

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

PECI DATA CENTERS PROGRAM

PGE210138

JULY 2014

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- 1) Sub-Program Name: IDEEA365 - PECI Data Centers
- 2) Sub-Program ID number: PGE210138
- 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:

Description of Customer Segment
517xxx – Telecommunications
518xxx – Data Processing, Hosting, and Related Services
52xxxx – Finance and Insurance
531xxx – Real Estate
561xxx – Administrative and Support Services
524xxx – Insurance Carriers and Related Activities
541xxx – Professional, Scientific, and Technical Services
921xxx – Executive, Legislative, and Other General Government
611xxx – Educational Services
622xxx – Hospitals

- c. Industrial
 - d. Agricultural
- 5) This sub-program is primarily a resource program:
 - 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 1.53 PAC 2.29

- 8) 2013-2014 Sub-Program Budget

Table 1: 2013-2014 Subprogram Budget

Sub Program ID SubProgram Name	Total Administrative Cost	Total Marketing & Outreach	Total Direct Implementation (Customer Services)	Direct Implementation (Incentives & Rebates)	Total 2013-2014 Compliance Budget
PGE210138 PECI Data Centers	\$21,532	\$73,446	\$237,611	\$87,950	\$420,540

- 9) Sub-Program Description, Objectives and Theory

Sub-Program Description and Theory: The DC Plus | Data Center Airflow and Temperature Optimization Program (Data Centers Program, or Program) will deliver data center energy efficiency optimization services to embedded data centers up to 5,000 square feet in size within Pacific Gas and Electric Company’s (PG&E’s) service territory. The program is designed to bridge the gap in current PG&E energy efficiency (EE) [rgrams available to these facilities by addressing the unique needs of this market. The Program is designed to cost-effectively recruit data centers with strong savings potential, engage those data center managers and decision-makers, conduct field activities to assess and identify specific airflow and temperature-related energy savings opportunities, facilitate implementation of measures, and verify correct implementation of those measures that result in energy savings.

- a) **Sub-Program Energy and Demand Objectives:**

Table 2: Projected Sub-Program Gross Energy and Demand Impacts

Program ID	Program Name	Program Year 2014		
		Gross kWh Savings	Gross kW Savings	Gross Therm Savings
PGE210138	PECI Data Centers	1,100,000	126	--

- b) **Program Non-Energy Objectives:** By testing and refining the data collection process to enable greater program scalability over time. The collection of this data will result in further development of case studies to highlight successes and best practices.
- c) **Cost Effectiveness/Market Need:** The methods contained in the Standard Practice Manual will be used.
- d) **Measure Savings/ Work Papers:** Calculated measures for customized projects will have different energy savings and data sources depending on the project. Every calculated project will have a pre- and post- inspection to determine the actual energy savings.

Work paper Status: No workpapers have been submitted for this program.

10) Program Implementation Details

a) **Timelines:**

Table 3: Milestones

Milestone	Date
Recruitment/Customer Enrollment	July 31, 2014
Data Center Assessments (Audits) and Recommendations	September 30, 2014
Measure Implementation/Implementation Support	November 1, 2014
Verification and Final Implementation Report	December 1, 2014

- b) **Geographic Scope:** The Data Centers 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)
PECI Data Centers	Contract Execution	X			
	Program Materials Development		PECI		
	Program materials review and approval	X			
	Setting up tracking & reporting systems	X	PECI		

