

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

**WATER INFRASTRUCTURE AND SYSTEM EFFICIENCY
(WISE) PROGRAM
PGE210135**

MAY 2014

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Subprogram Name: IDEEA365 - Water Infrastructure and System Efficiency (WISE) program

- 1) **Sub-Program Name: Water Infrastructure and System Efficiency (WISE) program**
- 2) **Sub-Program ID number: PGE_210135**
- 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 (List applicable NAIC codes: _____)
 - c. Industrial (List applicable NAIC codes: 2213XX, 237110,
_____)
 - d. Agricultural (List applicable NAIC codes: 111XXX, 1125XX_____)
- 5) **Is this sub-program primarily a:**
 - e. Non-resource program Yes No
 - f. Resource acquisition program Yes No
 - g. Market Transformation Program Yes No
- 6) **Indicate the 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: 1.29 PAC: 1.82**

8) Sub-Program Budget

Table 1. 2014 Sub-Program 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
PGE210135 Lincus Water Infrastructure & System Efficiency Program	\$110,618	\$180,670	\$726,933	\$319,353	\$1,337,573

9) Sub-Program Description, Objectives and Theory

a) Sub-Program Description and Theory:

The Water Infrastructure and System Efficiency Program (WISE or “the Program”) garners energy savings by optimizing water and wastewater agency, special district, city-owned and miscellaneous other water systems. The Program benchmarks each participating customer’s pumps utilizing available data, evaluates the agency’s pumping system for optimization opportunities, and provides technical implementation assistance to drive projects to installation. In addition, the Program will provide Water Energy Nexus (WEN) Education and Outreach opportunities to selected water and wastewater system operators and evaluate and document the availability of customer water-energy data. The Program will identify and work with selected customers to develop embedded energy and energy intensity profiles for their systems and identify opportunities for improvement and integrated water-energy resource management.

The Program provides technical services to develop project feasibility studies, provide project management assistance, and perform all measurement and verification services as necessary for the installation of high-efficiency equipment, and/or process system efficiency improvements to obtain incentives from WISE. Customers that install energy-saving technology are eligible for energy efficiency incentives based on calculated energy savings and permanent peak demand reduction. Incentives are paid on the energy savings and permanent peak demand reduction above and beyond baseline energy performance, which include state-mandated codes, federal-mandated codes, industry-accepted performance standards, or other baseline energy performance standards as determined by PG&E or the California Public Utilities Commission (CPUC).

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

Table 2. 2014 Projected Sub-Program Gross Energy and Demand Impacts

		Program Year 2014		
Program ID	Program Name	Gross kWh Savings	Gross kW Savings	Gross Therm Savings
PGE210135	Lincus WISE	3,257,377	587	--

- c) **Program Non-Energy Objectives:** All programs to complete, including non-resource. List objectives and include quantitative non-energy program targets here as applicable.

In addition to the Standard WISE project process, certain customers will participate in the Water Energy Nexus (WEN) component of the WISE program. These customers will be selected in collaboration between the implementer, PG&E and the customer. WEN includes the following two activities:

- **State of Water-Energy Data Report:**
 The implementer will enroll WEN participating customers (operating water and/or wastewater systems) to participate in a study to determine and document the availability of key water and energy data. Customers will be required to respond to a survey of available data and provide data related to system operations as well as water production and energy consumption.

The implementer will develop a State of Water-Energy Data Report for each participating customer that includes, but is not limited to, lists of available water supply data (purchased, surface and ground), water demand data, energy data (e.g., pump, booster, treatment), and customer options for next steps. For wastewater customers, the report will determine what data is available for wastewater conveyance, treatment and effluent flows. The report will be presented to the customer and along with suggestions for potential next steps. This presentation will typically occur concurrently with a benchmark presentation and/or a site visit by Lincus.

- **Water Agency Data Analysis Report:**
 The implementer will conduct an analysis of water and energy data obtained from a selection of the participating agencies related to energy use intensities, load and consumption profiles. The implementer will produce a Water Agency Data Analysis Report for each selected agency, which will include, but is not limited to, the following subsections:

- Water Production: production profiles, water source drivers, monthly and annual profiles
- Energy Consumption: monthly and annual energy consumption profiles and drivers
- Energy Intensity: agency energy intensity, distribution of intensities across system
- Water Agency Data Analysis: water and energy peak alignment evaluation, usage drivers and resource integration opportunities, and
- Project Recommendations: high level assessment showing energy efficiency, demand response, and distributed generation opportunities, prioritized project opportunities, and implementation options.

For wastewater customers, the report will include the following subsections:
 Wastewater conveyance energy consumption: flow profiles, monthly and annual profiles; Wastewater treatment energy consumption; Effluent pumping energy consumption.

d) Cost Effectiveness/Market Need:

Cost effectiveness of the program was determined by inputting program targets in the most current version of the E3 Estimator. Program targets underserved market of Water Agencies, including water supply and waste water systems.

e) 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.

