of the portfolio, from the promotion of innovative new energy saving devices that offer customers new ways to save energy, to innovative program design and outreach methods that attract the interest of hard to reach customer segments, to innovative financing techniques that provide customers affordable solutions to increase participation in the programs.

The residential portfolio explores early retirement programs for water heaters, furnaces and pool heaters to capture savings earlier in the equipment life cycle. Incentives for new high efficiency gas technologies, such as Shower Start, a new, hot water saving technology, have been added to the portfolio and other technologies are continually identified and evaluated for addition

1 to our programs. The Residential New Construction program is transitioning to a “performance
2 based” incentive model from a tiered incentive to provide motivation to builders to capture every
3 increment of savings available. The Local Government Partnerships are expanding to include
4 new cities and will be more focused on local code development and compliance activities to
5 ensure expected savings are being achieved. In addition, we will be promoting Green Building
6 ratings to add credibility and visibility to energy efficient homes and better inform customers
7 about the value of energy savings at the time of purchase. Finally, we are proposing Net Zero
8 Energy home demonstration projects to educate builders and home buyers about technology that
9 is available today and move the industry toward a more sustainable future.

10 Our nonresidential portfolio will also include Net Zero Energy demonstration projects
11 that will bring visibility to innovative developers and promote the mainstreaming of sustainable
12 design techniques. Our successful food service equipment replacement program is being
13 expanded to include used equipment to address the large and hard to reach segment of this
14 industry that only purchases used equipment. We are also expanding our successful On-Bill
15 Financing program to make it even more attractive to small commercial and institutional
16 customers by increasing the cap on loan value and lengthening the minimum pay-back period.
17 We are also exploring the use of “point of sale” rebates for commercial equipment similar to the
18 program already available for residential customers to make it easier for commercial customers
19 to see the value of purchasing energy efficient equipment and to receive incentives to reinforce
20 their purchasing decision. Potential partnerships with financial institutions that focus on hard to
21 reach businesses are also being investigated to maximize financing opportunities for energy
22 efficiency projects at businesses located in lower income neighborhoods. Finally, SoCalGas will
23 be piloting a program to determine the value of utility ownership of large new and/or refurbished

1 HVAC systems on customer facilities. The Green Energy Systems pilot is intended to maximize
2 energy efficiency in new/refurbished long-life central plants when the customer does not have
3 the capital to upgrade their system thus avoiding 20 to 30 years of lost energy savings
4 opportunity.

5 Another innovative program change is that we are greatly expanding our local
6 government partnership activity to include an incubator process that assists interested cities in
7 developing long-term energy action plans and provides a roadmap on how they can become full
8 partners with SoCalGas over time and are working with these same partnerships to include code
9 enhancement and code enforcement efforts.

10 From an integration perspective, SoCalGas is continuing its close partnerships with
11 Southern California Edison (“SCE”) and with various water agencies to jointly market and
12 implement EE, Demand Response (“DR”), water conservation and renewable programs across
13 our service territory. That same integration effort is being pursued with our Low Income Energy
14 Efficiency (“LIEE”) programs through cross promotion where the audience is mixed low income
15 and moderate income residences. SoCalGas is also working with the South Coast Air Quality
16 Management District to explore program opportunities to jointly incent and promote early
17 replacement of gas appliances to save energy and reduce air pollutant emissions.

18 In the non-residential market, we have joined the Climate Registry’s Cool Planet program
19 where SoCalGas’ Account Executives jointly visit customers with Climate Registry personnel to
20 educate them on AB32 requirements and demonstrate how energy efficiency is their best GHG
21 reduction option. A pilot program is proposed for the food processing industry where we will
22 implement a comprehensive joint effort between SoCalGas, SCE and water agencies to develop
23 integrated facility improvement projects and, if successful, will expand the cooperative effort to

1 other industries as well. Finally, we will be working with our local government partnerships to
2 create expedited permitting programs for energy efficient projects.

3 Lastly, comprehensiveness has been and continues to be an important aspect of our
4 portfolio. With the aggressive goals set by the CPUC, we have to be comprehensive in our
5 approach if we want to have any chance of meeting or exceeding our goals. We are moving to
6 enhance our comprehensiveness by restructuring how we design and manage our programs going
7 forward. In the past our programs were managed across the residential and non-residential
8 markets uniformly. Beginning with this program cycle, our Program Managers will be
9 responsible for segments rather than specific programs. Our goal is to be even more
10 knowledgeable about the needs of customer segments (residential owners and renters; non-
11 residential manufacturing, agricultural, hospitality, foodservice, institutional, etc) and increase
12 our market penetration through segment specific program design, marketing and outreach. This
13 segment based approach is consistent with the state-wide program designs but is also being
14 utilized for our local program design and implementation

15 Other examples of comprehensiveness include our whole house program pilot and the
16 Home Performance Program that is a cooperative effort with SCE and water agencies for
17 residential customers and the introduction of Sustainable Communities program for non-
18 residential customers that promote LEED certification through comprehensive project evaluation
19 and reduction of overall project environmental impacts.

