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January 5, 2009

ADVICE LETTER 2054-E/1829-G
(U902-E)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**SUBJECT: SDG&E 2009-11 Low Income Energy Efficiency Program and Budget
Compliance Filing Pursuant to D.08-11-031**

In compliance with Ordering Paragraphs (OP) 71 and 78 of Decision (D.) 08-11-031, San Diego Gas & Electric Company (SDG&E) hereby submits for filing its expanded 2009-11 Low Income Energy Efficiency (LIEE) related Program Implementation Plans (PIPs). SDG&E's PIPs are incorporated herein as Attachments 1 through 6.

PURPOSE

The purpose of this Advice Letter is to comply with the California Public Utilities Commission's (Commission) directive to submit a Tier 2 compliance Advice Letter expanding upon SDG&E's PIPs provided in attachments to the large investor-owned utilities' (IOUs)¹ 2009-2011 budget applications. Southern California Gas Company (SoCalGas) is currently making a similar filing.

BACKGROUND

In D.08-11-031, the Commission adopted the IOUs' 2009-11 LIEE program budgets and the California Alternate Rates for Energy (CARE) subsidy budgets. As a result of the significant budget increases approved in D.08-11-031 and the articulation of major new policy directions for LIEE outlined in D.07-12-051, the Commission emphasized the need for IOUs to capitalize on programs that focus on energy efficiency savings and evolve more towards resource programs in support of the Commission's long-term vision. Subsequently, the Commission outlined stringent requirements to 1) treat LIEE as a resource program by focusing on energy savings, in addition to customer's quality of life, 2) propose substantial budget increases to provide LIEE measures for 25% of eligible and willing customers in the 2009-11 period, 3) emphasize long term and enduring savings, rather than quick fixes, and 4) focus LIEE programs on customers with high energy use, while continuing to serve all eligible low income populations.²

¹ Large IOUs consist of SDG&E, SoCalGas, Pacific Gas and Electric Company (PG&E), and Southern California Edison Company (SCE).

² D.08-11-031 at p 6.

OP 71 of D.08-11-031 directs the IOUs to expand on the LIEE program pilot descriptions found in their 2009-11 Applications to include: a) a timeline; b) projected breakdown of budgets; c) estimated energy savings; d) estimated resources leveraged/saved; e) combined estimate of energy savings/shared resources (combined pilots); and f) overview of Pilot Evaluation Plan (PEP). In Attachments 5 and 6, SDG&E complies with the directives of OP 71 to expand on its In-Home Display Pilot and the Programmable Thermostat Pilot by providing the new materials requested by the Commission as part of the LIEE program.

In addition, pursuant to OP 78, SDG&E has expanded on the Joint IOUs Measurement and Evaluation studies (Non Energy Benefits Study, Process Evaluation Study, 2009 Load Impact Evaluation Study, and Refrigerator Degradation Study) authorized by the Commission to include a) a timeline; b) a projected breakdown of budget; and c) contractor selection in Attachments 1 through 4 for the LIEE program.

This filing will not increase any rate or charge, cause the withdrawal of service, or conflict with any rate schedule or rule.

EFFECTIVE DATE

D.08-11-031 directs SDG&E to submit this Advice Letter as a Tier 2 filing and therefore is subject to Energy Division disposition (effective after staff approval) pursuant to GO 96-B. SDG&E respectfully requests that this Advice Letter be approved effective February 4, 2009, which is 30 days from the date filed.

PROTEST

Anyone may protest this Advice Letter to the Commission. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. The protest must be made in writing and must be received within 20 days of the date this Advice Letter was filed with the Commission. There is no restriction on who may file a protest. The address for mailing or delivering a protest to the Commission is:

CPUC Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

Copies of the protest should also be sent via e-mail to the attention of both Honesto Gatchalian (jni@cpuc.ca.gov) and Maria Salinas (mas@cpuc.ca.gov) of the Energy Division. A copy of the protest should also be sent via both e-mail and facsimile to the address shown below on the same date it is mailed or delivered to the Commission.

Attn: Todd Cahill
Regulatory Tariff Manager
8330 Century Park Court, Room 32C
San Diego, CA 92123-1548
Facsimile No. (858) 654-1788
E-mail: tcahill@semprautilities.com

NOTICE

A copy of this filing has been served on the utilities and interested parties shown on the attached list, including interested parties to service list A.08-05-024, by either providing them a copy electronically or by mailing them a copy hereof, properly stamped and addressed.

Address changes should be directed to SDG&E Tariffs by facsimile at (858) 654-1788 or by e-mail at SDG&ETariffs@semprautilities.com.

RON VAN DER LEEDEN
Director – Rates, Revenues & Tariffs

(cc list enclosed)

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **SAN DIEGO GAS & ELECTRIC (U 902)**

Utility type:

ELC GAS
 PLC HEAT WATER

Contact Person: Aurora Carrillo

Phone #: (858) 654-1542

E-mail: acarrillo@semprautilities.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas
PLC = Pipeline HEAT = Heat WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) # 2054-E/1829-G

Subject of AL: SDG&E's 2009-11 Low Income Energy Efficiency Program and Budget Compliance

Filing Pursuant to D.08-11-031

Keywords (choose from CPUC listing): Compliance, LIEE

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #:

D.08-11-031

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL N/A

Summarize differences between the AL and the prior withdrawn or rejected AL¹: N/A

Does AL request confidential treatment? If so, provide explanation: _____

Resolution Required? Yes No

Tier Designation: 1 2 3

Requested effective date: 02/04/09

No. of tariff sheets: 0

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division

Attention: Tariff Unit

505 Van Ness Ave.,

San Francisco, CA 94102

mas@cpuc.ca.gov and jnj@cpuc.ca.gov

San Diego Gas & Electric

Attention: Todd Cahill

8330 Century Park Ct, Room 32C

San Diego, CA 92123

tcahill@semprautilities.com

¹ Discuss in AL if more space is needed.

