

**PACIFIC GAS AND ELECTRIC COMPANY
2013-2014 ENERGY EFFICIENCY PORTFOLIO
LOCAL PROGRAM IMPLEMENTATION PLAN
INNOVATIVE DESIGNS FOR ENERGY EFFICIENCY
APPROACHES (IDEEA365)
THIRD PARTY PROGRAM**

**AMERESCO INTELLIGENT ENERGY EFFICIENCY PROGRAM
(IEEP)**

PGE210142

JULY 2014

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- 1) Sub-Program Name: IDEEA365 Ameresco Intelligent Energy Efficiency Program (IEEP)
- 2) Sub-Program ID number: PGE210142
- 3) Type of Sub-Program: Core Third Party Partnership
- 4) Market sector or segment that this sub-program is designed to serve:

- a. Residential
 - i. Including Low Income? Yes No
 - ii. Including Moderate Income? Yes No
 - iii. Including or specifically Multifamily buildings Yes No
 - iv. Including or specifically Rental units? Yes No

- b. Commercial. NAIC codes: 622110

Description of Customer Segment
622110 - Hospitals

- c. Industrial: 315xxx, 333249

Description of Customer Segment
315xxx - Plastics
333249 - Cement

- d. Agricultural: 311xxx, 312xxx

Description of Customer Segment
311xxx - Food & Beverages
312xxx - Beverages

- 5) This sub-program is primarily resource
 - e. Non-resource program Yes No
 - f. Resource acquisition program Yes No
 - g. Market Transformation Program Yes No

- 6) Primary intervention strategies
 - h. Upstream Yes No
 - i. Midstream Yes No
 - j. Downstream Yes No
 - k. Direct Install Yes No
 - l. Non Resource Yes No

- 7) Projected Sub-program Total Resource Cost (TRC) and Program Administrator Cost (PAC) TRC 1.47 PAC 1.74

8) 2013-2014 Sub-Program Budget

Table 1. 2013-2014 Sub-program Budget

Sub-Program ID Sub-Program Name	Total Administrative Cost	Total Marketing & Outreach	Direct Implementation (Customer Services)	Direct Implementation (Incentives & Rebates)	Total 2013-2014 Compliance Budget
PGE210142 Ameresco Intelligent Energy Efficiency Program (IEEP)	\$46,969	\$88,124	\$420,893	\$264,169	\$820,155

9) Sub-Program Description, Objectives and Theory

- a) **Sub-Program Description and Theory:** The Ameresco Intelligent Energy Efficiency Program (IPEEP) is based on the installation of a comprehensive energy management system that is enterprise-wide. This energy management system is known as xChangePoint and leads to dramatically reduced energy consumption. xChangePoint is a proven technology that will help PG&E’s customers to monitor performance and detect inefficiencies of individual industrial processes, and deliver ongoing energy savings by commissioning major energy uses and retrofitting inefficient equipment. xChangePoint was successfully installed at Coca Cola, Kraft Foods, Berkley Farms, and Boston Children’s Hospital and resulted in substantial energy savings.

Key program elements include:

- Assess and deploy real time data monitoring systems to key in on energy-using processes and patterns by connecting to existing metering points or by installation of new metering points as necessary. Points of measurement are designed to provide operational and equipment data at one-minute intervals for key performance indicators for where the majority of energy end uses exist in a given facility.
- Collect and transmit real time data to secure servers.
- Analyze real time data to identify operational inefficiencies through a dedicated energy analyst team. The assigned energy analyst will identify and implement energy efficiency improvements to the operation. Documenting energy savings is significantly enhanced by xChangePoint’s unique work flow process that is built into the software.
- Development of a customized Energy Action Plan for customers.
- Assistance in retrofit project development and implementation.
- Measurement and verification processes for installed measures and energy savings.

Once the metering and monitoring system is installed, it offers the following key benefits to customers:

1. Continuous identification and implementation of energy improvement projects through real-time data visible on an online, web-based portal.