20 The biggest challenge we face at SoCalGas in achieving each of these program objectives
21 is the cost effectiveness of our EE Portfolio. Many of the innovative, integrated and
22 comprehensive programs outlined in our Application are experimental efforts that have higher
23 costs and typically lower savings versus our traditional incentive programs. As a result, they

1 usually are either not cost effective or only marginally cost effective as stand alone programs
2 during their start-up stages. Typically, our highly cost effective traditional programs more than
3 compensate for the newer and lower cost effective innovative programs. However, with more
4 focus being placed on innovation and long-term Strategic Planning activities, the program
5 balance is shifting our portfolio cost effectiveness lower. Moreover, many of the Energy
6 Division's EM&V reports and DEER updates on gas programs have not been released and if
7 they result in lower savings assumptions, SoCalGas' EE Portfolio's cost effectiveness could
8 easily slip below 1.0.

9 The primary cause of this cost effectiveness challenge is SoCalGas' unique position
10 among California's utilities. As a gas only utility, we do not enjoy the benefits of having high
11 value electric efficiency savings to compensate for the lower value gas efficiency savings. Given
12 this challenge, all of our energy efficiency partners must have reasonable expectations on the
13 level of support that is affordable through a gas utility versus what is affordable through an
14 electric utility. We commit to working with all of our energy efficiency partners to be as
15 aggressive and effective in achieving energy savings as possible within the limits of our
16 portfolio's economics.

17 In summary, SoCalGas believes its proposed 2009-2011 Energy Efficiency Portfolio is
18 innovative in its efforts to bring new technologies and programs to market, fully integrated in its
19 efforts to promote EE/DR/LIEE programs, water savings and renewable programs and
20 comprehensive in its attempt to identify and maximize all cost effective energy efficiency
21 opportunities. The following sections of this testimony provide greater detail on how these
22 objectives are achieved in our portfolio.

1 **II. Summary Tables and Graphs of Portfolio**

2 The following sections provide summary information of SoCalGas’ 2009-2011 proposed
3 energy savings, budgets and cost effectiveness. Please refer to Appendix C for the graphical
4 representations of these data.

5 **A. Summary of Portfolio Energy Savings**

6 The July 1, 2008 “Proposed Decision Adopting Interim Energy Efficiency Savings Goals
7 for 2012 through 2020, and Defining Energy Efficiency Savings goals for 2009 Through 2011”
8 (“July 1, 2008 PD”) Ordering Paragraph (“OP”) 4 adopts gross goals, not net of free riders.
9 SoCalGas’ proposed 2009-2011 portfolio is designed to meet or exceed these goals. The table
10 below shows the forecasted savings for the 2009-2011 energy efficiency portfolio

11 Table 1.1: SoCalGas Projected Annual Savings Impacts for 2009-2011

THERMS	2009	2010	2011	TOTAL
Annual Goal	27,200,000	28,300,000	29,900,000	85,400,000
2006-2008 Verification Impacts	1,288,536	1,288,536	1,288,536	3,865,608
EUL Decay Impacts	821,888	821,888	821,888	2,465,664
TOTAL	29,310,424	30,410,424	32,010,424	91,731,272

12
13 **B. Summary of Portfolio End Use Savings**

14 Appendix C Table 1.2 shows the forecasted 2009-2011 energy savings by sector and end
15 use for its Portfolio. .

16 **C. Summary of Sector Savings**

17 Appendix C Tables 1-3, 1-4, 1-5, 1-6 show SoCalGas’ 2009-2011 forecasted energy
18 savings by market sectors and measure groupings. It should be noted that SoCalGas’
19 nonresidential incentive programs have been designed to capture energy savings and incentives
20 for the Institutional and Local Government Partnerships. Therefore, there are no savings
21 forecasted for these partnerships.

1 **D. Summary of Portfolio Budget**

2 The following table shows SoCalGas’ requested 2009-2011 budget to support meeting its
3 aggressive energy savings goals and support the activities associated with the California Energy
4 Efficiency Strategic Plan (“CEESP”).