General Order No. 96-B
ADVICE LETTER FILING MAILING LIST

cc: (w/enclosures)

Public Utilities Commission

DRA

D. Appling
S. Cauchois
J. Greig
R. Pocta
W. Scott

Energy Division

P. Clanon
S. Gallagher
H. Gatchalian
D. Lafrenz
M. Salinas

CA. Energy Commission

F. DeLeon
R. Tavares

Alcantar & Kahl LLP

K. Harteloo

American Energy Institute

C. King

APS Energy Services

J. Schenk

BP Energy Company

J. Zaiontz

Barkovich & Yap, Inc.

B. Barkovich

Bartle Wells Associates

R. Schmidt

Braun & Blaising, P.C.

S. Blaising

California Energy Markets

S. O'Donnell
C. Sweet

California Farm Bureau Federation

K. Mills

California Wind Energy

N. Rader

CCSE

S. Freedman
J. Porter

Children's Hospital & Health Center

T. Jacoby

City of Chula Vista

M. Meacham
E. Hull

City of Poway

R. Willcox

City of San Diego

J. Cervantes
G. Lonergan
M. Valerio

Commerce Energy Group

V. Gan

Constellation New Energy

W. Chen

CP Kelco

A. Friedl

Davis Wright Tremaine, LLP

E. O'Neill
J. Pau

Dept. of General Services

H. Nanjo
M. Clark

Douglass & Liddell

D. Douglass
D. Liddell
G. Klatt

Duke Energy North America

M. Gillette

Dynegy, Inc.

J. Paul

Ellison Schneider & Harris LLP

E. Janssen

Energy Policy Initiatives Center (USD)

S. Anders

Energy Price Solutions

A. Scott

Energy Strategies, Inc.

K. Campbell
M. Scanlan

Goodin, MacBride, Squeri, Ritchie & Day

B. Cragg
J. Heather Patrick
J. Squeri

Goodrich Aerostructures Group

M. Harrington

Hanna and Morton LLP

N. Pedersen

Itsa-North America

L. Belew

J.B.S. Energy

J. Nahigian

Luce, Forward, Hamilton & Scripps LLP

J. Leslie

Manatt, Phelps & Phillips LLP

D. Huard
R. Keen

Matthew V. Brady & Associates

M. Brady

Modesto Irrigation District

C. Mayer

Morrison & Foerster LLP

P. Hanschen

MRW & Associates

D. Richardson

OnGrid Solar

Andy Black

Pacific Gas & Electric Co.

J. Clark
M. Huffman
S. Lawrie
E. Lucha

Pacific Utility Audit, Inc.

E. Kelly

R. W. Beck, Inc.

C. Elder

School Project for Utility Rate Reduction

M. Rochman
Shute, Mihaly & Weinberger LLP

O. Armi

Solar Turbines

F. Chiang

Sutherland Asbill & Brennan LLP

K. McCrea

Southern California Edison Co.

M. Alexander
K. Cini
K. Gansecki
H. Romero

TransCanada

R. Hunter
D. White

TURN

M. Florio
M. Hawiger

UCAN

M. Shames

U.S. Dept. of the Navy

K. Davoodi
N. Furuta
L. DeLacruz

Utility Specialists, Southwest, Inc.

D. Koser

Western Manufactured Housing

Communities Association

S. Dey

White & Case LLP

L. Cottle

Interested Parties In:

A.08-05-024

Attachment 1
SDG&E Advice Letter 2054-E/1829-G
Non Energy Benefits Study

Joint Utility Study (PG&E, SCE, SDG&E, SoCalGas) ¹

California Public Utilities Commission (Commission) Decision (D.) 08-11-031 directs PG&E, SCE, SDG&E, and SoCalGas (the Joint Utilities) to conduct a study on non-energy benefits (NEBs) of the Low Income Energy Efficiency (LIEE) program.

Ordering Paragraph 78 of D.08-11-031 directs the Joint Utilities to expand on the study descriptions provided in their Applications to include the following new materials:

- A timeline: projected start and finish dates, reporting dates, and tentative final report date;
- Projected breakdown of budgets: Categories displaying material costs, administration, data collection and analysis, reporting costs, contractor fees (when applicable), should be included along with a brief narrative paragraph explaining the breakdown; and
- Specification of Contractor: For Programmatic M&E Studies – provide a brief narrative of selection process for the chosen contractor.

Herein, the Joint Utilities have expanded on the NEBs Study description to provide the new information requested by the Commission.

Regulatory Background

D.02-08-034 directed the investor-owned utilities (IOUs) to evaluate the cost-effectiveness of the LIEE program measures for program year (PY) 2003 using a model that incorporated NEBs such as comfort, health and safety along with direct energy savings benefits to assess LIEE program cost-effectiveness. The NEBs developed for these tests were initially designed for use at the program level and were allocated to individual measures according to their energy savings. The methodology for conducting these tests and the criteria for evaluating the test results were recommended to the Commission by the Cost Effectiveness Subcommittee of the Reporting Requirements Manual Working Group and the LIEE Programs Standardization Team (Standardization

¹ Throughout this document, these utilities are referred to as “the IOUs” or “the Joint Utilities.”

Team) in a jointly filed report in March 2002² and were subsequently adopted by the Commission in D.02-08-034.

The methodology for estimating the NEBs and allocating them to program measures is still being used by the Program today, despite the outdated nature of the assumptions incorporated into the original model. This Study is expected to update the current methodology used by the IOUs to assign NEBs to program measures for the purpose of assessing their cost-effectiveness.

Study Objectives

The study objectives for Phase 1 are:

- Summarize the use of NEBs in energy efficiency evaluations to date;
- Estimate the range of value that NEBs should contribute to total program benefits;
- Recommend an approach for incorporating NEBs in cost effectiveness tests for the LIEE Program; and
- Develop a work scope for Phase 2 which will develop a methodology for estimating NEBs for the LIEE Program and integrating them into the cost effectiveness tests required for LIEE Program reporting.

Study Approach

This study will be conducted in two phases. Phase 1 will essentially be a scoping study designed to research and report on what has been done with NEBs in energy efficiency evaluations to date, to evaluate the best methodology for quantifying NEBS in the LIEE program, and to direct the focus of the second phase of the project.