2. By incorporating this innovative monitoring approach (i.e. sub-metering of individual systems and processes at industrial facility), the program substantially increases precision in identifying energy usage anomalies and measures that may potentially improve customers’ business bottom line.
3. Monthly reporting of Key Performance Indicators (KeyPIR report).
4. Tracking and reporting capabilities on energy budgets, emissions, energy improvements.
5. Actionable information of the highest quality that allows for quick and intelligible decision making on capital deployment.
6. Return on Investment - installation of xChangePoint will pay for itself in less than 24 months through implementation of low cost, operational strategies identified by energy analysts using real-time data.

The program’s turn-key solution allows industrial customers to obtain greater benefits at a lower than typical energy improvement project cost.

b) Sub-Program Energy and Demand Objectives:

Table 2. Projected Sub-Program Gross Energy and Demand Impacts, by Calendar Year

Program ID	Program Name	Program Year 2014		
		Gross kWh Savings	Gross kW Savings	Gross Therm Savings
PGE210142	Ameresco Intelligent Energy Efficiency Program (IEEP)	1,100,000	127	131,393

- c) **Program Non-Energy Objectives:** Key innovative methodology and innovation of the xChangePoint system combined with the real time data that leads to identification and implementation of retrofit and commissioning projects that substantially increase energy savings at customers’ facilities.
- d) **Cost Effectiveness/Market Need:** Larger commercial and industrial facilities that usually have energy management staff on board generally explore traditional offerings and opportunities for investing in energy efficiency. Ameresco IEEP offers a unique opportunity for identifying more precise potential energy savings and systematic improvements that could result in increased cost-effectiveness for program participants and utilities.

The program cost-effectiveness (TRC and PAC) was calculated by using the latest version of the E-3 Avoided Costs Calculator.

- e) **Measure Savings/Work Papers:** As the program uses calculated measures for customized projects, energy savings and data sources will vary depending on the project. Typically, calculations will be performed by engineering staff utilizing real-time data obtained from xChangePoint reports and analysis. Every calculated project will have a pre- and post-inspection to determine the actual energy savings.

No workpapers have been submitted for this program.

10) Program Implementation Details

a) **Timelines:**

Table 3: Milestones

Milestone	Date
Program kick-off	February, 2014
Distribute program materials, provide training and conduct presentations to the account managers and vendors communities	March – April, 2014
Customer enrollment and installation of xChangePoint	Q2, 2014
Project implementation and EM&V	Q3, 2014
Program Evaluation*	December, 2014

* Program closure is dependent on the performance evaluation results which may result in it continuing beyond 2014.

- b) **Geographic Scope:** The Ameresco IEEP program is offered throughout PG&E’s service territory.

c) **Program Administration**

Table 4: Program Administration of Program Components

Program Name	Program Component	Implemented by IOU Staff? (X = Yes)	Implemented by contractors to be selected by competitive bid process (if Yes then enter type of contractor/other market actor possibly used)	Implemented by contractors NOT selected by competitive bid process (list prime contractor and sub-contractor names)	Implemented by local government or other entity (X = Yes)
Ameresco IEEP	Contract execution	X			
	Program materials development		Ameresco		
	Program materials review and approval	X			
	Setting up tracking and reporting systems	X			

	Marketing and Program sale		Ameresco		
	Program leads and customer relationship management	X			
	Training and presentation to PG&E personnel		Ameresco		
	xChangePoint installation, data collection and analysis		Ameresco		
	Project application processing		Ameresco		
	Project implementation assistance		Ameresco		
	QA inspection and M&EV		Ameresco		
	Pre- and post-installation review and approval	X			
	Customer incentive check processing		Ameresco		
	Incentive check reimbursement	X			
	Invoice and reporting		Ameresco		
	Invoice review and payment	X			

d) **Program Eligibility Requirements:**

i. Customers:

Table 5: Customer Eligibility Requirements

Customer Eligibility Requirement (list of requirements)	PG&E
Customer facility is located in PG&E service territory	X
Customer pays public purpose program (PPP) and gas surcharge	X
Facility demand is greater than 500 kW	X
Customer agrees to install xChangePoint for data monitoring	X
Customer facility is located in PG&E service territory	X

ii. **Contractors/Participants:** Not applicable to this program.

e) **Program Partners:**

i. **Manufacturer/Retailer/Distributor partners:** Not applicable for this program.