5 Table 1-2: 2009-2011 Proposed Annual Budget

6

2009	2010	2011	Total
\$ 159,014,027	\$ 164,619,116	\$ 170,923,789	\$ 494,556,932

7 **III. Elements of the 2009—2011 Portfolio Designed to Meet Energy Efficiency Strategic**
8 **Plan**

9 The details of each programs’ strategic plan activities is described in Section 5 e of each
10 Program Implementation Plan. Some of specific program activities include net zero building
11 pilots for both residential and commercial developments and enhancements to our existing new
12 construction programs to incent participants to approach net zero energy construction by
13 incorporating even more energy efficiency measures and solar. For the Heating Ventilation and
14 Air Conditioning (“HVAC”) Big Bold Energy Efficiency Strategies (“BBEES”) we will be
15 investing Emerging Technology resources to develop advanced space heating technology in
16 conjunction with the California oriented AC development project.

17 In addition, SoCalGas has specific programs addressing strategies in each of the market
18 segments including participation in the “Project Apollo” zero net energy program for the
19 residential segment, an expanded On-Bill Financing program for the commercial and agricultural
20 segments, and our Cool Planet program with the Climate Registry will assist industrial customers
21 comply with developing AB32 requirements.

22 Program expansions have also been proposed for our Emerging Technology, Codes and
23 Standards and Local Government Partnerships programs to address the identified needs for
24 greater technology development and local code compliance.

1 **IV. Summary of Initiatives and Activities Designed to Accomplish the BBEES**
2 The portfolio is designed to contribute to the success of achieving the BBEES. More
3 detail on this activity is discussed in Witness Besa Testimony Section 1.II.Band Appendix B.

4 **V. Estimated Budgets and Energy Savings Supporting the Energy Efficiency Strategic**
5 **Plan**
6 Table 1-3 presents the budgets proposed for the activities and programs SoCalGas has
7 included in its portfolio towards supporting the CEESP. Some of these programs are expected to
8 provide some level of savings (see Appendix C for savings estimates associated with these
9 activities.).