	Marketing and Program sale		PECI and PECI Subcontractors		
	Program leads and customer relationship management	X	PECI and PECI Subcontractors		
	Training and presentation to PG&E personnel		PECI		
	Project application processing		PECI		
	Project implementation assistance		PECI & PECI Subcontractors		
	QA inspection and EM&V		PECI		
	Pre- & post-install review & approval	X			
	Customer incentive check processing		PECI		
	Incentive check reimbursement	X			
	Invoice and reporting		PECI		
	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 must be an electric or natural gas customer of PG&E with an active meter serviced by PG&E.	X
Customers throughout PG&E’s Service Territory with the following NAICS codes are eligible: 44-45, 491, 492, 493, 53, 54, 55, 61, 62, 72, 8133-8134, 8139, 92	X
Customer must pay the Public Purpose Programs (PPP) surcharge on the electric meter for which the energy efficient equipment is proposed.	X
Data centers embedded within other commercial, institutional, or industrial buildings or campus.	X
Data centers less than 5,000 square feet in size.	X
No major IT projects slated during the Program period that would impact audit or project implementation activities.	X
Known temperature or performance issues in the data center related to the HVAC system and relatively high energy use of the facilities portion of the data center (indicating opportunities to hit energy savings targets).	X
Type of HVAC system conducive to making airflow-related optimizations or that indicate they have significant airflow or cooling issues (e.g., air-cooled DX, or facilities that use portable air conditioning units to meet their overall cooling requirements).	X

- ii. **Contractors/Participants:** The Data Centers Program contracted with three California engineering firms to recruit and support program projects. Each firm specializes in data center project implementation. Each firm is required to submit 2-3 approved program projects. Each firm will participate in program process and customer recruitment training, provided by the Program.

e) **Program Partners:**

- i. **Manufacturer/Retailer/Distributor partners:**

Not applicable for this program.

- ii. **Other key program partners:**

None.

- f) **Measures and incentive levels:** Provide measure groupings and market actors, no need to list detailed measures that are included in E3 calculators. Sampling rate is percent of installed measures PG&E selects for verification.

A free on-site assessment (audit) of the data center will be performed to identify potential opportunities for optimization of the data center. The Program will collect data, review select data center energy consuming systems, and identify opportunities for select equipment retrofits. These recommended retrofits are combined into one, Data Center Airflow and Temperature Optimization measure. The customer will receive an incentive of \$.08 per kWh saved, \$100/kW. The sampling rate is 100 percent of installed measures; PG&E selects for verification.

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
Data Center Airflow and Temperature Optimization Measure	Customer	\$.08/kWh saved \$100/kW saved	100%

- g) **Additional Services:**

Not applicable for this program.

h) Sub-Program Specific Marketing and Outreach:

The Program will track the effectiveness and overall success of all marketing efforts through qualitative and quantitative metrics. These metrics are used to monitor recruitment progress over time, and determine if additional tactics, methods, or materials are needed to get on track. Table 7 below provides an overview of the Program’s planned major marketing tactics and their associated metrics.

Table 7: Sub-Program Specific Marketing and Outreach

Marketing Tactic	Approach	Effectiveness Metrics	Schedule
Direct phone and email	Direct outreach to promote Program participation, with a specific call to action to sign up for an audit	Qualitative and quantitative feedback; Customer Feedback Survey results	Ongoing throughout Program recruitment
Fact Sheet	Awareness and education piece for customers, outlining the benefits, Program services, Program requirements and incentives	Qualitative feedback	Within first two months of Program
DCPlus.org Program Website	Simple, streamlined web presence to outline Program benefits, value, process, requirements, and incentives	Website analytics, TBD	Within first two months of Program
PowerPoint Slidedeck	Awareness and education piece for customers, outlining the benefits Program services, Program requirements and incentives	Qualitative feedback	Within first two months of Program

i) Sub-Program Specific Training:

Table 8. Sub-Program Training

Training	Approach	Effectiveness Metrics	Schedule
Provide Training to PG&E	PECI will provide Program awareness training to appropriate PG&E staff on the Program offerings, to include Program objectives, marketing materials overview, process, and other topics mutually agreed upon by PECI and PG&E.	Recruitment of approved customers	No less than quarterly throughout Program
Providing Training to Program Subcontractors	PECI will train Program Subcontractors at their designated in-person Program Kickoff. Training will include Program objectives and timeline, Program marketing toolkit, Program technical toolkit, including data collection forms and calculation spreadsheets, Program process, forms, templates, and submittal requirements, Milestone deliverables and payment structure	Recruitment of approved customers	Within first 4 months of Program
Attendance at PG&E Trainings	At PG&E’s request, PECI will attend all required PG&E-sponsored workshops, Webinars, and other training events.	Applying learnings to program process as applicable	Ongoing throughout program

