

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



February 16, 2010

Advice Letter 3083-G/3599-E

Brian Cherry
Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street Mail Code B20C
P.O. Box 770000
San Francisco, CA 94177

Subject: Energy Division Disposition on Above Referenced Advice Letter

Dear Mr. Cherry:

Advice Letter 3083-G/3599-E is denied effective February 16, 2010.

While Energy Division does not necessarily disagree with the merits of the proposal for evaluation, measurement, and valuation as described in the advice letter, the proposal does not represent a pilot program proposal and is more specifically identified as an EM&V plan. Currently a process for submitting proposed EM&V plans is being considered within proceeding A.08-07-021. Once this process is adopted, the EM&V plan included in the above referenced advice letter should be submitted for consideration within that process.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Julie A. Fitch'.

Julie A. Fitch, Director
Energy Division



Brian K. Cherry
Vice President
Regulatory Relations

77 Beale Street, Room 1087
San Francisco, CA 94105

Mailing Address
Mail Code B10C
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, CA 94177
Fax: 415.973.7226

January 22, 2010

Advice 3083-G/3599-E

(Pacific Gas and Electric Company ID U 39 M)

Public Utilities Commission of the State of California

**Subject: Workforce Education and Training Centergies Pilot Programs to
Develop Methods to Demonstrate Direct Energy Savings from
Existing Training Center Programs and Activities**

Pacific Gas and Electric Company (PG&E) hereby submits its Workforce Education and Training (WE&T) Centergies Pilot Programs Advice Letter (AL) to develop methods to demonstrate direct energy savings from three existing programs:

- Comprehensive Evaluation of Food Service Technology Center (FSTC);
- Residential HVAC Seminars; and
- Existing Building Commissioning (EBCx) Workshop Series Pilot Programs

This advice letter (AL) is being filed as part of PG&E's 2010-2012 Energy Efficiency (EE) Portfolio in compliance with Decision 09-09-047 (Decision), Ordering Paragraph (OP) 20 and other directives of the Decision.

Purpose

OP 20 of the EE Decision directed the investor-owned utilities (IOUs) to file an AL for all approved pilot programs within 120 days after the Decision's effective date. This AL submits for approval details for the Comprehensive Evaluation of FSTC, Residential HVAC Seminar, and EBCx Workshop Series Pilot Programs within PG&E's Centergies subprogram of the Statewide Workforce Education and Training Program.

These pilots align with the California Long Term Energy Efficiency Strategic Plan (Strategic Plan) goal of encouraging development and delivery of Education and Training programs that generate long-lasting and additional savings.

PG&E plans to design and develop pilot programs that will create a methodology for determining energy savings from the effects of PG&E's programs beyond just those where an incentive is provided. This pilot will focus on energy savings and customer behavior change resulting from programs and activities at the PG&E training centers: FSTC,

Energy Training Center-Stockton (ETC), and the Pacific Energy Center (PEC). The resulting beta method should, once refined, be transferable to other market segments.

Background

On July 21, 2008, PG&E and the other IOUs filed their 2009-2011 EE portfolio applications. On September 18, 2008, the California Public Utilities Commission (Commission) adopted the California Long-Term Energy Efficiency Strategic Plan (Strategic Plan) in D.08-09-040. Following Energy Division (ED) review of the portfolio applications, PG&E and the other IOUs amended their applications on March 2, 2009 in compliance with the Strategic Plan and as directed through a series of Commission rulings. Per D.09-05-037 issued May 21, 2009, PG&E and the other IOUs supplemented their portfolio requests on July 2, 2009. On September 24, 2009, the Commission issued D.09-09-047 adopting three-year portfolio budgets for 2010-2012 for each IOU. The adopted budget for PG&E is \$295 million less than the requested budget in its July 2, 2009 filing.

In accordance with OP 15 of the EE Decision, PG&E filed its compliance advice letter (AL) 3065-G/3562-E, which proposed, in part, detailed program budgets for the 2010-2012 EE portfolio. The budget for the pilot program is \$1.8 million of the total Centergies budget of \$34.1 million proposed in the compliance AL. On December 18, 2009, the Energy Division suspended the advice letter and stated that the suspension should not delay the program implementation effective January 1, 2010.

OP 20 directed the IOUs to file Pilot Program Advice Letters and specified the content required for these Advice Letters. The table below outlines the compliance items for the Centergies Pilot Program Advice Letter and indicates the section covering each compliance item.

Cite	Compliance Item	AL Section
OP 19	The following energy efficiency pilot program of [PG&E] are approved, subject to the requirements listed in ordering Paragraph 20: PG&E's ZNE Pilot Program, PG&E's Innovator Pilots, PG&E's Green Communities program...and WE&T Pilot Programs (Building Commissioning Workshop Series, Residential HVAC Seminars, Comprehensive Evaluation of Food Svc. Center, Green Pathways..)	
OP 20, Section 4.3	The utilities shall file an Advice Letter for each approved "Pilot Program," containing the following elements:	
	1. a specific statement of the concern, gap, or problem that the pilot seeks to address and the likelihood that the issue can be addressed cost-effectively through utility programs;	Program Descriptions
	2. whether and how the pilot will address a Strategic Plan goal or strategy and market transformation;	Program Descriptions
	3. specific goals, objectives and end points for the project;	Goals and Objectives