Table 1-3: SoCalGas Programs and Budgets That Support CEESP

Category	Program Name	2009	2010	2011	2009-2011
SW-CORE	#SW-C&SA - Building Standards Advocacy	\$294,594	\$294,594	\$294,594	\$883,782
SW-CORE	#SW-C&SB - Appliance Standards Advocacy	\$101,153	\$101,153	\$101,153	\$303,460
SW-CORE	#SW-C&SC - Compliance Training	\$229,811	\$229,811	\$229,811	\$689,433
SW-CORE	#SW-C&SD - Reach Codes	\$294,594	\$294,594	\$294,594	\$883,782
SW-CORE	#SW-ETA - Assessments	\$1,763,194	\$1,763,194	\$1,763,194	\$5,289,583
SW-CORE	#SW-ETB - Scaled Field Placement	\$0	\$0	\$0	\$0
SW-CORE	#SW-ETC - Demonstration / Showcasing	\$0	\$0	\$0	\$0
SW-CORE	#SW-ETD - Market and Behavioral Studies	\$0	\$0	\$0	\$0
SW-CORE	#SW-ETE - Technology supply-side efforts	\$0	\$0	\$0	\$0
SW-CORE	#SW-ETF - Technology Incubation	\$0	\$0	\$0	\$0
SW-CORE	#SW-ETG - Technology Test Centers (TTC)	\$0	\$0	\$0	\$0
SW-CORE	#SW-ETH - ZNE lab (PG&E)	\$0	\$0	\$0	\$0
SW-CORE	#SW-HVACA - Residential Energy Star Quality Insta	\$58,112	\$58,112	\$58,112	\$174,335
SW-CORE	#SW-HVACB - Commercial Quality Installation	\$37,125	\$37,125	\$37,741	\$111,991
SW-CORE	#SW-HVACC - Commercial Upstream Equipment	\$28,009	\$28,009	\$28,009	\$84,027
SW-CORE	#SW-HVACD - Quality Maintenance Program	\$67,736	\$67,736	\$67,736	\$203,208
SW-CORE	#SW-HVACE - Technology & Systems Diagnostics	\$308,842	\$308,843	\$308,843	\$926,527
SW-CORE	#SW-HVACF - HVAC WE&T	\$48,761	\$48,761	\$48,761	\$146,284
SW-CORE	#SW-HVACG - HVAC Core	\$36,669	\$36,669	\$36,669	\$110,006
SW-CORE	#SW-IDSM - SW Integrated DSM	\$200,041	\$200,041	\$200,041	\$600,122
SW-CORE	#SW-ME&OA - Marketing, Education & Outreach (Core)	\$2,113,696	\$2,113,696	\$2,113,696	\$6,341,089
SW-CORE	#SW-ME&OB - SW Marketing, E&O FYP	\$0	\$0	\$0	\$0
SW-CORE	#SW-ME&OC - ME&O Strategic Plan	\$0	\$0	\$0	\$0
SW-CORE	#SW-NCNR - NRNC Savings By Design	\$2,506,604	\$2,569,549	\$2,661,109	\$7,737,262
SW-CORE	#SW-NCResA - RNC	\$4,006,971	\$4,071,253	\$4,164,757	\$12,242,980
SW-CORE	#SW-WE&TA - Strategic Planning & Implementation	\$357,000	\$257,250	\$141,750	\$756,000
SW-CORE	#SW-WE&TB - WE&T Centers	\$3,052,229	\$2,946,179	\$2,841,179	\$8,839,587
SW-CORE	#SW-WE&TC - WE&T Connections	\$427,290	\$427,290	\$427,290	\$1,281,871
Partnerships	#LGovP01 - LA County IOU Partnership	\$214,468	\$216,944	\$219,508	\$650,920
Partnerships	#LGovP02 - Kern County Energy Watch Partnership	\$102,332	\$104,908	\$105,457	\$312,696
Partnerships	#LGovP03 - Riverside County Partnership	\$144,817	\$147,033	\$149,328	\$441,178
Partnerships	#LGovP04 - San Bernardino County IOU Partnership	\$142,694	\$144,833	\$147,049	\$434,576
Partnerships	#LGovP05 - Santa Barbara County IOU Partnership	\$103,353	\$112,566	\$128,023	\$343,941
Partnerships	#LGovP06 - SBCCOG Partnership	\$152,474	\$153,948	\$155,476	\$461,898
Partnerships	#LGovP07 - San Luis Obispo County Partnership	\$105,290	\$109,359	\$107,197	\$321,846
Partnerships	#LGovP08 - Tulare Cnty-Visalia Energy Watch Prtnr	\$95,816	\$97,128	\$98,491	\$291,434
Partnerships	#LGovP09 - Orange County Cities Partnership	\$132,401	\$135,927	\$134,137	\$402,465
Partnerships	#LGovP10 - ILG IOU Partnership	\$146,275	\$147,680	\$149,135	\$443,090
Partnerships	#LGovP11 - Community Energy Partnership	\$126,083	\$127,201	\$123,236	\$376,520
Partnerships	#LGovP12 - Desert Cities Partnership	\$24,840	\$25,294	\$25,764	\$75,899
Partnerships	#LGovP13 - VCREA Sub-Program Partnership	\$165,506	\$169,320	\$169,415	\$504,241
Partnerships	#LGovP14 - Palm Desert IOU Pilot Partnership	\$876,735	\$878,884	\$844,365	\$2,599,983
Local Core	#Local01 - OBF	\$937,263	\$948,227	\$959,920	\$2,845,410
Local Core	#Local03 - Local Sustainable Communities (RMV)	\$276,150	\$276,150	\$276,150	\$828,450
Local Core	#Local04 - Local Strategic Develop & Integ	\$284,396	\$284,396	\$284,396	\$853,187
	Total Strategic Plan Programs	\$19,963,325	\$19,933,654	\$19,896,087	\$59,793,065

- Broadening perspectives and the focus of action

SoCalGas has long recognized the value of early intervention into project design to achieve maximum energy savings. Our New Construction organization is charged with maintaining close relationships with developers, architects and designers to promote our EE programs. New to this program cycle is a proposal to test market acceptance of utility ownership of major HVAC systems on commercial buildings under our Green Energy Systems program. This program broadens our approach to achieving energy savings from major energy systems that, once installed, last for up to 30 years and present a significant lost opportunity if not captured up front. Another example of our broadened perspectives and focus in SoCalGas' 2009-2011 EE Portfolio is our Cool Planet program with the Climate Registry which targets high level executives to promote GHG reductions through EE projects.

- Leverage through partnerships

Our successful partnerships with water agencies and local governments are proposed to grow in this portfolio to take further advantage of synergies in program outreach and implementation and ultimately increase participation in EE programs at city facilities and with the general public. We have also reorganized our program management staff to operate as customer segment managers who work cooperatively with their segment based SoCalGas Account Executives and vendors/contractors/associations to better design and promote our EE programs.