- f) **Other key program partners:** None.
- g) **Measures and incentive levels:** Ameresco IEEP targets all major end uses at commercial, industrial and agricultural facilities by implementing customized measures and incentives defined in IOUs portfolios.

Table 6: Summary Table of Measures, Incentive Levels and Verification Rates

Measure Group	Market Actor Receiving Incentive or Rebate	PG&E	
		Incentive Level	Installation Sampling Rate
Lighting	End-Use Customer	\$0.03/\$0.08/kWh	100%
Non-Lighting	End-Use Customer	\$0.08/0.15/kWh	100%

- h) **Additional Services:**

Table 7: Additional Services

Additional Services that the Subprogram Will Provide	To Which Market Actors	PG&E
Continuous monitoring of energy usage for systems and processes (may include separate agreement)	End-Use Customer	X

- i) **Sub-Program Specific Marketing and Outreach:** Ameresco IEEP will employ the following marketing strategy to entice customers to become part of xChangePoint program. Ameresco has a significantly large database of customers grouped by targeted market sectors.

Leverage Existing Customer Relationships

We will achieve the maximum energy savings by collaborating with Ameresco and leveraging customer relationships built by Ameresco. Ameresco has a strong market presence in California with its office in Costa Mesa, due to its strong customer base for implementing several energy efficiency and automated demand response opportunities.

Capitalize on Ameresco Sales & Marketing Efforts

Ameresco IEEP employs a strong sales force in California. Their sales force team is very adept at acquiring customers associated with utility programs. The sales force team can deliver results by combining a strong marketing methodology and setting up one-on-one meetings with targeted customers.

Leverage Ameresco’s Vendor and local PG&E’s Account Managers

Customers, design teams, and contractors will be invited to formal presentations, which will be held throughout PG&E territory or via Webcast. The presentation’s objective is to educate program participants about the benefits associated with the xChangePoint program. The agenda will be uniquely developed in close coordination with PG&E and its account representatives to maximize the program’s impact on its customers.

Engage the Industry through Conference Participation

IEEP will exhibit the program in the two important conferences of the refrigeration industry; IARW (International Association of Refrigerated Warehouses) and RETA (Refrigeration Engineers and Technicians Association). The booth will advertise the program benefits. We propose to staff the booth with **AIS** employees and any utility or program participants who would like to participate. This measure will greatly enhance program awareness as well as highlight PG&E’s leadership in providing meaningful products and services to its customers.

Marketing Materials

Ameresco is developing and will use as appropriate program individual and co-brand (PG&E and Ameresco) marketing brochures.

Timeline: Over the course of the Program.

- j) **Sub-Program Specific Training:** Ameresco IEEP will conduct training and presentations to local and corporate account managers in the first half of 2014.
- k) **Sub-Program Software and/or Additional Tools:**
 - a. List all eligible software or similar tools required for sub-program participation.

Ameresco’s proprietary xChangePoint software and hardware installation is required for this program.
 - b. Indicate if pre and/or post implementation audits will be required for the sub-program.
Pre-implementation audit required Yes No
Post-implementation audit required Yes No
Following data collection and preliminary analysis based on xChangePoint data, Ameresco’s engineers and/or business analysts will perform comprehensive analysis of potential energy savings that may require a site visit and energy audit of existing equipment.
- l) **Post-implementation Audits:** Not applicable to this program.