Cite	Compliance Item	AL Section
	4. new and innovative design, partnerships, concepts or measure mixes that have not yet been tested or employed;	Program Descriptions
	5. a clear budget and timeframe to complete the project and obtain results within a portfolio cycle-pilot projects should not be continuations of programs from previous portfolios;	• Budget • Goals and Objectives
	6. information on relevant baselines metrics or a plan to develop baseline information against which the project outcomes be measured;	Attachment A
	7. program performance metrics following the methodology outlines in OP11;	See OP 11
	8. methodologies to test the cost-effectiveness of the project;	Program Descriptions
	9. a proposed EM&V plan;	EM&V Plan
	10. a concrete strategy to identify and disseminate best practices and lessons learned from the pilot to all CA utilities and to transfer those practices to resource programs, as well as a schedule and plan to expand the pilot to utility and hopefully statewide usage.	Program Descriptions
OP 11	“[IOUs] shall jointly file a “Program Performance Metrics” Advice Letter requesting approval for their proposed logic models and metrics, with sections for each statewide program (and associated sub-programs) within 120 days of the effective date of this decision. In their filing, [IOUs] shall include a completed Program Performance Indicator Worksheet for each energy efficiency statewide program and associated sub-program (see Appendix 2). In addition, the Advice Letter filing shall include for each statewide program (and associated subprograms): - completed Program Performance Indicator Table as depicted in Appendix 2; - An updated program logic model as indicated in the Program Performance Indicator Worksheet; - A discussion to specifically address the extent to which each program and sub-program plan included an end game for each technology or practice that transforms building, purchasing, and use decisions to become either standard practice, or incorporated into minimum codes and standards;	Attachment A Attachment B

The following pilot programs components are described in this advice letter:

- Comprehensive Evaluation of Food Service Technology Center,
- Residential HVAC Seminar, and
- Existing Building Commissioning Workshop Series Pilot Programs

The Program Description, and Goals and Objectives for each of the three components are described separately while common elements such as budget, metrics, logic models and EM&V plan are described in common.

A. Comprehensive Evaluation of Food Service Technology Center

Program Description

The pilot will seek to understand and quantify the links between FSTC activities, changes in customer behavior, and energy savings by using two fundamentally different methods:

- In the first phase, the pilot will explore these links by using surveys and limited monitoring data. This will lay the groundwork for identifying the markers in energy data that illuminate these links.
- In its second phase, the pilot will create modeling techniques, which are based on findings from the first phase and extensive experience in modeling the energy savings impacts of codes and standards development to tease the relevant links out of data from other sources.

PG&E proposes to center this pilot on the food service sector for several reasons:

- Energy use in the food service sector is of enormous concern: PG&E has more than 38,000 commercial food services electric and/or gas accounts and food service buildings can be the most energy intensive of all commercial buildings. In fact, buildings in the food services industry consume roughly 2.5 times more energy per square foot than do other commercial buildings.¹
- Through more than two decades of intensive work and contact with the food service industry through the FSTC, PG&E has developed strong ties with in addition to a deep understanding of the food service customer. This understanding has led to an array of FSTC activities, which are discussed below that has created as-yet undocumented energy savings in this industry.
- In the food service industry, behavior changes that can result from education and training, such as turning off equipment in periods of low traffic and matching appliance heat levels to load, represent an immense untapped and undocumented opportunity for energy savings, which is an opportunity that dwarves the potential savings of equipment change-outs. Thus, the food service industry is an ideal living laboratory for exploring the potential energy savings benefits of behavior change in greater detail.

FSTC Activities to Promote Energy Efficiency

Established in 1986, PG&E's FSTC promotes the adoption of energy efficient equipment and practices in the food service industry through the following activities;

- Testing and certification of a range of commercial food service equipment, including equipment for cooking, preparation, and refrigeration;
- Educational outreach to market actors and customers in the form of workshops, seminars, trainings and speaker engagements;
- On-site surveys and design reviews at the facilities of PG&E customers;

¹ Consortium for Energy Efficiency, Commercial Kitchen Initiative Program Description, p. 1.

- Dissemination of FSTC research and information through study reports, the FSTC website, the publication of a trade newsletter for food service providers, contribution to trade publications such as Food Equipment Reports, and participation in trade associations; and
- Development of deemed incentive measures for specified energy efficient food service equipment.

While FSTC services do not directly add to the present savings goals, they most certainly enable and support the savings gained through the EE rebate and audit programs. To date, FSTC has lacked the resources to conduct the customer follow-up needed to determine the effectiveness of the contacts. Thus, California has an incomplete understanding of the energy benefits of the investment in this program and has no way of determining the possible benefits of creating similar programs for other industries. Through the work described below, the FSTC pilot seeks to fill this information void.

Project Description

Phase 1: Surveys and Limited On-Site Monitoring

The purpose of this phase is to use relatively low-cost, low-tech methods to gather and analyze data from customers and customer sites to understand and quantify the energy savings benefits of changes in customer behavior driven by FSTC activities.

Specifically, the FSTC pilot will track changes in facility energy use before and after facility representatives have attended an FSTC seminar, received an on-site survey or design review, or participated in the FSTC-supported NRA Conserve Green Recognition Program through the following steps:

- Document customer contacts;
- Conduct follow-up activities to determine whether actions were taken to affect the energy use of the facility; and
- At a specified percentage of sites, use monitoring and metering to determine the value of the savings

This phase will develop several deliverables:

- Database of customer contacts and follow-up tracking;
- Before and after energy use data from monitoring;
- Short guidelines on markers in survey results and energy monitoring data that indicate energy use reductions attributable to FSTC activities; and
- Estimated quantification of energy use reductions attributable to FSTC activities

Phase 2: Model for Analyzing Behavior-Driven Energy Savings Using Smart Meter Energy Profiles

The purpose of this task is to develop a model for estimating the energy impacts of FSTC customer behavior changes based on more detailed energy usage data availability.

SmartMeters™ are now being installed at millions of customer sites within PG&E's service area generating extensive customer energy use profiles. Eventually, this data will provide a fast, economic, and easy way to quantify the energy savings impacts driven by FSTC activities. However, the transition from raw data to meaningful estimates in this complex

area is challenging. It will require not only significant energy use modeling expertise, but also a thorough understanding of the markers in the data that can signal the effects of that can be attributed to FSTC efforts.