The 2008 Energy Action Plan Update also lists six "next steps" recommended for utility energy efficiency programs. SoCalGas has considered each of these recommendations in the design of its EE Portfolio and has included new programs or program modifications to achieve each one.

- 1 • Statewide strategic plan roadmap

2 SoCalGas along with Pacific Gas and Electric (“PG&E”), SCE and SDG&E were
3 responsible for preparing the draft CEESP and have included a roadmap of our actions to
4 implement the strategic plan in section 2) c. of this section.

- 5 • Strategies to achieve “big bold” initiative goals

6 A listing of proposed SoCalGas activities to support the big bold initiatives is in section
7 2) b. of this chapter.

- 8 • New strategies to address existing buildings

9 For residential customers, SoCalGas has proposed a pilot “whole house” program with
10 SCE to encourage home owners to implement a comprehensive upgrade. This program will be
11 marketed with the assistance of realtors and contractors to capture the new home buyer and home
12 renovator and convince them to consider EE, DR and renewables in their project. For
13 commercial customers, our Green Energy Systems program mentioned above is also intended to
14 encourage comprehensive upgrades of existing buildings.

- 15 • Partnerships with local governments

16 SoCalGas has existing partnerships with numerous cities and counties within our service
17 territory. We are confident that successful partnerships with local governments can deliver
18 energy savings through city owned buildings, enhanced code compliance and enhanced public
19 outreach and are committed to working with our partners to achieve that goal.

- 20 • Additional low-income energy efficiency initiatives

21 SoCalGas submitted its enhanced LIEE 2009-2011 portfolio on May 15th, 2009
22 (Application (“A”).08-05-025) with increased funding and greater emphasis on integration with
23 other EE programs.

1 **B. Portfolio Supports Assembly Bill 32 Goals**

2 The regulatory requirements implementing AB 32 are still being debated but it is certain
3 that it will have a profound impact on California, its citizens and businesses and on governments
4 around the world. As the requirements are finalized, SoCalGas is prepared to adjust its portfolio
5 as necessary to support its implementation. In the interim, SoCalGas has proposed a partnership
6 with the Climate Registry to jointly implement a program called Cool Planet to educate Chief
7 Executive Officers (“CEOs”) and Chief Financial Officers (“CFOs”) of larger customers on the
8 value of early action to reduce GHG emissions, provide incentives to calculate their GHG
9 inventory and reinforce the value of energy efficiency as the lowest cost GHG reduction
10 measure. The objective is to convince senior executives to “push” the GHG message down
11 through their organization and raise the priority for capital allocation to EE projects.

12 Another activity that directly supports AB32 objectives is the statewide outreach activity
13 that SoCalGas jointly funds with PG&E, SCE and SDG&E which carries the message on climate
14 change to all Californians.

15 The following table shows the estimated environmental benefits (tons of CO2 and other
16 pollutants avoided) that would result from achieving SoCalGas’ proposed portfolio savings as
17 calculated using the E3 calculator.

1 Table 3-1: Environmental Benefits Resulting from 2009-2011 Proposed Program Benefits

	2009	2010	2011	Total
CO2 (tons)	11,381	11,808	12,430	35,619
NOx (lbs.)	3,298	3,421	3,601	10,320
PM10 (lbs.)	1,434	1,488	1,566	4,488

2
3
4 **C. Portfolio Supports Governor’s Green Building Initiative**

5 The Governor’s Green Building Initiative set a goal of achieving 20% reduction in
6 energy use in state buildings by 2015. SoCalGas has been actively working with state agencies
7 to achieve this goal but the progress has been slow due to financing and project planning hurdles.
8 To address these hurdles in its proposed portfolio, SoCalGas has greatly expanded its funding of
9 the statewide partnership with the UC/CSU system to take advantage of the numerous projects
10 that have been in the planning stage in the 2006-2008 program cycle. SoCalGas has also
11 expanded its On-Bill Financing program to offer up to \$250,000 financing over 10 years to
12 institutional customers to help address the financing hurdle and it has proposed the Green Energy
13 Systems utility ownership option for major HVAC systems that are typical for many state
14 buildings.

15 The table below shows the expected savings by building type from SoCalGas’ 2009-2011
16 proposed energy savings contribution to the Governor’s Green Building Initiative.