m) **Sub-Program Quality Assurance Provisions:**

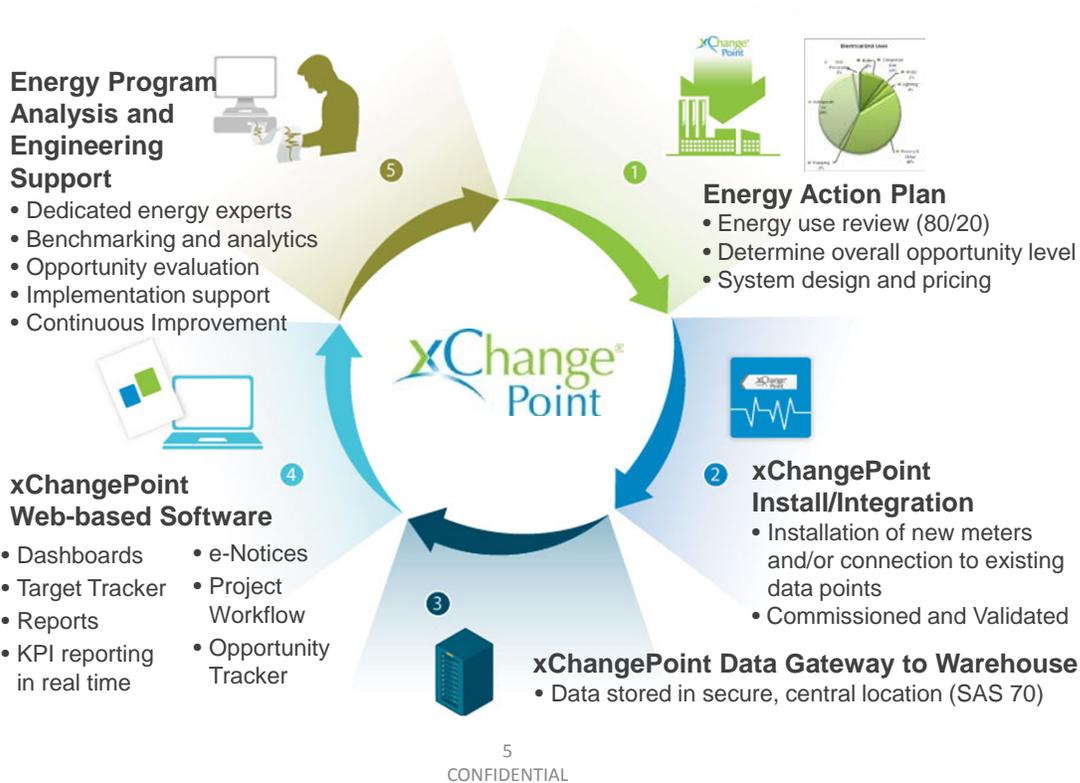
Table 8: Quality Assurance (QA) Provisions

QA Requirements	QA Sampling Rate (Indicate Pre/Post Sample)	QA Personnel Certification Requirements
Ameresco field inspection	100%	Engineering staff
PG&E’s pre- and post-installation review and approval	100%	PG&E engineer or accredited engineering consultant

n) **Sub-program Delivery Method and Measure Installation/Marketing or Training:**
 Please see Program Specific Marketing and Outreach section above.

o) **Sub-program Process Flow Chart:**The major activity and process that will be provided by Ameresco IEEP will be the installation of xChangePoint software and hardware, followed by data collection and analysis for customers’ facilities.

Below is a flow chart to better illustrate the typical process for customized projects which include customer enrollment, application processing, PG&E’s pre-installation review, assistance in project implementation, post-installation inspection and incentive payment to customer.



p) **Cross-cutting Sub-program and Non-IOU Partner Coordination:**

Table 9: Cross-cutting Sub-program and Non-IOU Partner Coordination

Ameresco IEEP		
Other IOU Sub-program Name	Coordination Mechanism	Expected Frequency
Third Party Programs	Individual Meetings, conference call, e-mail	As needed
Auto DR Program	Individual or Group Meetings, Email, conference call	As needed

11) Additional Sub-Program Information

- a) **Advancing Strategic Plan Goals and Objectives:** The program advances objectives of the California Long Term Energy Efficiency Strategic Plan by implementing innovative approaches and tools that could substantially increase cost-effectiveness of energy efficiency offerings.

b) **Integration**

- i. **Integrated/coordinated Demand Side Management:** Please see Cross-cutting Sub-program and Non-IOU Partner Coordination section.
- ii. **Integration across resource types** (energy, water, air quality, etc): Not applicable.

c) **Leveraging of Resources:** Not applicable

d) **Trials/Pilots:** Not applicable.

e) **Knowledge Transfer:** Not applicable.

12) Market Transformation Information

Not applicable.

13) Additional information as required by Commission decision or ruling or as needed

Not applicable.