PG&E will draw on its extensive experience in modeling complex energy savings activities, which are developed through model codes and standards development impact and Phase 1 findings from the FSTC pilot to develop a beta model for quantifying the energy savings associated with program-driven changes in customer behavior. PG&E will then verify the model by comparing groups of “participants” to “non-participants” (a control group) through various qualitative and quantitative means and by comparing revenue meter data as well. After verification, PG&E will recommend follow-on work in the post-2012 Portfolio cycle to refine the model and apply it to behavior change in other market segments.

PG&E's Ability to Deliver Results Cost-Effectively

As discussed above, PG&E brings together multiple elements that allow cost-effective implementation of this pilot and delivery of results:

- Intimate knowledge of the food sector industry and the effects of customer behavior within this industry through more than two decades of running the FSTC;
- Deep and broad customer contacts;
- Monitoring ability;
- Experience teasing out markers from within dense energy data; and
- Extensive experience developing, verifying, and testing energy use modeling

Given this combination of characteristics, PG&E is uniquely positioned to successfully implement this pilot. PG&E will be able to begin implementing this project immediately, with minimal start-up or training costs. In contrast, other organizations, without PG&E's unique contacts, qualifications and experience, would likely require additional time and costs to develop the contacts and know-how needed to implement this program successfully.

Innovation and Alignment with Strategic Plan Goals

This pioneering study and model development activity is unprecedented and will greatly advance the understanding of ability to account for and the potential to affect customer behavior. Such understanding could have a significant impact on market transformation. Further, it addresses a concept that has not yet been explored: quantifying the links between energy-saving behavior change and utility energy efficiency programs.

This work directly aligns with the Strategic Plan Goal 1 in the area of Research and Technology: *Create Demand Pull for New Technologies*. It specifically aligns with Strategy 1-3 under this goal: *Enhance market intelligence and behavioral research activities related to energy efficiency technologies*.

Goals and Objectives

The goal of the pilot program is to develop a direct, attributable connection between FSTC activities and actual customer savings that can be used as a foundation for using revenue meter data for discerning program impacts in the short and long term. This connection will

help the Commission better account for energy savings in California and understand the cost-effectiveness of these types of services. Ultimately, this information could inform decisions about funding FSTC and other activities that promise similar energy savings.

To advance the above goal, the pilot program will meet these objectives:

- Work with the PEC and ETC to develop common data formats and input structures for non-rebate customer transactions. Implement documentation of all contacts with customers through seminars, outreach lab work, site surveys, consultations and other attributable transactions.
- Configure this contact documentation to be compatible with, and uploadable to, PG&E EE data support systems.
- Include in the documentation all pertinent details for the contact including activity descriptions and savings of potential measures for attribution.
- Develop a simple follow up, such as callback, system to determine the effect of the FSTC contact. This might be as simple as an email or phone call or be pursued as a survey or other opportunity.
- Research and develop methods for analyzing customer behavior-related energy savings attributable to FSTC activities.

This pilot will end with the development of a verified beta model to quantify the direct connection between FSTC activities and actual customer savings based on energy usage data. If successful, PG&E will make recommendations about the steps needed to refine the model and expand its use to other market segments, likely in the next program cycle.

B. Residential HVAC Seminar

Program Description

For most of PG&E's EE programs, the only means of establishing energy savings is through measuring customer participation via the rebate application process. However, many other components of EE improvement can lead to energy reduction. One such component is the education and training of industry partners to increase their awareness of EE technologies and their knowledge of correct application and implementation of these technologies. As these partners translate this awareness and knowledge into increased implementation of EE projects in customer homes, measurable energy reduction occurs.

The ETC has identified the need to establish a mechanism to promote and track the influence of its training on specific industry partners who do not directly participate in an incentive-related program. This mechanism will allow the ETC to optimize the subject matter and distribution of their training courses with EE technology updates, as well as to gain better understanding of the energy savings associated with these courses.

ETC will target various HVAC contractors, mechanics, and distributors to ensure education and training efforts are leveraged to influence the greatest number of customers seeking to utilize the workshop's topic technology and, therefore, result in the highest level of energy reduction from the available technology. Thus, this innovative new mechanism will provide much-needed feedback to advance the Strategic Plan Big Bold Goal of transforming the HVAC market.

Specifically, ETC will do the following:

- Offer two HVAC workshops (*Proper Procedures for Charging Air Conditioners and Heat Pumps* and *Title 24 HVAC System Change-Outs: Duct Testing Requirements for Residential and Small Business*) in different geographic areas throughout our service territory.
- Develop target attendee lists based on proximity to sessions being offered and extend workshop invitations partners on the list
- Develop a modified session evaluation sheet to capture the before and after impact on each attendee of the delivery of information the featured technology
- Conduct a 30-day follow-up on a minimum 15% sample to validate actual influence of the workshop on the attendee's implementation of the featured technology
- Based on that follow-up response, recalculate initial responses to reflect the actual impact of the session
- Develop a spreadsheet to quantify the total potential savings of each session and capture the savings attributable to the selected sessions during the pilot period
- Optimize courses based on findings

Based on experience, ETC expects to identify \$2,980,000 in avoided costs (\$1,860,000 in electric savings and \$1,120,000 in gas savings) from the 14 sessions offered. When compared to the pilot cost of \$200,000, the return on investment (ROI) is forecasted to result in 1490% deferred savings to cost.

The program team will implement the following strategy to identify and disseminate best practices and lessons learned from the pilot to all California utilities and transfer those practices to resource programs:

- Develop various strategies to target and market specific vendor segments that would have significant influence in reaching large quantities of customers for the specific technologies/installations addressed in courses.
- Report at the end of the pilot to the Commission on the successes and failures of strategies used to market these courses to various groups.
- Relay information on effectiveness of planning sessions; report on such factors as geographic locations and weather influences on attendance.
- Provide a pilot report at end of pilot period to the Commission on session statistics, including number of attendees, potential range of influence of audience, and savings expected from each session.
- Investigate other offerings that can demonstrate significant savings attributable to education and training sessions for other technologies, such as renewables, home performance, pool pumps, etc.