Specific tasks for the study include the following:

- Provide background on the use of NEBs in cost-effectiveness tests for low-income energy efficiency programs in the form of a literature review
- Discuss the appropriate use and range of value for various NEBs in program design and reporting
- Assess various options for quantifying NEBs which may include but not be limited to:
 1. a working model that calculates NEB values or
 2. a set of factors to be applied to energy savings or
 3. a list of NEB values by measure, which may vary by utility or climate zone
- Develop a methodology for quantifying appropriate NEBs at the measure level and integrating them into the cost effectiveness tests required for LIEE Program reporting.

² *Final Report for LIEE Program and Measure Cost Effectiveness*, submitted to the CPUC by the Cost Effectiveness Subcommittee of the Reporting Requirements Manual (RRM) Working Group and the LIEE Standardization Project Team, March 28, 2002.

The first step of Phase 1 will entail identifying and reviewing existing studies where NEBs were estimated for the purpose of quantifying energy efficiency program benefits. The literature review will include an assessment of the methods used and the resulting estimated NEBs reported. The studies reviewed will not be limited to low-income programs, but particular consideration should be given to NEB valuations for low-income programs. The review will include a summary of value ranges of NEBs reported in the literature.

Given the results of the literature review and the particular needs of the California LIEE Program, the Consultant will recommend an appropriate approach for estimating NEBs and substantially improving their integration into the Program's cost effectiveness testing. The Consultant should consider various options, assess the advantages and disadvantages of each, and develop a recommended approach for LIEE NEB valuation. The Consultant will hold a public workshop to vet the recommended approach and address comments of interested parties. If workshop comments lead to a revised recommendation, the Consultant shall develop the revised plan and again submit it for review and comment.

Once the recommended approach is finalized, the Consultant will develop a detailed work scope for the second phase of this project, which will involve developing the methodology to be used by the LIEE Program for NEB valuation. The Phase 2 work scope will include study objectives, key research questions, a list of tasks to be completed, and a set of deliverables. The final deliverable for Phase 1 will be a written report, which will document the work completed during Phase 1 and provide the final work scope for Phase 2.

Phase 2 of the study will continue to develop the recommended methodology. The final deliverable will be a model to be used by the IOUs to estimate NEBs for the purpose of cost effectiveness testing. The model shall be accompanied by a final report documenting the research and assumptions incorporated into the model.

Project Timeline

Specific deliverable dates and tasks will be determined upon contracting with the winning bidder. Table 1 presents a suggested timeline for the major components of the study. As shown, Phase 1 of the study is expected to be completed during 2009. Phase 2 is expected to be completed in 2010.

Table 1: Suggested Timeline for NEBs Study

Item	Date
Release of Phase 1 RFP	March 2009
Selection of Phase 1 Consultant	April 2009
Delivery of Literature Review and Recommendations	July 2009
Presentation of Recommendations in Public Workshop(s)	August 2009
Final Report including Work Scope for Phase 2	September 2009
Release of Phase 2 RFP	October 2009
Selection of Phase 2 Consultant	November 2009
Delivery of Model and Final Report	April 2010

Project Budget Guidelines

The project budget will be determined by the winning proposal. For preliminary planning purposes, however, some general guidelines are provided in Table 2.

Table 2: Guidelines for NEBs Study Budget

Study Task	Total Study Cost	PG&E Cost (30%)	SCE Cost (30%)	SoCalGas Cost (25%)	SDG&E Cost (15%)
Project Initiation	\$9,000	\$2,700	\$2,700	\$2,250	\$1,350
Develop Research Plan	\$18,000	\$5,400	\$5,400	\$4,500	\$2,700
Develop Sampling Design	\$9,000	\$2,700	\$2,700	\$2,250	\$1,350
Specify Data Collection Procedure/Collect Data	\$135,000	\$40,500	\$40,500	\$33,750	\$20,250
Data Analysis	\$78,000	\$23,400	\$23,400	\$19,500	\$11,700
Prepare Draft Report	\$24,000	\$7,200	\$7,200	\$6,000	\$3,600
Prepare Final Report	\$9,000	\$2,700	\$2,700	\$2,250	\$1,350
Project Management & Reporting	\$18,000	\$5,400	\$5,400	\$4,500	\$2,700
Total Costs	\$300,000	\$90,000	\$90,000	\$75,000	\$45,000

Contractor Selection Process

The NEB study is not a programmatic M&E study, and discussion of the contractor selection process is therefore not required in this study implementation plan. However, the IOUs currently anticipate using a bid process to select and hire a consultant to conduct this study. The key factors by which the proposals will be judged include, but are not limited to, the following criteria:

1. Soundness, thoroughness, and practicality of the proposed approach in meeting the objectives and issues described in the RFP,
2. Experience of key personnel in successfully completing similar evaluations,
3. Staffing plan and time allocation for the proposed work scope,
4. Quality of the proposal, and
5. Bid amount.

Attachment 2
SDG&E Advice Letter 2054-E/1829-G
Process Evaluation of the 2009 LIEE Program

Joint Utility Study (PG&E, SCE, SDG&E, SoCalGas)

California Public Utilities Commission (Commission) Decision (D.) 08-11-031 directs PG&E, SCE, SDG&E, and SoCalGas (the Joint Utilities) to conduct a process evaluation of the 2009 Low Income Energy Efficiency (LIEE) program.

Ordering Paragraph 78 of D.08-11-031 directs the Joint Utilities to expand on the study descriptions provided in their Applications to include the following new materials:

- A timeline: projected start and finish dates, reporting dates, and tentative final report date;
- Projected breakdown of budgets: Categories displaying material costs, administration, data collection and analysis, reporting costs, contractor fees (when applicable), should be included along with a brief narrative paragraph explaining the breakdown; and
- Specification of Contractor: For Programmatic M&E Studies – provide a brief narrative of selection process for the chosen contractor.

Herein, the Joint Utilities have expanded on the LIEE Process Evaluation description to provide the new information requested by the Commission.