- j) **Sub-Program Software and/or Additional Tools:** Not applicable for this resource program.
- Pre-implementation audit required Yes No
 - Post-implementation audit required Yes No

Customer Incentives:

The Data Centers Program makes payment of program incentives to the customer following installation verification. PECI staff review the energy savings calculations and revise them, as necessary, to reflect the post-installation conditions. Customer incentive payments are based on the actual installed and verified measures. Program staff assemble supporting documents for each project and submit it to the PG&E program manager for review and approval. Upon PG&E approval of each project, the Program notifies the customer that the application has been approved, and processes and delivers the incentive check to the customer.

Table 9: Post-implementation Audits

Levels at Which Program Related Audits Are Rebated or Funded	Who Receives the Rebate/Funding (Customer or Contractor)
Project approval is received from PG&E	Customer

- k) **Sub-Program Quality Assurance Provisions:** The PECI Data Centers Program will ensure completeness of all deliverables prior to submission to PG&E in order to ensure they adhere to PECI’s high standards and PG&E technical guidelines and review processes. Reviews will include checks for completeness, accuracy, and soundness of analysis and engineering methodology. PECI and PG&E program, operations, and engineering staff all play a role in ensuring that deliverables are complete and thoroughly reviewed in order to obtain final approval.

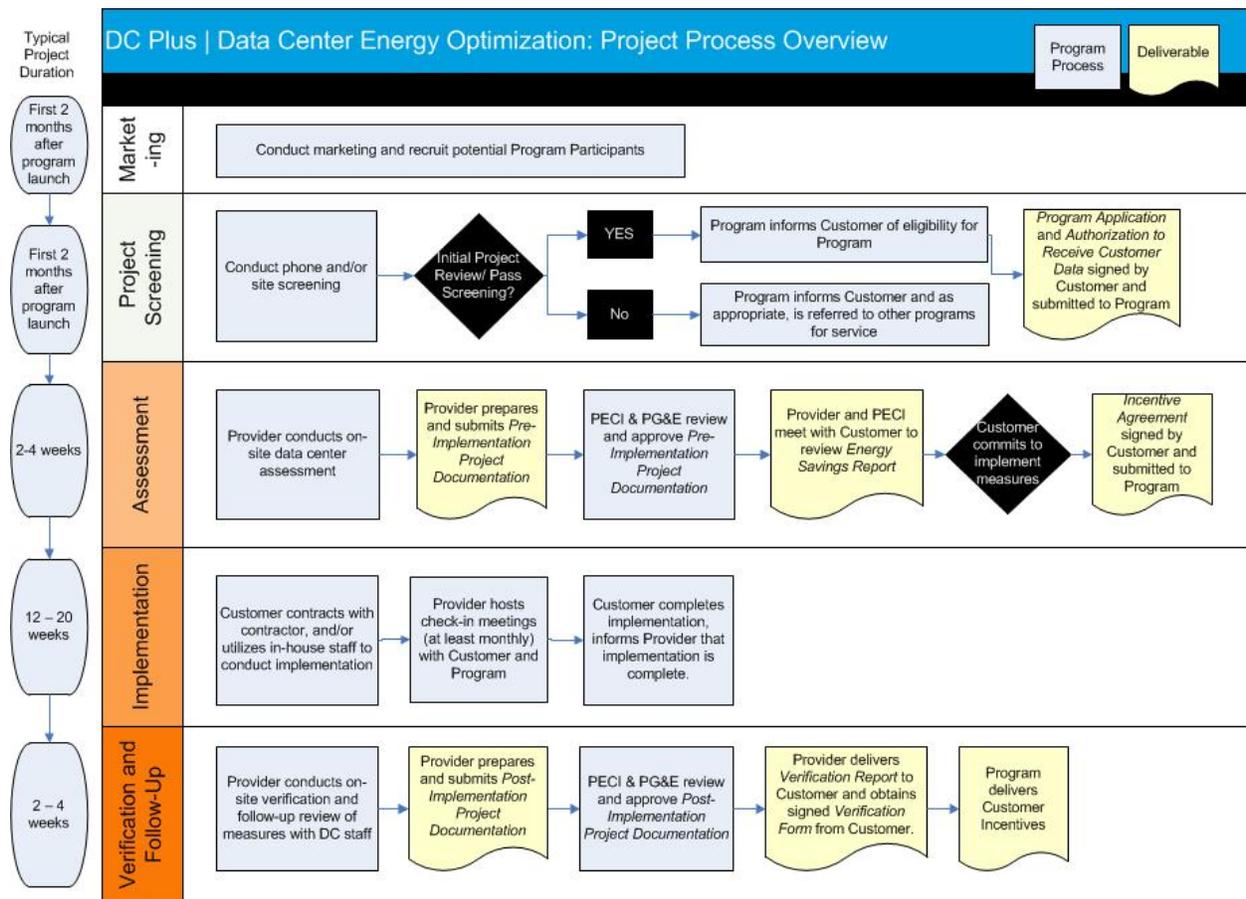
Table 10: Quality Assurance (QA) Provisions