Goals and Objectives

The pilot aims to demonstrate the following actual savings over 14 sessions:

- 62 megawatt hours and 2,800,000 therm savings over the established measure life as identified in DEER studies on the subject technologies and after applying an 80% net to gross ratio. 80% value based on 2006 NTG ratio for prescriptive incentive.

The pilot will begin with the start of the 2010 program date after approval of this AL and extend to all related sessions conducted through December 15, 2010.

C. Existing Building Commissioning Workshop Series Pilot Programs

Program Description

For most of PG&E's EE programs, the only means of establishing energy savings is through measuring customer participation via the rebate application process. However, many other components of EE improvement can lead to energy reduction. One such component is the education and training of industry partners (building engineers, building operators, mechanical engineers) to identify energy savings possibilities and to make operational, controls, and/or equipment changes to their commercial buildings.

During the 2010-2012 program cycle, the PEC will explore and implement methods for identifying energy savings that result from its Existing Building Commissioning Workshop Series. This unprecedented program will document the energy saving and demand reduction achieved by a utility-managed training series. Quantifying the benefit of education has always been a challenge for utilities, since the implementation of energy-saving measures often occurs long after trainings are held and the necessary measurement and verification follow-up is difficult to define and quantify. Two factors enable measurement of the energy-saving benefit within this pilot program:

- The strategies students learn are immediately implementable.
- The trainings occur over a year-long period, allowing measuring the impact while the students are still attending the workshops.

Specifically, this pilot program will be applied to a year-long workshop series on commissioning existing buildings that meets once a month at the PEC. The workshop series will cover a tremendous amount of material, including an overview of the building commissioning process, building benchmarking, system diagrams, the use of data loggers and trend data, developing functional tests, application of measurement tools, data analysis, and system manuals. The series will also cover commissioning opportunities as they relate to air, hydronic, gas, and steam systems. The program will have 3 regular instructors and is limited to approximately 18 students who will attend all 12 sessions who have buildings that they can use to implement the skills that they are taught and who can report data and savings information to the PEC project manager.

The trainings will emphasize the application of principles learned to real-world situations. Each session will include an overview of fundamental concepts and will be reinforced with case-study data and example calculations. The trainings will also apply the concepts learned through interactive exercises and hands-on field work using the PEC as the test lab.

Students will be required to identify an outside facility where they can work with the operating staff to implement strategies they learned about while attending the workshop series. The students may benchmark their facility using Energy StarTM, collect trend data, set up dataloggers and perform functional tests on equipment. Any of these activities may lead to the recognition of energy-saving opportunities. As part of the trainings, students will be taught how to quantify the energy saved by measuring the energy use before and after any action is taken. Energy savings data is then collected from student projects for the current iteration (2008-2009) of the workshop series and will use this data to establish savings goals for the workshops held over the 2010-2012 funding period. The first full series for the 2010-2012 filing will begin in May 2010 and end April 2011.

This class and the associated pilot project will help to develop the methods to allow a portion of the portfolio of classes to claim energy savings that would not be claimed by other resource programs, thus supporting and not conflicting with other established resource programs.

The program team will implement the following strategy to identify and disseminate best practices and lessons learned from the pilot to all California utilities and transfer those practices to resource programs:

- Compile, organize, and summarize data collected by class participants.
- Relay information to the Commission and other California training centers' leadership teams on effectiveness of class sessions and methods being implemented.
- Provide monthly activity reports to the Commission on session statistics, including number of attendees, potential range of influence of audience, and savings expected from workshop series.
- Investigate other offerings that can demonstrate significant savings attributable to E&T sessions for other course offerings.
- Where possible and relevant, the project manager will present project at conferences in and beyond California.

Goals and Objectives

The program goals and objectives are as follows:

- Determine the energy savings from the May 2009 – April 2010 EBCx Workshop class participants.
- Refine exercises and course material as needed to improve potential to maximize energy savings strategies.
- Compile, organize, and summarize data from the May 2010 – April 2011 EBCx Workshop series.
- Write a report summarizing methodology and results from the EBCx Series.

Results from this pilot program will be reported by December 31, 2011.

Budget

FSTC	\$ 1,000,000
Residential HVAC Seminar	\$ 200,000
Existing Buildings Commissioning Workshop Series	\$ 200,000
Total	\$ 1,400,000

FSTC

Phase 1 will start after approval of this AL, be completed by the end of 2011, and will require an estimated budget of \$200,000.

Phase 2, which will be completed at the end of 2012, will require an estimated budget of \$800,000.

Residential HVAC Seminar

The Residential HVAC Seminar pilot will market the selected sessions to appropriate partners, monitor the evaluations, quantify savings, conduct follow-up inquiries, and track and report achievement. The expected budget for this pilot should not exceed \$200,000 and should be completed during 2010.

Existing Buildings Commissioning Workshop Series

The Existing Buildings Commissioning Workshop Series will be part of the PEC's portfolio of classes; hence there are no incremental costs for offering the series to interested participants. Incremental costs will occur in 2011 for follow-up with class participants to compile, organize, and summarize data collected by class participants. The expected budget for this pilot should not exceed \$200,000.

Metrics

Please refer to Attachment A for program performance metrics.

Logic Model

Please refer to Attachment B for program logic models.

EM&V Plan

PG&E proposes to develop specific research scopes of work and priorities, in accordance with the directives set forth in the upcoming Commission decision on EM&V issues and/or through collaboration between the IOUs and Energy Division. In the Decision, the Commission deferred resolution of various EM&V issues to a subsequent decision on EM&V. (D. 09-09-047, pp. 301-04 and OP 60) Among other things, the Decision deferred issues included a clarification of the respective EM&V roles and responsibilities for Energy Division and the IOUs, as well as the actual allocation of the EM&V budget. PG&E proposes further development of its EM&V plan upon Commission resolution of these pending issues in the upcoming EM&V decision.