Study Objectives

An LIEE process evaluation was recommended by the Joint Utilities because one has not been done for several years. With the changes in the program, the Joint Utilities believed that it would be prudent to conduct an evaluation of the effectiveness and efficiency of the program design and operations.¹

The Process Evaluation will assess the effectiveness of the current LIEE program and develop recommendations for program design and delivery that will improve the effectiveness of the program. The primary deliverable is a final report that will present the findings and recommendations for possible program changes; however, the Joint

¹ The CPUC-adopted *California Energy Efficiency Evaluation Protocols* document states, “It is anticipated that most programs will have at least one in-depth comprehensive process evaluation within each program funding cycle (e.g., 2006-2008), but a program may have more or less studies depending on the issues that the IOUs need to research, the timing of the information needed and the importance of those issues within the program cycle.” (p. 133)

Utilities are also seeking usable information and recommendations as the evaluation progresses, so that program managers can get timely feedback.

The 2009-2011 LIEE program adopted in D.08-11-031 includes several new components, such as the whole neighborhood approach and a statewide awareness campaign. The 2009 Process Evaluation will give the Joint Utilities and the Commission our first opportunity to understand how these new approaches are impacting key Commission and utility program objectives, so that program elements can be fine-tuned to increase program participation and effectiveness.

In addition to assessing the effectiveness of various components of the LIEE program such as outreach, contractor delivery, data tracking, etc., this study will also look at customer behavior and attitudes towards energy saving opportunities. The study will assess customer willingness to participate in energy saving programs, the particular needs of high usage customers, and low income customer response to energy education and communication efforts. Finally, a key component of this process evaluation will explore attitudinal and behavioral aspects of the LIEE and CARE population that create barriers to participation in the low income programs in order to help understand ways to mitigate and overcome these barriers.

As a review of program activities during the first year of the 2009-2011 Programmatic Initiative, the process evaluation will play a very important role in evaluating Joint Utility program processes and how they align with the Initiative. The Process Evaluation will also examine the delivery of customer outreach and energy education. The Joint Utilities believe that an evaluation of customer outreach and energy education will provide useful data that can be used to enhance Marketing Education & Outreach (ME&O) strategies for low income customers.

Furthermore, an assessment of the effectiveness of the program strategy will provide an opportunity to refine and improve delivery and implementation in order to meet the goals of the strategic plan and other initiatives. In addition, understanding customer attitudes toward program messages and energy saving opportunities will inform marketing and outreach plans which will help achieve penetration goals.

The customer outreach and energy education findings will lead to enhancements that, when integrated into the program, may result in improved customer acceptance and lead to successful low cost and no cost measures with positive energy efficiency potential, increased customer awareness and favorable customer energy outcomes – all which facilitate increased market penetration. The traditional process evaluation will certainly focus on how the goals of the Programmatic Initiative are being met and how the LIEE strategies are supporting those goals in practice.

Specific objectives of the 2009 LIEE process evaluation include:

- Documenting program goals, implementation strategies and procedures across utilities;

- Providing real-time feedback to program managers with specific focus on improving program recruitment and delivery, and identifying implementation and program design problems for review and modification to ensure program dollars are fully utilized and reach intended participants to achieve the greatest benefit;
- Assessing the effectiveness of the program;
- Evaluating areas of customer and trade ally satisfaction/dissatisfaction;
- Identifying barriers and obstacles to meeting program goals;
- Characterizing attitudes and energy-saving behaviors of targeted customers;
- Providing recommendations for improving programs;
- Determining the effectiveness and efficiency of the new LIEE program design and operations, including the whole neighborhood approach;
- Assessing customer willingness to participate in energy saving programs; and
- Assessing how our low income customers respond to LIEE education and outreach.

Study Approach

The study will be performed in accordance with the California Energy Efficiency Evaluation Protocols (the Protocols).² The Protocols allow for various data collection strategies including, but not limited to, interviews and surveys, focus groups, operational observations (such as ride-alongs with program contractors), database evaluation, etc. The RFP will invite bidders to propose one or more approaches that follow the Protocols while not exceeding the study's timeline and budget constraints.

The Joint Utilities are particularly interested in getting timely, actionable recommendations for reaching Program goals during the 2009 to 2011 cycle in a cost effective manner. To that end, the RFP will suggest that continued communication with the Joint Utilities be maintained during the study, and that findings be delivered via memorandums as they become available.

Project Timeline

Specific deliverable dates and tasks will be determined upon contracting with the winning bidder. Table 1 presents a suggested timeline for the major components of the study.

² California Energy Efficiency Evaluation Protocols: Technical, Methodological and Reporting Requirements for Evaluation Professionals, April 2006. Available at <http://www.calmac.org>.

Table 1: Suggested Timeline for Process Study

Item	Date
Release of RFP	August 2009
Selection of Consultant and Commencement of Contract	September 2009
Final Research Plan and Sampling Strategy	November 2009
Data Collection and Analysis	January - May 2010
Present Recommendations in Public Workshop(s)	July 2010
Deliver Final Report	November 2010

Project Budget Guidelines

The project budget will be determined by the winning proposal. For preliminary planning purposes, however, some general guidelines are provided in Table 2.

Table 2: Guidelines for Process Study Budget

Study Task	Total Study Cost	PG&E Cost (30%)	SCE Cost (30%)	SoCalGas Cost (25%)	SDG&E Cost (15%)
Project Initiation	\$ 7,500	\$ 2,250	\$ 2,250	\$ 1,875	\$ 1,125
Develop Research Plan	\$ 15,000	\$ 4,500	\$ 4,500	\$ 3,750	\$ 2,250
Develop Sampling Design	\$ 7,500	\$ 2,250	\$ 2,250	\$ 1,875	\$ 1,125
Specify Data Collection Procedure/Collect Data	\$112,500	\$ 33,750	\$ 33,750	\$ 28,125	\$ 16,875
Data Analysis	\$ 65,000	\$ 19,500	\$ 19,500	\$ 16,250	\$ 9,750
Prepare Draft Report	\$ 20,000	\$ 6,000	\$ 6,000	\$ 5,000	\$ 3,000
Prepare Final Report	\$ 7,500	\$ 2,250	\$ 2,250	\$ 1,875	\$ 1,125
Project Management & Reporting	\$ 15,000	\$ 4,500	\$ 4,500	\$ 3,750	\$ 2,250
Total Costs	\$250,000	\$ 75,000	\$ 75,000	\$ 62,500	\$ 37,500

Contractor Selection Process

A solicitation for a consultant shall be made using a competitive bid process. The Joint Utilities will work closely with the CPUC in developing the RFP and the scoring criteria for the bids received. The key factors by which the proposals will be judged include, but are not limited to, the following criteria:

1. Soundness, thoroughness, and practicality of the proposed approach in meeting the objectives and issues described in the RFP;
2. Experience of key personnel in successfully completing similar evaluations;
3. Staffing plan and time allocation for the proposed work scope;
4. Quality of the proposal; and
5. Bid amount.