Table 4 – Work paper Status

No workpapers have been submitted for this program.

10) Program Implementation Details

a) Table 5. Timeline

Milestone	Date
Contract Execution	Q1 2014
Develop Program Materials	Q2 2014
Training Presentations to PG&E Staff	Q2 2014
Project Marketing & Sales/Customer Enrollment	Q3 2014
Project Implementation & M&V*	Q4 2014

* Based on program evaluation, program may continue beyond 2014.

b) **Geographic Scope:**
 The WISE Program is offered throughout PG&E’s service territory.

c) **Program Administration**

Table 7: 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)
Lincus WISE	Contract execution	X			
	Program materials development		Lincus WISE		
	Program materials review and approval	X			
	Setting up tracking and reporting systems	X			
	Marketing and Program sale		Lincus WISE		
	Program leads and customer relationship management	X			
	Training and presentation to PG&E personnel		Lincus WISE		
	Project application processing		Lincus WISE		
	Project implementation assistance		Lincus WISE		
	QA inspection and M&EV		Lincus WISE		
	Pre- and post-installation review and approval	X			
	Customer incentive check processing		Lincus WISE		
	Incentive check reimbursement	X			
	Invoice and reporting		Lincus WISE		
	Invoice review and payment	X			

d) **Program Eligibility Requirements:**

i. **Customers:** List any customer eligibility requirements (e.g., annual energy use, peak kW demand):

Table 8: Customer Eligibility Requirements

Customer Eligibility Requirement (list of requirements)	PG&E
Nonresidential customer	X
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: 2213xx; 237110; 111xxx; 1125xx.	X
Customer must pay the Public Purpose Programs (PPP) surcharge on the electric meter for which the energy efficient equipment is proposed.	X

ii. Contractors/Participants:

Not applicable to this program

Table 9 - Not Applicable

e) Program Partners:

a. Manufacturer/Retailer/Distributor partners:

Not applicable to this program.

Table 10 – Not Applicable

b. Other key program partners:

None.

f) Measures and incentive levels:

Table 11: 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 Basic	Customer	\$0.03 per kWh saved \$100 per kw	100%
Lighting Advanced/Targeted	Customer	\$0.08 per kWh saved \$100 per kw	100%
Non-Lighting Basic	Customer	\$0.08 per kWh saved \$100 per kw	100%
Non-Lighting Advanced/Targeted	Customer	\$0.15 per kWh saved \$100 per kw	100%
Natural Gas	Customer	\$1.00 per Therm saved	100%

g) Additional Services:

Table 12: Additional Services

Additional Services that the Sub-Program Will Provide	To Which Market Actors	PG&E
Water Energy Nexus (WEN)	Customers/Water Agencies	X

h) Sub-Program Specific Marketing and Outreach:

The Program will outreach directly to water agencies. In addition, the Program will provide Water Energy Nexus (WEN) Education and Outreach opportunities to selected water and wastewater system operators.

i) Sub-Program Specific Training:

One all day training session will be hosted for participating water agencies.

j) Sub-Program Software and/or Additional Tools:

- a. List all eligible software or similar tools required for sub-program participation.

Engineering calculation tools will be used for defining energy savings.

- 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

- c. As applicable, indicate levels at which such audits shall be rebated or funded, and to whom such rebates/funding will be provided (i.e. to customer or contractor).

Pre-installation project specific audits are funded by the program.

Table 13: Post-implementation Audits

Post installation M&V will be conducted for each project.