Table 3-2: 2009-2011 Green Building Initiative (GBI) Summary

Programs Contributing to the GBI	Budget(1)	Program Impacts	Emissions Reduction		
		Gas Savings (Gross Therms)	CO2 (tons)	Nox (lbs.)	PM10 (lbs.)
Core Programs (Commercial Sector Only)	\$ 69,126,673	65,961,374	6,787,658	13,455,607	-
California State Government Buildings	\$ 32,489,536	31,001,846	3,190,199	6,324,135	
Federal & Local Government Buildings	\$ 19,355,468	18,469,185	1,900,544	3,767,570	
Commercial Buildings	\$ 17,281,668	16,490,344	1,696,915	3,363,902	
Government Partnerships	\$ -	-	-	-	-
California State Government Buildings					
Federal & Local Government Buildings					
Commercial Buildings					
Third Parties	\$ 17,281,668	16,490,344	1,696,915	3,363,902	-
California State Government Buildings	\$ 8,122,384	7,750,462	797,550	1,581,034	
Federal & Local Government Buildings	\$ 4,838,867	4,617,296	475,136	941,893	
Commercial Buildings	\$ 4,320,417	4,122,586	424,229	840,975	
Grand Total	\$ 86,408,341	82,451,718	8,484,573	16,819,509	-
California State Government Buildings Total	\$ 40,611,920	38,752,308	3,987,749	7,905,169	-
Federal & Local Government Buildings Total	\$ 24,194,336	23,086,481	2,375,680	4,709,463	-
Commercial Buildings Total	\$ 21,602,085	20,612,930	2,121,143	4,204,877	-

II. Portfolio Supports the Statewide Energy Efficiency Strategic Plan

A. Portfolios Reflect Regional and Local Variations Complementing the Strategic Plan

The most significant “local variation” applicable to SoCalGas is our high concentration of industrial customers. This has warranted program changes that address the customized nature of industrial projects and the large project costs often encountered. SoCalGas’ non residential custom program is flexible in its application and maximum project size has been increased to \$1,000,000 to support this valuable market segment.

B. Portfolios Contain Appropriate Strategies and Program Designs for the Three Big Bold Energy Efficiency Strategies

1. Residential New Construction

SoCalGas’ portfolio supports this BBEES in a number of ways starting with the Residential New Construction program that will be focusing on pushing builders to achieve 35% better than Title 24. The next tier in program aggressiveness is our Sustainable Communities

1 Case Study which is designed to impact a large master planned community and push the
2 development toward Net Zero construction over its 15 year build-out life. The last program tier
3 is our planned small pilots for Net Zero Home designs within this program cycle which will test
4 the availability, cost and acceptability of net zero building options.

5 **2. Commercial New Construction**

6 SoCalGas' portfolio supports the Commercial New Construction BBEES in similar ways
7 to the residential BBEES. Our Savings By Design program encourages builders to maximize
8 energy efficiency. Our proposed Green Energy Systems pilot should facilitate program
9 participation by more builders with the capital burden of their HVAC plant transferred to utility
10 ownership. Finally, we propose to have pilot demonstrations of zero net energy building designs
11 during this program cycle to demonstrate ultimate sustainability options available today.

12 **3. Heating, Ventilation, and Air Conditioning Industry**

13 SoCalGas' Codes and Standards and Local Government Partnership programs will be
14 placing greater emphasis on cooperatively promoting and implementing quality installation and
15 code compliance for HVAC systems. We will also be piloting early replacement of furnaces in
16 older residential neighborhoods to facilitate a more rapid turnover of these inefficient units.

17 **C. Portfolios Support Strategic Plan Vision for All Sectors**

18 SoCalGas' overall roadmap between CEESP strategies and EE Program design is located
19 in Appendix C. Details of the specific strategies and associated program activities are
20 summarized there. In addition, specific details on the program activities supporting each
21 segment can be found in their respective Program Implementation Plans in Appendix B.

22 **1. Existing Residential**

23 SoCalGas' residential programs fully support the Strategic Plan Vision and its four key

1 strategies by our participation in “Project Apollo” zero net energy effort in new construction, and
2 partnering with SCE on a whole-house approach in our Single Family Energy Efficiency Retrofit
3 program. Also, our Codes and Standards program will be focusing on promoting high efficiency
4 local building codes through our Local Government Partnerships.

5 **2. Existing Commercial**

6 SoCalGas’ commercial programs fully support the Strategic Plan Vision and its four key
7 strategies by our enhanced Codes and Standards program that focuses on code compliance and
8 promotion of high efficiency local building codes through our Local Government Partnerships.

9 We also plan to have our billing system integrated with Energy Star Portfolio Manager by
10 January 1, 2009 to facilitate benchmarking and will be actively promoting building
11 benchmarking. We propose to increase the funding cap and repayment period for our On-Bill
12 Financing to make it more attractive to a larger population of customers. In addition our
13 proposed Green Energy Systems pilot provides an alternative “financing” option for customers.
14 Finally, we propose zero net energy pilots to demonstrate today’s technologies to prospective
15 commercial builders.