Attachment 3
SDG&E Advice Letter 2054-E/1829-G
Impact Evaluation of the 2009 Low Income Energy Efficiency Program

Joint Utility Study (PG&E, SCE, SDG&E, SoCalGas)

California Public Utilities Commission (Commission) Decision (D.) 08-11-031 directs PG&E, SCE, SDG&E, and SoCalGas (the Joint Utilities) to conduct an impact study of the 2009 Low Income Energy Efficiency (LIEE) program.

Ordering Paragraph 78 of D.08-11-031 directs the Joint Utilities to expand on the study descriptions provided in their Applications to include the following new materials:

- A timeline: projected start and finish dates, reporting dates, and tentative final report date;
- Projected breakdown of budgets: Categories displaying material costs, administration, data collection and analysis, reporting costs, contractor fees (when applicable), should be included along with a brief narrative paragraph explaining the breakdown; and
- Specification of Contractor: For Programmatic M&E Studies – provide a brief narrative of selection process for the chosen contractor.

Herein, the Joint Utilities have expanded on the LIEE Impact Evaluation description to provide the new information requested by the Commission.

Study Objectives

The Impact Evaluation will estimate first year electric and gas savings by measure group, utility, housing type and other relevant dimensions. The Joint Utilities will obtain and utilize these updated savings estimates for inclusion in their 2012-14 budget applications. Since 2009 is the first year of the three year cycle's increased focus on energy savings via targeted segmentation, threshold criteria and related energy savings strategies, the study will be designed with these strategic initiatives in mind.¹

¹ This study may support the Process Evaluation's deeper examination of these 2009-2011 changes.

Study Approach

The study will be performed in accordance with the California Energy Efficiency Evaluation Protocols (the Protocols).² The Protocols allow for various methodologies including regression analyses and engineering models. The RFP will invite bidders to propose one or more methodologies that follow the Protocols while not exceeding the study's timeline and budget constraints.

Previous impact evaluations of the LIEE Program, including the most recently completed PY2005 study, have used regression analysis to estimate savings. Regression analysis has been considered in the past as the best choice for the LIEE program, and will likely be a key element for the 2009 study. Examining low income customers' energy consumption before and after measure installation is a relatively inexpensive and direct method of assessing program performance. While cost advantages are strong compared to some other methods, there may be a problem estimating measure-level savings for measures with relatively low installations.

In addition, twelve months of post-installation data are typically required for a billing analysis such as this and, given the deadline for this study, that may be difficult to fit into the study timeline. The impact analysis timeline is critical in order to meet deadlines specified by D.08-11-031 for using impact results in the Joint Utilities' 2012-2014 LIEE Program Applications. The RFP will specify that final results be provided by March of 2011. One possibility for completing a billing analysis within this compressed timeline could include a three-step approach. In the first step, to occur as soon as possible upon commencement of the contract, the Consultant will deliver a complete data request to the Joint Utilities. The Joint Utilities will then make it a priority to collect and deliver the data available at that time. In the second step, to occur in 2009, the Consultant will construct the model and run it with the preliminary data. During this exercise, any obstacles with the data or the model should become apparent. In the third step, to occur early in the fourth quarter of 2010, the Joint Utilities will deliver the final data set and the Consultant will conduct the final analysis.

The study is expected to build on the recent 2005 evaluation, which featured measure grouping to facilitate data requirements and data analysis and examined the relationship between usage and savings. Being mindful of the Commission's focus on customer segmentation as a program strategy, we will be interested in bidders who can demonstrate an analytical ability to tie segmentation schemas into the 2009 evaluation. Some potential segments include consumption level, energy insecurity, geography, language or other delineations available from recent studies such as the Needs Assessment or the 2005 Impact Evaluation. It is expected that the study may not only identify relevant

² California Energy Efficiency Evaluation Protocols: Technical, Methodological and Reporting Requirements for Evaluation Professionals, April 2006. Available at <http://www.calmac.org>.

segments but may also provide savings estimates by these segments for at least planning purposes.³

In summary, we expect the 2009 study’s methodology to follow and build upon recent impact evaluations of the LIEE program. We also expect the bidders to navigate the shortened timeframe with creative methodological suggestions while also guiding the study toward recent Commission policy directives regarding customer segmentation as a strategy for achieving lasting energy and demand savings for the LIEE program.

Project Timeline

Specific deliverable dates and tasks will be determined upon contracting with the winning bidder. This said, in order to meet the planning schedule for the 2012-2014 program cycle, the timeline for the study has a fixed endpoint to support the program design process for 2012-2014. Table 1 presents a suggested timeline for the major components of the study.

Table 1: Suggested Timeline for Impact Study

Item	Date
Release of RFP	January 2009
Selection of Consultant and Commencement of Contract	February 2009
Final Research Plan and Sampling Strategy	April 2009
Preliminary Data Collection and Analysis	2009 to 2010
Final Data Collection and Analysis	Last quarter 2010
Draft Results and Discussion	January 2011
Final Results and Report	March 2011

Project Budget Guidelines

The project budget will be determined by the winning proposal. For preliminary planning purposes, however, some general guidelines are provided in Table 2.

³ One strategy would be to provide overall averages across segments for reporting at high levels of precision but to provide segment level savings for planning and targeting purposes at lower precision levels to keep costs and timelines reasonable.