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

- l) **Sub-program Delivery Method and Measure Installation/Marketing or Training:**

All described above.

m) **Sub-program Process Flow Chart:**



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

The Data Centers Program complements PG&E’s High Tech Program, which addresses IT-related opportunities and covers the 5,000+ square foot standalone data centers.

The Data Centers Program and PG&E’s IDEEA 365- Analytics Enabled Retrocommissioning (AERCx) Program implements projects in the same customer and market segments. The Data Centers Program holds regular meetings with the AERCx program to discuss program process updates and possible customers who would benefit from measures from both the AERCx and Data Centers programs.

Table 11: Cross-cutting Sub-program and Non-IOU Partner Coordination

Program Name		
Other IOU Program Name	Coordination Mechanism	Expected Frequency
PG&E High Tech Program	Referred as the Data Centers Program discovers data centers greater than 5,000 square feet	As needed.
IDEEA 365 - Analytics Enabled RCx Program	Group Meetings and Email	Bi-monthly

11) Additional Sub-Program Information

a) **Advancing Strategic Plan Goals and Objectives:**

The Program is a pilot program designed to bridge the gap in services offered to customers related to data centers and IT/HVAC efficiency.

b) **Integration**

i. **Integrated/coordinated Demand Side Management:**

The Program is working with PG&E to provide a comprehensive, integrated solutions approach to maximize resource efficiency by promoting other PG&E programs applicable to the Program’s targeted customer segment. The Program coordinates and integrates its efforts with PG&E’s EE programs. The Program’s coordination and integration requirements include, but are not limited to, coordination with programs implemented by PG&E, other third parties, and local government partnerships, as well as programs targeting low-income customers.

ii. **Integration across resource types** (energy, water, air quality, etc):

The Program does not currently work with any non-EE programs.

c) **Leveraging of Resources:**

PG&E’s EM&V group is currently conducting market research related to the embedded data center market. The Program will coordinate and plans to collaborate closely on areas of shared knowledge and leveragable resources.

d) **Trials/Pilots:**

Not applicable for this program.

e) **Knowledge Transfer:**

The program will track project and program process throughout the duration of the program. Per the request of PG&E, the program will provide a final program report outlining best practices and lessons learned that were tracked.

12) Market Transformation Information:

Not applicable for this program.

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

Not applicable for this program.