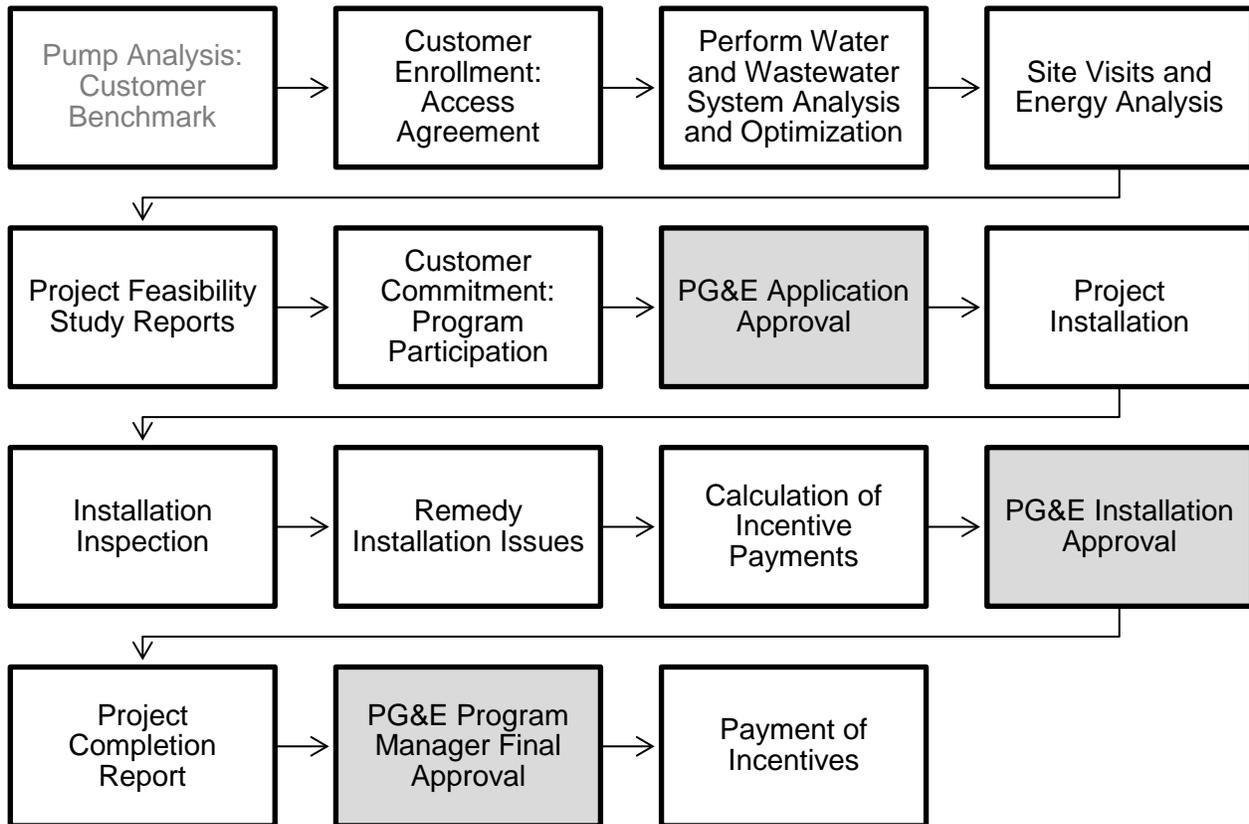
k) Sub-Program Quality Assurance Provisions:

Table 14: Quality Assurance Provisions

QA Requirements	QA Sampling Rate (Indicate Pre/Post Sample)	QA Personnel Certification Requirements
Lincus field inspection	100%	Engineering staff
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:

Sub-program Process Flow Chart:



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

Table 15: Cross-cutting Sub-program and Non-IOU Partner Coordination

Program Name		
Other IOU Sub-program Name	Coordination Mechanism	Expected Frequency
Advanced Pumping Efficiency Program	Individual Meetings	As needed, roughly monthly
Deemed & Calculated Nonresidential	Individual or Group Meetings and Email	As needed, roughly monthly
Emerging Technologies	Individual or Group Meetings and Email	As needed, roughly quarterly
3rd Party	Individual or Group Meetings and Email	As needed, roughly quarterly
Codes & Standards	Individual Calls or Meetings	As needed, roughly quarterly

n) **Logic Model:**

The third party is an implementation channel and is included in the appropriate market segment logic models. No specific logic model for a particular third party program has been developed.

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 approach and tools that would substantially increase cost-effectiveness of energy efficiency offerings for the under served market of water agencies.

b) **Integration**

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

Water/Energy Nexus.

Table 16 – Not Applicable

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

Lincus WISE may pursue an intergrated approach to water and energy savings when applicable.

c) **Leveraging of Resources:**

Not applicable for this program.

d) **Trials/ Pilots:**

Not applicable for this program.

e) **Knowledge Transfer:**

Not applicable for this program.

12) Market Transformation Information: For programs identified as market transformation programs, include the following (suggested page limit- five pages):

- i. A summary of the market transformation objectives of the program.
Not applicable for this program.
- ii. A description of the market, including identification of the relevant market actors and the relationships among them;
Not applicable for this program.
- iii. A market characterization and assessment of the relationships/dynamics among market actors, including identification of the key barriers and

opportunities to advance demand side management technologies and strategies;

Not applicable for this program.

- iv. A description of the proposed intervention(s) and its/their intended results, and specify which barriers the intervention is intended to address;

Not applicable for this program.

- v. A coherent program, or “market,” logic model that ensures a solid causal relationship between the proposed intervention(s) and its/their intended results¹;

Not applicable for this program.

- vi. Appropriate evaluation plans and corresponding Market Transformation indicators and Program Performance Metrics based on the program logic model.

Not applicable for this program.

- 13) Additional information as required by Commission decision or ruling or as needed:**
Include here additional **information** as required by Commission decision or ruling (As applicable. Indicate decision or ruling and page numbers):

Not applicable.

¹ If this logic model is the same as that requested in #10.(O), only provide once. As needed, provide a more detailed logic model emphasizing the market transformation elements of the program and/or how such elements integrate with resource acquisition elements.