16 **3. Industrial**

17 SoCalGas has a large industrial customer segment and our Non-Residential Custom
18 Energy Efficiency programs appropriately support the Strategic Plan Vision for this segment and
19 its four key strategies. Our Mobile Workshops takes training and analysis tools directly to
20 customer facilities to address process improvement opportunities. Our On-Bill Financing
21 program can assist in the funding of the recommended projects. We also plan to fully participate
22 in the development of California’s energy efficiency brand through the Statewide Marketing and
23 Outreach program. Lastly, our Cool Planet program with the Climate Registry will help

1 industrial customers understand and address their GHG emissions.

2 **4. Agricultural**

3 SoCalGas' Agricultural programs support the Strategic Plan Vision for this segment
4 through our On-Bill Financing program which has been expanded and will better match the
5 financing needs of this segment. In addition, our state-wide efforts on Marketing, Education and
6 Outreach will provide consistent information across the state delivered locally to this segment.
7 We will also be jointly piloting a program with SCE and local water agencies to target
8 comprehensive process upgrades at food processing facilities.

9 **5. Emerging Technologies**

10 The Emerging Technology programs at all of the IOUs are proposed to be expanded
11 significantly and are designed to work cooperatively to support the CEESP through a variety of
12 strategies including gathering market intelligence, leveraging private investment, promoting
13 product improvements and adoption and focusing on leading edge technology. Specific project
14 areas identified for funding include building management systems, innovative heat recovery,
15 super-efficient boilers and residential whole house solutions.

16 **6. Codes and Standards**

17 SoCalGas' Codes and Standards program is broadening its role significantly to support
18 the Strategic Plan's vision for this sector. Enhanced activities include working with Local
19 Government Partnerships to enhance code compliance and enforcement and promote adoption of
20 higher efficiency local building codes. In addition, case studies are being expanded to provide
21 more research and analysis to increase the rate technologies are transitioned from programs to
22 code.

1 **7. Local Government**

2 SoCalGas’ Local Government Partnerships are expanding in number as well as scope to
3 support the CEESP. The Partnerships will focus on promoting enhanced local building codes,
4 education and training of city employees and retrofitting city facilities to demonstrate leadership
5 to the community and joint outreach on EE programs to their citizens.

6 **8. Demand-Side Management Integration**

7 This section of the testimony presents SoCalGas’ current and proposed integration
8 activities across various program portfolios in different Commission proceedings, EE, LIEE, DR,
9 Advanced Metering Infrastructure (“AMI”) Distributed Generation (“DG”), and California Solar
10 Initiatives (“CSI”). SoCalGas submitted its 2009-2011 LIEE application (A.08-05-025) on May
11 15, 2008. SoCalGas notes that it is not the program administrator of the electric EE, DR, DG
12 and CSI program portfolios and they are currently assigned to SCE for most of our service
13 territory and with PG&E and SDG&E in smaller portions of our service territory. Although,
14 these various proceedings are currently independent of each other, the CEESP provides vision
15 and strategy to leverage these various program efforts to ensure the realization of the aggressive
16 BBES laid out by the Commission in D.07-10-032. Refer to Witness Besa’s Section 4.

17 **9. Marketing, Education, and Outreach**

18 SoCalGas is participating in the coordinated statewide Marketing, Education and
19 Outreach program designed to support the Strategic Plan vision by facilitating a transition to a
20 California energy efficiency brand. The program utilizes extensive market research and behavior
21 research to develop impactful messages that are released in multiple languages. The program is
22 intended to deliver messages designed to influence general behavior and compliment local utility
23 messages that promote specific program participation.

1 **10. Training and Workforce Development**

2 One of the keys to success for future implementation of energy efficiency technologies is
3 the need to train the next generational workforce in energy-related positions. The WE&T
4 program will lay the foundations for improving the knowledge and skills of the current
5 generation—from local code officials, energy managers, and HVAC technicians to school
6 teachers in order to develop the human recourses needed to achieve market transformation.

7 Achieving success in creating a well-educated workforce well educated in energy
8 efficiency matters will require large-scale, ongoing, collaborative education, and training efforts
9 to match evolving demands for both the type of jobs and number of workers needed to fully
10 implement the Strategic Plan.

11 Addressing human capital resource requirements will require collaborative efforts of
12 federal, state and local governments; financial institutions; community-based and non-profit
13 organizations; industry and labor organizations and utilities. These entities present potential
14 funding sources and opportunities for partnerships.