Table 2: Guidelines for Impact Study Budget

Study Task	Total Study Cost	PG&E Cost (30%)	SCE Cost (30%)	SoCalGas Cost (25%)	SDG&E Cost (15%)
Project Initiation	\$18,000	\$5,400	\$5,400	\$4,500	\$2,700
Develop Research Plan	\$36,000	\$10,800	\$10,800	\$9,000	\$5,400
Develop Sampling Design	\$18,000	\$5,400	\$5,400	\$4,500	\$2,700
Specify Data Collection Procedure/Collect Data	\$270,000	\$81,000	\$81,000	\$67,500	\$40,500
Data Analysis	\$156,000	\$46,800	\$46,800	\$39,000	\$23,400
Prepare Draft Report	\$48,000	\$14,400	\$14,400	\$12,000	\$7,200
Prepare Final Report	\$18,000	\$5,400	\$5,400	\$4,500	\$2,700
Project Management & Reporting	\$36,000	\$10,800	\$10,800	\$9,000	\$5,400
Total Costs	\$600,000	\$180,000	\$180,000	\$150,000	\$90,000

Contractor Selection Process

A solicitation for a consultant shall be made using a competitive bid process. The Joint Utilities will work closely with the CPUC in developing the RFP and the scoring criteria for the bids received. The key factors by which the proposals will be judged include, but are not limited to, the following criteria:

1. Soundness, thoroughness, and practicality of the proposed approach in meeting the objectives and issues described in the RFP;
2. Experience of key personnel in successfully completing similar evaluations;
3. Staffing plan and time allocation for the proposed work scope;
4. Quality of the proposal; and
5. Bid amount.

Attachment 4
SDG&E Advice Letter 2054-E/1829-G
Refrigerator Degradation/Effective Useful Life (EUL) Study

Joint Utility Study (PG&E, SCE, SDG&E)

California Public Utilities Commission (Commission) Decision (D.) 08-11-031 directs PG&E, SCE, and SDG&E (the Joint Utilities) to conduct a Refrigerator Degradation Study for the Low Income Energy Efficiency (LIEE) program.

Ordering Paragraph 78 of D.08-11-031 directs the Joint Utilities to expand on the study descriptions provided in their Applications to include the following new materials:

- A timeline: projected start and finish dates, reporting dates, and tentative final report date;
- Projected breakdown of budgets: Categories displaying material costs, administration, data collection and analysis, reporting costs, contractor fees (when applicable), should be included along with a brief narrative paragraph explaining the breakdown; and
- Specification of Contractor: For Programmatic M&E Studies – provide a brief narrative of selection process for the chosen contractor.

Herein, the Joint Utilities have expanded on the Refrigerator Degradation Study description to provide the new information requested by the Commission.

Study Objectives

The central goal of the study will be to determine which, if any, alternate refrigerator replacement criteria lead to maximum, cost effective energy and demand savings for the LIEE program. Specifically, the Joint Utilities are looking for a criterion for refrigerator replacement in the form of either a date at which manufacturer and technological changes in efficiency occurred, or a determined age of refrigerators to be replaced.

Typically, appliance replacement is based on the effective useful life (EUL) and degradation of measures, from which we determine at what stage of their lifecycle, it becomes cost-effective to replace them to receive the most energy savings benefits. According to DEER, the EUL for refrigerators is 18 years, so their most cost effective replacement age should be sometime at or before 18 years. Currently, refrigerators are eligible for replacement by a new energy efficient refrigerator in the LIEE program if they are manufactured before 1993. The reason for this is that in 1993, new refrigerator efficiency standards were implemented making post-1993 refrigerators much more efficient than any pre-1993 refrigerator. However, since a pre-1993 refrigerator is already at least 17 years old, it is time to determine either an appropriate age for

refrigerator replacement, or whether to determine refrigerator replacement based on new efficiency standards that have been adopted.

A preliminary analysis conducted for SCE found that in 2009, roughly 9-12 percent of low income households in SCE's service territory (122,000 to 163,000 households) will have "pre-1993" refrigerators based on crude Needs Assessment (HENS) and RASS-based analysis. This analysis indicates a fairly strong case for a return to a cutoff based on refrigerator age (such as 10 or 16 years, for example), in lieu of a standards vintage (pre-1993) approach.¹

In short, the pre-1993 refrigerator replacement market is already saturated. The Joint Utilities believe energy efficient refrigerators are still one of the most cost effective, energy-saving measures in the LIEE program. This study will update refrigerator replacement criteria to garner new, significant and cost effective energy savings for the LIEE program.

Study Approach

Specific strategies will be recommended by the successful bidder. However, the Joint Utilities anticipate similar data collection activities as were undertaken to support the degradation research in KEMA's *2003 EM&V RARP Study: Verification, Degradation & Market Potential Analysis*. That study collected multiple sources of refrigerator data, primarily from earlier RARP programs in California, CEC-supplied manufacturer ratings data and Association of Household Appliance Manufacturer data. The study is expected to include a literature review of relevant studies and reports.² In addition to secondary data, primary data collection via onsite or surveys may be required. We expect significant effort to be involved in the matching and verification of these various data sources.

¹ There are potentially 300,000 to 350,000 primary refrigerators in SCE low income households that will be in the 10-16 year age group in 2009. These numbers are in contrast to the 122,000 to 163,000 households with appliances that are pre-1993, and which will of course involve increasing search-and-verification costs as time goes on and the "pot" diminishes due to both discards and program activity (mention increasing fraction of low consuming manual defrosts).