Effective Date

PG&E is filing this advice letter as Tier 2 to be approved by **February 22, 2010**, which is 31 days from the filing date.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than **February 11, 2010** which is 20 days after the date of this filing. Protests should be mailed to:

CPUC Energy Division
Tariff Files, Room 4005
DMS Branch
505 Van Ness Avenue

January 22, 2010

San Francisco, California 94102

Facsimile: (415) 703-2200

E-mail: jnj@Commission.ca.gov and
mas@Commission.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest also should be sent via U.S. mail (and by facsimile and electronically, if possible) to PG&E at the address shown below on the same date it is mailed or delivered to the Commission:

Brian K. Cherry
Vice President, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-7226

E-mail: PGETariffs@pge.com

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list. Address changes to the General Order 96-B service list and all electronic approvals should be directed to email PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs>.



Vice President - Regulatory Relations

Attachments

Attachment A: Metrics and Performance Indicator

Attachment B: Logic Table

cc: Service List A.0-80-7021

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. **Pacific Gas and Electric Company (ID U39 M)**

Utility type:

☒ ELC

☒ GAS

☐ PLC

☐ HEAT

☐ WATER

Contact Person: Olivia Brown

Phone #: 415.973.9312

E-mail: oxb4@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric

GAS = Gas ☐

PLC = Pipeline

HEAT = Heat ☐

WATER = Water ☐

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: 3083-G/3599-E

Tier: 2

Subject of AL: Workforce Education and Training Centergies Pilot Programs to Develop Methods to Demonstrate Direct Energy Savings from Existing Training Center Programs and Activities

Keywords (choose from CPUC listing): Energy Efficiency, Compliance

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

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: D.09-09-047

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL: No

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: No

Confidential information will be made available to those who have executed a nondisclosure agreement: N/A

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: No

Resolution Required? ☐ Yes ☒ No

Requested effective date: February 22, 2010

No. of tariff sheets: N/A

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). N/A

Tariff schedules affected: N/A

Service affected and changes proposed: N/A

Protests, dispositions, 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

Tariff Files, Room 4005

DMS Branch

505 Van Ness Ave., San Francisco, CA 94102

jn@cpuc.ca.gov and mas@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Brian K. Cherry, Vice President, Regulatory Relations

77 Beale Street, Mail Code B10C

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

ADVICE 3083-G/3599-E

Attachment A:

Program Performance Metrics

Attachment A: Centergies Pilot Program Performance Metrics

Workforce Education & Training Centergies Pilot Programs

1. Include a list of the utility and program administrator staff directly involved in deriving the program performance indicator metric. Include their title and contact information.

Robert Marcial

- Telephone: (415) 972-5177
- E-mail: rxmu@pge.com

2. Describe each program performance indicator being proposed for this program. Indicate in a description for each, what type of performance indicator it is (see attached above). If the program indicator is being changed from an already approved program indicator indicate why the change is necessary. Provide additional analysis that adequately justifies the need to revise the metric as an attachment to this worksheet.

Proposed metric: Number of active participants in each program to date.
Baseline: Zero participants at program inception.

Proposed metric: Percent progress for each model on development of their respective energy-saving models.
Baseline: Models are 0% developed at program inception.

3. For each program performance metric being proposed, indicate why you have selected them including how the metric meets the SMART convention (Specific, Measurable, Actionable, Relevant, Timely)

- Specific: Provides a defined level of program progress
- Measurable: Results can be tracked by program staff
- Actionable: Interim actions can be taken to ensure workshops are held within a specified period of time and to ensure the model is developed on schedule.
- Relevant: It is direct measurement of program activities and deliverables
- Timely: Results can be reported on a quarterly basis

4. State the program mission. The program mission is the basic purpose of a program, its reason for existing, and the general means through which it will accomplish its purpose in view of overarching goals and objectives (CEESP, BBEES, CPUC EE Goals).

This is composed of three programs:

- Comprehensive Evaluation of Food Service Technology Center (FSTC)
The pilot will seek to understand and quantify the links between FSTC activities, customer behavior change, and energy savings by using two fundamentally different methods:

In the first phase, the pilot will explore these links by using surveys and limited monitoring data. This will lay the groundwork for identifying the markers in energy data that illuminate these links.

In its second phase, the pilot will create modeling techniques—based on findings from the first phase and extensive experience in modeling the energy savings impacts of codes and standards development—to tease the relevant links out of data from smart meters installed at customer sites.

- Residential HVAC Seminar

The Stockton Energy Training Center (ETC) has identified the need to establish a mechanism to promote and track the influence of its training on specific industry partners who do not directly participate in an incentive-related program. This mechanism will allow the ETC to optimize the subject matter and distribution of their training courses with EE technology updates, as well as to gain better understanding of the energy savings associated with these courses.

ETC will target various HVAC contractors, mechanics, and distributors to ensure the WE&T efforts are leveraged to influence the greatest number of customers seeking to utilize the workshop's topic technology and, therefore, result in the highest level of energy reduction from the available technology. Thus, this innovative new mechanism will provide much-needed feedback to advance the Strategic Plan Big Bold Goal of transforming the HVAC market.

- Existing Building Commissioning (EBCx) Workshop Series Pilot Program

During the 2010-2012 program cycle, the Pacific Energy Center will explore and implement methods for identifying energy savings that result from its Existing Building Commissioning (EBCx) Workshop Series. This unprecedented program will document the energy savings and demand reduction achieved by a utility-managed training series. Quantifying the benefit of education has always been a challenge for utilities, since the implementation of energy-saving measures often occurs long after trainings are held and the necessary measurement and verification follow-up is difficult to define and quantify.

5. Describe the program performance goals (both internal and external), standards, and/or benchmarks. Program goals should support the programs' overall mission and are general statements about the results to be produced by the program. If program goals are being revised from previous program goals indicate why the change is necessary providing additional analysis to justify the change.

CEESP Section 12 (Research & Technology) – Goal 1.3

Enhance market intelligence and behavioral research activities related to energy efficient technologies.

6. Describe the critical work processes, program requirements, and critical results desired (both internal and external) linked to promotion of the program mission and goals above.