15 In support of the CEESP’s vision that “by 2020 California’s workforce is trained and
16 engaged to provide the human capital necessary to achieve California’s economic energy
17 efficiency and demand-side management potential,” IOUs plan to implement a variety of
18 workforce development strategies that encourage and nurture the development of “green collar”
19 jobs through their strategic planning initiatives, and education and training programs. These
20 strategies are contained in its WE&T program implementation plan (see Appendix B).

21 SoCalGas’ Education and Training program will also contribute to developing a “green”
22 workforce as it provides various opportunities through its various energy efficiency training
23 programs and seminar.

1 **11. Low-Income Energy Efficiency Program**

2 SoCalGas’ Energy Efficiency programs support the Strategic Plan’s vision of integration
3 with LIEE programs in several ways. First, our Residential New Construction program proposes
4 a pilot to work with developers of affordable housing to develop best practice design techniques
5 for this segment, provide design assistance incentives, financial incentives and encourage
6 participation in a sustainable building program. Our Multi-family program will be integrated
7 with LIEE to cover common areas in low income developments that are not covered by the LIEE
8 program. We will also work with Low Income Home Energy Assistance Program (“LIHEAP”)
9 agencies to provide information about appliance rebates.

10 **III. Portfolios Provide Continued Strategic Planning in 2009-2011 and Beyond**

11 **A. Strategic Development and Integration**

12 SoCalGas is committed to the vision and goals outlined in the CEESP which includes
13 customer segmentation and targeted program development, the integration of EE/DSM and
14 emerging high efficiency technologies coupled with innovative and comprehensive program
15 design and theory, to create market transformation in California. A focused team of qualified
16 resources has been identified to support these activities and drive the direction of the programs
17 through innovation and the inclusion of best practices. This team will be dedicated to this
18 activity, collaborating with regulatory, program, technology and other staff, as a coordinating
19 entity.

20 The team will be specifically responsible for overseeing activities associated with
21 achieving strategic plan goals and ensuring that the strategic plan itself is updated, maintaining
22 relevance and providing guidance and direction on a continuous basis. In addition, the team will
23 be engaged in ongoing work to review and update implementation of the CEESP, and 2009-2011

1 programs based upon it.

2 **B. Application Identifies New 2009-2011 Pilot Project Programs Based on Strategic**
3 **Plan Goals and Strategies**

4 SoCalGas offers a variety of pilots and projects that further the goals and strategies
5 presented in the CEESP. These pilots are discussed in various sections of the testimony
6 particularly in Witness Besa Section 1, the IDSM section and more specifically in the Program
7 Implementation Plans in Appendix B.

8 Some of the pilots in SoCalGas' application include, Sustainable Communities Case
9 Studies, Whole House Performance Program (see Single Family Energy Efficiency Retrofit
10 Program Implementation Plan); Multifamily Whole Building Pilot (see Multifamily Energy
11 Efficiency Retrofit Program Implementation Plan), Local Government Partnerships and
12 Financing options discussed in the On-Bill Financing Witness Besa's Section 1.

13 **C. Encumbering Funds for Long-Term Projects**

14 In previous program years (prior to 2006), the Commission allowed the utilities to
15 commit incentive monies associated with customer projects with installation periods longer than
16 the program cycle. Utilities tracked commitments and reported the expenditure when it finally
17 occurred and at that time recorded the savings. This was a practice as far back as 1994.
18 SoCalGas believes that this is a reasonable process for encumbering funds for long-term projects.
19 It assures customers of the availability of program funds to finance their project. However, a
20 reasonable contract term should be determined based on the target market (e.g., new construction
21 projects should have at least a 4 to 5 year commitment). Projects that fail to install within the 4
22 to 5 year period will not be guaranteed incentives beyond that time.

**SECTION 3
WITNESS QUALIFICATIONS**

1
2
3 My name is Mark F. Gaines. My business address is 555 West Fifth Street, Los Angeles,
4 CA 90013. I am employed by Southern California Gas Company as Director Customer
5 Programs. My responsibilities include Energy Efficiency and Demand Response program
6 development and implementation for SDG&E and SoCalGas. I have been employed by the
7 SoCalGas since 1983.

8 I have a Bachelor of Science in Civil and Environmental Engineering, a Masters in
9 Business Administration and am a registered professional engineer in Mechanical Engineering in
10 California. I have previously testified before this Commission.

11 The purpose of my testimony is to sponsor Chapters 1 and 2 of this Application Exhibit.