² The literature review may include some of the following: *2003 EM&V RARP Study: Verification, Degradation & Market Potential Analysis* (KEMA, Inc. December 2004); *Residential Refrigerator Recycling Ninth Year Retention Study* (KEMA, Inc. July 2004.); *Dual Metering Study to Support 2003 EM&V Of Statewide Residential Appliance Recycling Program* (ADM Associates, Inc. September 2004.); *Persistence Study of Southern California Edison's 1994 through 1997 Appliance Recycling Programs* (Xenergy Consulting, Inc. February 1999.); *Impact Evaluation of the Spare Refrigerator Recycling Program Final Report* (Xenergy Consulting, Inc. April 1998.) ; *Athens Research Working Paper Refrigerator UEC Vintage, Age, and Other Effects: Implications for the "Pre-1993" Standards Vintage vs. a Return to an Age-based Cutoff for Refrigerator Replacement in LIEE* (Athens Research, April 2008.) ; *Measurement and Evaluation Study of 2002 Statewide Residential Appliance Recycling Program, Final Report* (KEMA-Xenergy, February 2004.) ; *Pacific Gas & Electric Company Refrigerator Metering, Part I: Energy Consumption Comparison* (Proctor Engineering Group, September 1994.); *Pacific Gas & Electric Company Refrigerator Metering, Part II: Costing Period Study* (Proctor Engineering Group, September 1994.) ; *Refrigerator/Freezer UEC Estimation, 1996 ARCA/SCE Turn-In Program* (Athens Research, May 1998.)

Specific analysis techniques will be developed and proposed by the successful bidder. Our review of related studies suggests that the focus of statistical analysis will be on the relationship among appliance age and type, housing type, and location on energy consumption and how that changes over time. Building on recent work that suggests that characteristics other than age also play important role in UEC³ degradation, we will ensure that variables peculiar or salient in low income housing are given proper consideration.⁴

We expect regression analysis to feature in discerning relationships amongst variables of interest and in helping define vintage boundaries that maximize expected program savings. Again, the specifics of data analysis will be determined once a vendor has been awarded the contract. This said, a major goal will be to develop a model that expresses refrigerator UEC as a function of age as well as some of the other variables of interest noted above. Such a model should facilitate the identification of vintage boundaries that maximize program savings.

Project Timeline

Specific deliverable dates and tasks will be determined upon contracting with the winning bidder. Table 1 presents a suggested timeline for the major components of the study.

Table 1: Suggested Timeline for Refrigerator Study

Item	Date
Release of RFP	March 2009
Selection of Consultant and Commencement of Contract	April 2009
Final Research Plan and Sampling Strategy	May 2009
Literature Review	July 2009
Data Collection and Analysis	August 2009 – April 2010
Deliver Final Report	May 2010

Project Budget Guidelines

The project budget will be determined by the winning proposal. For preliminary planning purposes, however, some general guidelines are provided in Table 2.

³ Unit of Energy Consumption

⁴ 2003 EM&V RARP Study, p. 4-10-4-11.

Table 2: Guidelines for Refrigerator Study Budget

Study Task	Total Study Cost	PG&E Cost (33%)	SCE Cost (33%)	SDG&E Cost (33%)
Project Initiation	\$6,000	\$2,000	\$2,000	\$2,000
Develop Research Plan	\$12,000	\$4,000	\$4,000	\$4,000
Develop Sampling Design	\$6,000	\$2,000	\$2,000	\$2,000
Specify Data Collection Procedure/Collect Data	\$90,000	\$30,000	\$30,000	\$30,000
Data Analysis	\$52,000	\$17,333	\$17,333	\$17,333
Prepare Draft Report	\$16,000	\$5,333	\$5,333	\$5,333
Prepare Final Report	\$6,000	\$2,000	\$2,000	\$2,000
Project Management & Reporting	\$12,000	\$4,000	\$4,000	\$4,000
Total Costs	\$200,000	\$66,667	\$66,667	\$66,667

Contractor Selection Process

The Refrigerator study is not a programmatic M&E study, and discussion of the contractor selection process is therefore not required in this study implementation plan. However, the Joint Utilities currently anticipate using a bid process to select and hire a consultant to conduct this study. The key factors by which the proposals will be judged include, but are not limited to, the following criteria:

1. Soundness, thoroughness, and practicality of the proposed approach in meeting the objectives and issues described in the RFP;
2. Experience of key personnel in successfully completing similar evaluations;
3. Staffing plan and time allocation for the proposed work scope;
4. Quality of the proposal; and
5. Bid amount.

Attachment 5

SDG&E – Advice Letter 2054-E/1829-G

In-Home Display Pilot

California Public Utilities Commission (Commission) Decision (D.) 08-11-031 directs the investor-owned utilities (IOUs) to expand upon the Program Implementation Plans (PIPs) provided in the attachments to their respective Applications. Specifically, Ordering Paragraph 71 of D.08-11-031 directs the IOUs to file a Tier 2 compliance Advice Letter expanding the PIPs provided in their 2009 through 2011 budget applications prior to the start of each pilot. The expanded materials shall include:

- a. A timeline: Projected start and finish dates, report dates, assessment timeline and final assessment date;
- b. Projected breakdown of budgets: Categories displaying material costs, administration, data collection and analysis, reporting costs, etc., should be included along with a brief paragraph explaining the breakdown;
- c. Estimated Energy Savings – (Measure Pilots; Measure pilots involve trials of new technology and/or energy efficiency hardware on a small scale, with the intention of expanding the measure to the entire utility and/or sharing results with other utilities if proven successful);
- d. Estimated Resources Leveraged/Saved (Non-Measure Pilots; Non-Measure pilots consist of partnership, leveraging, education, training and/or other types of trial initiatives that involve increased leveraging or more efficient use of utility resources in execution of its low income programs);
- e. Combined estimate of Energy Savings/Shared Resources (Combined Pilots; Combined pilots have elements of both measure and non-measure pilots);
- f. Overview of Pilot Evaluation Plan (PE): The PEP should identify target data for capture, specify data capture activities, state how the IOU will provide results for estimated energy savings or resources leveraged/saved, give relevant dates and deadlines, and set forth a definition of success for the pilot.

Herein, SDG&E has expanded on the In-Home Display Pilot PIP to provide the new information requested by the Commission.

A: Project Timeline

Table 1 below presents the anticipated timeframe for the major components of the pilot. Specific deliverable dates and tasks will be determined after mid-2009 as we move closer to the pilot 2010 implementation date.