CEESP Section 12 (Research & Technology) – Goal 1.3

PG&E plans to design and develop pilot programs that will create a beta methodology for attributing customer behavior change to energy savings. This pilot will focus on behavior change through programs and activities at the PG&E training centers—Food Service Technology Center (FSTC), Energy Training Center-Stockton (ETC), and the Pacific Energy Center (PEC). The resulting beta method should, once refined, be transferable to other market segments.

7. Describe how the proposed program performance metrics are a measure of the critical work processes or critical results identified above.

Since this program will enhance market intelligence and behavioral research, the number of participants and progress on model development are good measures for the critical work processes above.

8. Describe what the program objectives are. Program objectives are the specific milestones and targets to be achieved to which the proposed program performance metrics seek to measure. Program objectives should be chosen that promote accomplishment of the program goals and should meet the SMART convention described above. If the program objectives are being revised from previous program objectives indicate why the change is necessary. Provide additional analysis to justify this change.

Number of active participants in each program to date.

- Milestones to be determined

Percent progress for each model on development of their respective energy-saving models.

- Milestones to be determined

9. Describe how the metrics will be collected, what data source they will come from, and how they will be tracked and reported.

Data will come directly from utility program tracking database.

10. Attach a program logic model that graphically represents what has been described in this worksheet. Logic models should depict the flow between program activities, their outputs, and subsequent short term, intermediate, and long term outcomes as well as how program elements are linked and the influence of external influences. Proposed program performance indicators should be incorporated at the appropriate locations within the logic model indicating what program activities and outcomes within the model will be measured both internal and external to the program (see example above).

The program logic models are provided in Attachment B.

11. Include a completed Program Performance Indicator Table as an attachment to this worksheet (see example below).

See Table below

WE&T Centergies Pilot Program Performance Indicator Table

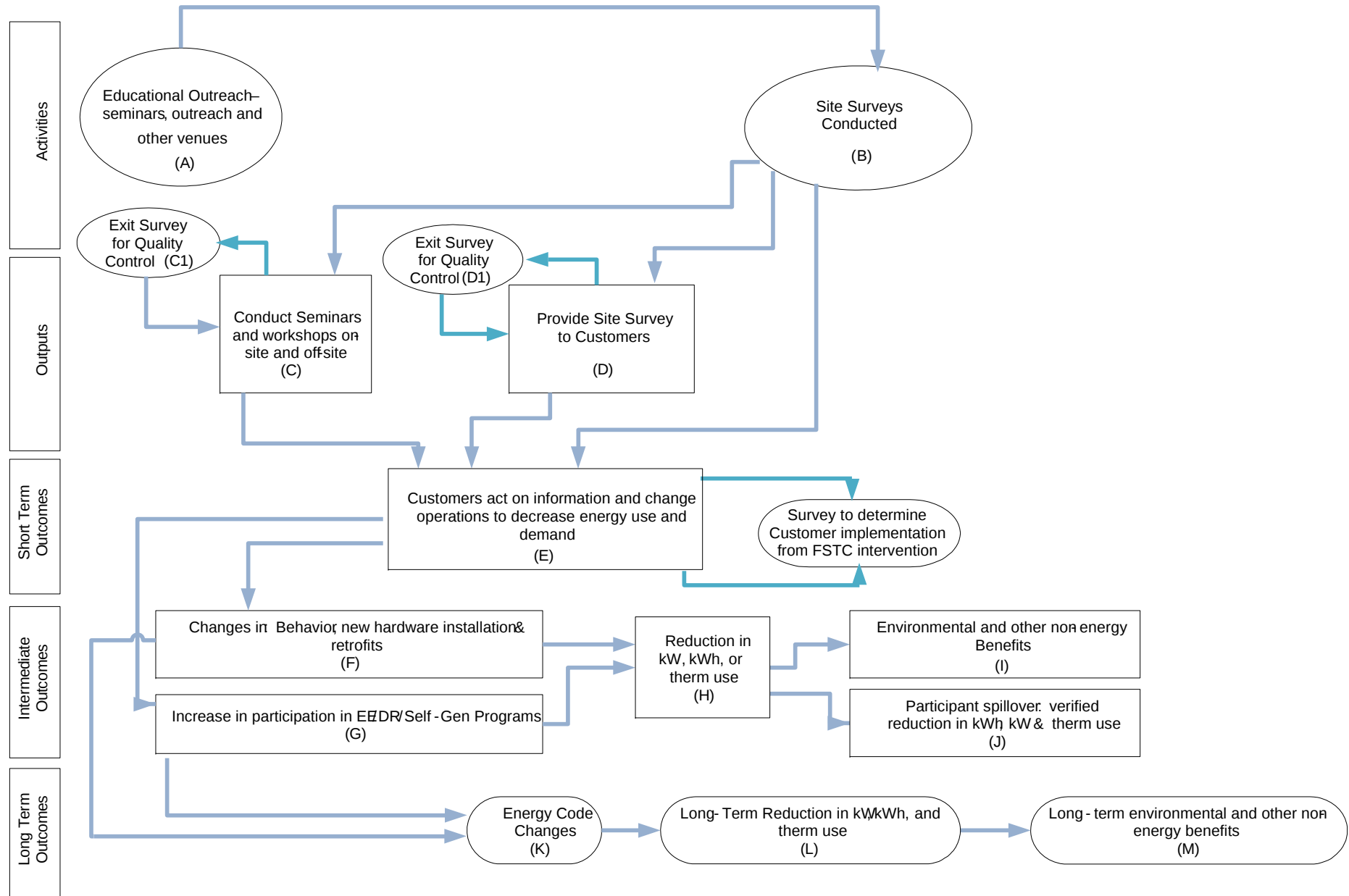
Program Sector	Program Name	Program #	IOU Program Goals	Strategic Planning Strategy	2010-2012 Strategic Milestones	IOU Proposed Metrics
WE&T Programs	WE&T Centergies Subprogram - Comprehensive Evaluation of Food Service Technology Center (FTSC) - Residential HVAC Seminars - Existing Building Commissioning (EBCx) Workshop Series Pilot Programs	FTSC - PGE210911 Res HVAC Seminars – PGE210912 EBCx Workshop Series – PGE210913	Strategic Plan Section 12 (Research & Technology) – Goal 1.3 Enhance market intelligence and behavioral research activities related to energy efficient technologies.	Strategic Plan Section 12 (Research & Technology) – Goal 1.3 PG&E plans to design and develop pilot programs that will create a beta methodology for attributing customer behavior change to energy savings. This pilot will focus on behavior change through programs and activities at the PG&E training centers—Food Service Technology Center (FSTC), Energy Training Center-Stockton (ETC), and the Pacific Energy Center (PEC). The resulting beta method should, once refined, be transferable to other market segments.	TBD	Number of active participants in each program to date. Percent progress for each model on development of their respective energy-saving models.