Table 1: Anticipated Timeline

Item	Date
Assessment of Technology	Jul – Sep 2009
Identify Homes for Installation	Oct-Nov 2009
Purchase Display (Equipment)	Nov-Dec 2009
Pilot Implementation - Installation of Display (Equipment)	Jan 2010
Pilot Implementation Completed	Dec 2010
Data Collection and Analysis	Jan 2011
Evaluate Pilot	Jun 2011

B. Projected Breakdown of Budget

Table 2 below presents the anticipated breakdown of the budget. For preliminary planning purposes, however, some general budget guidelines are provided.

Table 2: Budget Guidelines

Task	Total Cost
Equipment Cost	\$100,000
Installation Cost	\$10,000
Collateral Material	\$5,000
Data Collection and Analysis Cost	\$5,000
Evaluation Cost	\$25,000
Total Costs	\$145,000

C. Estimated Energy Savings

There have been no studies or analyses to date to estimate the energy savings associated with this measure. As this is a pilot, we will do a focused study using the 300 installations planned for program year 2010 to estimate energy savings as well as changes in customer behavior and awareness as a result of using the device.

D. Estimated Resources Leveraged/Saved

SDG&E plans to leverage its resources at every opportunity that can be identified, however at this time, SDG&E is not aware of any leveraging opportunities for this pilot.

E. Combined Estimate of Energy Savings/Shared Resources

The projected energy savings for this pilot is not being combined with any other program element.

F. Overview of Pilot Evaluation Plan

An overview of the pilot evaluation plan will be made available after SDG&E selects the most up-to-date technology to meet the needs of the pilot program.

SDG&E will look at available technologies for the In-Home Displays that are available in the market prior to launching the pilot to determine which of the technologies meet the pilot criteria and will be easy for income qualified customers to use.

SDG&E will work with its Smart Meter group to leverage with them on both economical feasibility and readily available technology within the cost model.

The planning for this pilot will begin months before the actual launch in order to ensure due diligence on the selected technology and receive a competitive price. The market for the technology continues to evolve and SDG&E will begin the research to evaluate the pilot products as it is currently difficult to speculate on what technology SDG&E will ultimately choose for this pilot.

Attachment 6

SDG&E Advice Letter 2054-E/1829-G

Programmable Communicating Thermostat Pilot

California Public Utilities Commission (Commission) Decision (D.) 08-11-031 directs the investor-owned utilities (IOUs) to expand upon the Program Implementation Plans (PIPs) provided in the attachments to their respective Applications. Specifically, Ordering Paragraph 71 of D.08-11-031 directs the IOUs to file a Tier 2 compliance Advice Letter expanding the PIPs provided in their 2009 through 2011 budget applications prior to the start of each pilot. The expanded materials shall include:

- a. A timeline: Projected start and finish dates, report dates, assessment timeline and final assessment date;
- b. Projected breakdown of budgets: Categories displaying material costs, administration, data collection and analysis, reporting costs, etc., should be included along with a brief paragraph explaining the breakdown;
- c. Estimated Energy Savings – (Measure Pilots; Measure pilots involve trials of new technology and/or energy efficiency hardware on a small scale, with the intention of expanding the measure to the entire utility and/or sharing results with other utilities if proven successful);
- d. Estimated Resources Leveraged/Saved (Non-Measure Pilots; Non-Measure pilots consist of partnership, leveraging, education, training and/or other types of trial initiatives that involve increased leveraging or more efficient use of utility resources in execution of its low income programs);
- e. Combined estimate of Energy Savings/Shared Resources (Combined Pilots; Combined pilots have elements of both measure and non-measure pilots);
- f. Overview of Pilot Evaluation Plan (PE): The PEP should identify target data for capture, specify data capture activities, state how the IOU will provide results for estimated energy savings or resources leveraged/saved, give relevant dates and deadlines, and set forth a definition of success for the pilot.

Herein, SDG&E has expanded on the Programmable Communicating Thermostat pilot PIP to provide the new information requested by the Commission.

A: Project Timeline

Table 1 below presents the anticipated timeframe for the major components of the pilot. Specific deliverable dates and tasks will be determined after mid-2010 as we move closer to the pilot 2011 implementation date.

Table 1: Anticipated Timeline

Item	Date
Assessment of Technology	Jul – Sep 2010
Identify Homes for Installation	Oct-Nov 2010
Purchase Display (Equipment)	Nov-Dec 2010
Pilot Implementation - Installation of Display (Equipment)	Jan 2011
Pilot Implementation Completed	Dec 2011
Data Collection and Analysis	Jan 2012
Evaluate Pilot	Jun 2012

B. Projected Breakdown of Budget

Table 2 below presents the anticipated breakdown of the budget. For preliminary planning purposes, however, some general budget guidelines are provided.

Table 2: Budget Guidelines

Task	Total Cost
Equipment Cost	\$80,000
Installation Cost	\$50,000
Collateral Material	\$5,000
Data Collection and Analysis Cost	\$5,000
Evaluation Cost	\$30,000
Maintenance & Service Calls	\$60,000
Total Costs	\$230,000

C. Estimated Energy Savings

There have been no studies or analyses to date to estimate the energy savings associated with this measure. As this is a pilot, we will do a focused study using the 250 installations planned for program year 2011 to estimate energy and demand savings.

D. Estimated Resources Leveraged/Saved

SDG&E plans to leverage its resources at every opportunity that can be identified, however at this time, SDG&E is not aware of any leveraging opportunities for this pilot.

E. Combined Estimate of Energy Savings/Shared Resources

The projected energy savings for this pilot is not being combined with any other program element.

F. Overview of Pilot Evaluation Plan

An overview of the pilot evaluation plan will be made available after SDG&E selects the most up-to-date technology to meet the needs of the pilot program.

SDG&E will look at available technologies for the Programmable Communicating Thermostat that are available in the market prior to launching the pilot to determine which of the technologies meet the pilot criteria and will be easy for income qualified customers to use.

SDG&E will work with its Smart Meter group to leverage with them on both economical feasibility and readily available technology within the cost model.

The planning for this pilot will begin months before the actual launch in order to ensure due diligence on the selected technology and receive a competitive price. The market for the technology continues to evolve and SDG&E will begin the research to evaluate the pilot products as it is currently difficult to speculate on what technology SDG&E will ultimately choose for this pilot.