ADVICE 3083-G/3599-E

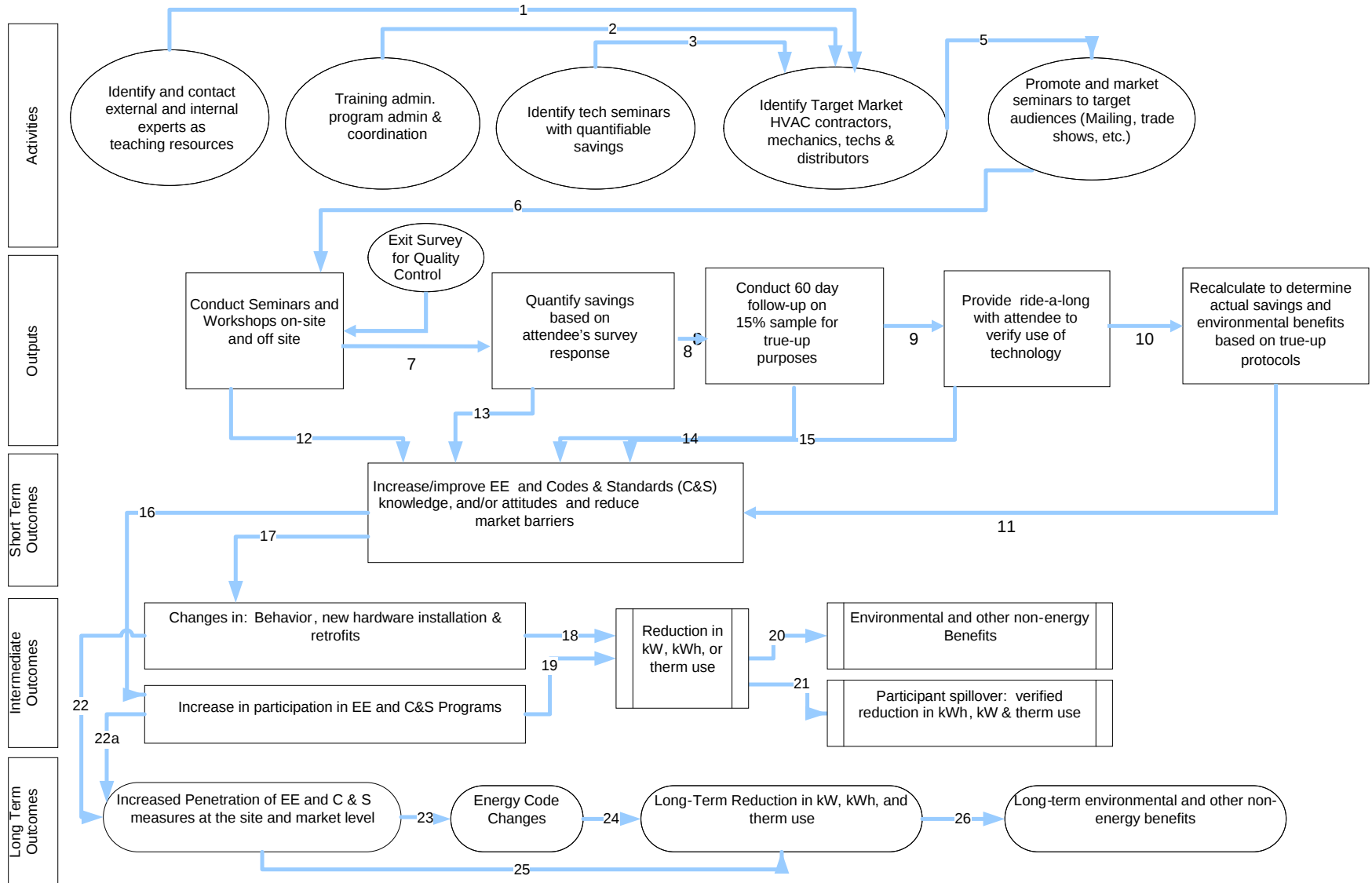
Attachment B:

Logic Diagram

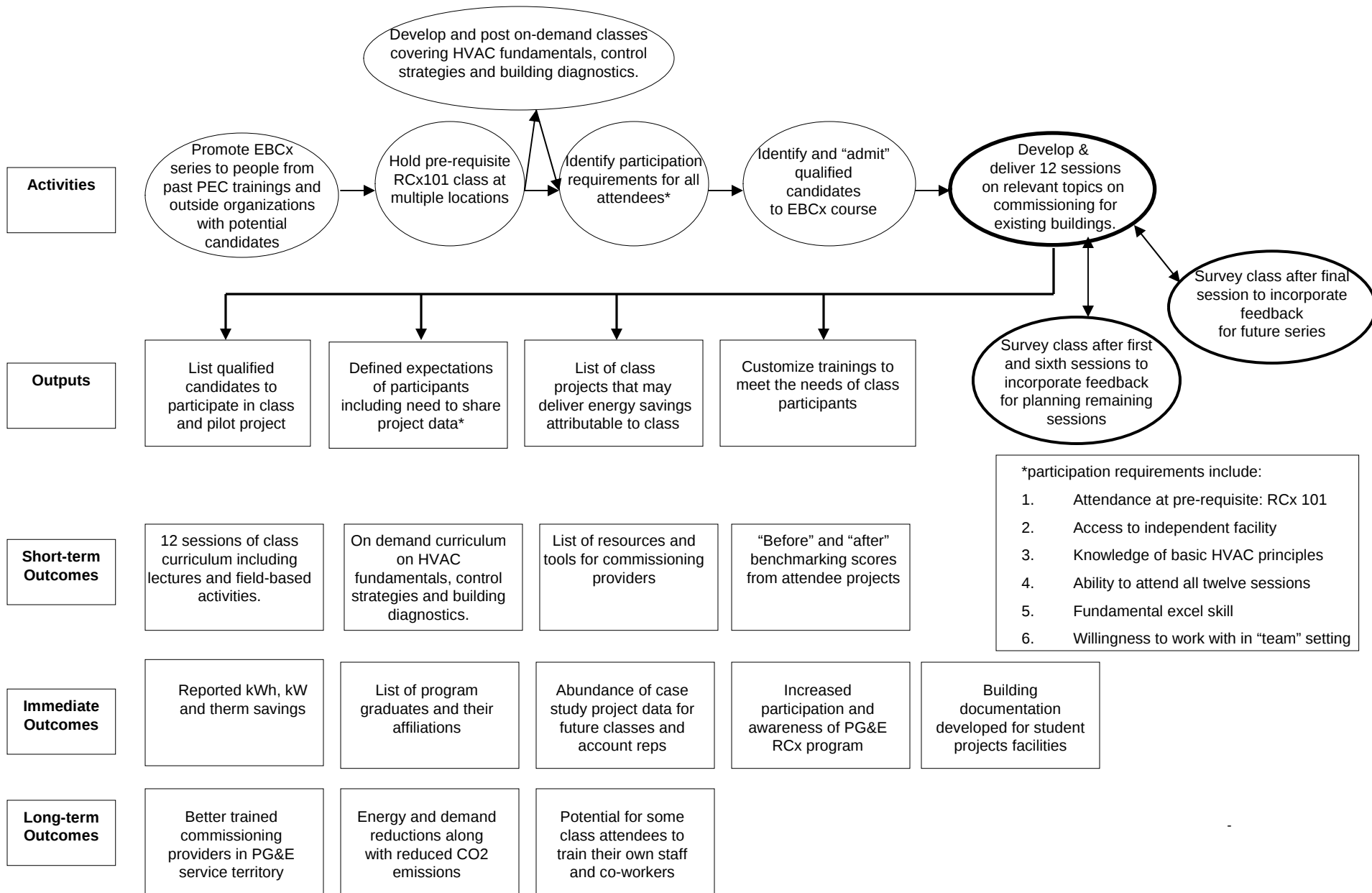
PY2010 – 2012 WE&T Centergies Pilot Program – Evaluation of PG&E’s FSTC - Logic Model



PY2010-2012 – WE&T Centergies Pilot Program – Residential HVAC Training Seminars - Logic Model



PY 2010-2012 - WE&T Centergies Pilot Pilot Existing Building Commissioning Workshop Series - Logic Model



**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

Alcantar & Kahl	Defense Energy Support Center	North Coast SolarResources
Ameresco	Department of Water Resources	Northern California Power Association
Anderson & Poole	Department of the Army	Occidental Energy Marketing, Inc.
Arizona Public Service Company	Dept of General Services	OnGrid Solar
BART	Division of Business Advisory Services	Praxair
BP Energy Company	Douglas & Liddell	R. W. Beck & Associates
Barkovich & Yap, Inc.	Douglass & Liddell	RCS, Inc.
Bartle Wells Associates	Downey & Brand	Recon Research
C & H Sugar Co.	Duke Energy	SCD Energy Solutions
CA Bldg Industry Association	Dutcher, John	SCE
CAISO	Ellison Schneider & Harris LLP	SMUD
CLECA Law Office	FPL Energy Project Management, Inc.	SPURR
CSC Energy Services	Foster Farms	Santa Fe Jets
California Cotton Ginners & Growers Assn	G. A. Krause & Assoc.	Seattle City Light
California Energy Commission	GLJ Publications	Sempra Utilities
	Goodin, MacBride, Squeri, Schlotz & Ritchie	Sierra Pacific Power Company
California League of Food Processors	Green Power Institute	
California Public Utilities Commission	Hanna & Morton	Silicon Valley Power
Calpine	Hitachi	Silo Energy LLC
Cameron McKenna	International Power Technology	Southern California Edison Company
Cardinal Cogen	Intestate Gas Services, Inc.	Sunshine Design
Casner, Steve	Los Angeles Dept of Water & Power	Sutherland, Asbill & Brennan
Chamberlain, Eric	Luce, Forward, Hamilton & Scripps LLP	Tabors Caramanis & Associates
Chevron Company	MBMC, Inc.	Tecogen, Inc.
Chris, King	MRW & Associates	Tiger Natural Gas, Inc.
City of Glendale	Manatt Phelps Phillips	Tioga Energy
City of Palo Alto	Matthew V. Brady & Associates	TransCanada
Clean Energy Fuels	McKenzie & Associates	Turlock Irrigation District
Coast Economic Consulting	Merced Irrigation District	U S Borax, Inc.
Commerce Energy	Mirant	United Cogen
Commercial Energy	Modesto Irrigation District	Utility Cost Management
Consumer Federation of California	Morgan Stanley	Utility Specialists
Crossborder Energy	Morrison & Foerster	Verizon
Davis Wright Tremaine LLP	New United Motor Mfg., Inc.	Wellhead Electric Company
		Western Manufactured Housing Communities Association (WMA)
Day Carter Murphy	Norris & Wong Associates	eMeter Corporation