

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

CLEARRESULT HIGH EFFICIENCY WATER HEATER PROGRAM
PGE210132

JULY 2014

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- 1) **Sub-Program Name: IDEEA365 – CLEAResult High Efficiency Water Heating Program**
- 2) **Sub-Program ID number: PGE210132**
- 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
 - 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)¹:**

TRC: 1.01 PAC: 1.26

¹ TRC and PAC calculations from the original contract.

8) Sub-Program Budget

Table 1. 2013-2014 Sub-Program Budget

Sub Program ID	Total Administrative Cost	Total Marketing & Outreach	Total Direct Implementation (Customer Services)	Direct Implementation (Incentives & Rebates)	Total 2013-2014 Revised² Budget
PGE210132 CLEAResult High Efficiency Water Heater Program	\$76,412	\$118,057	\$84,292	\$259,875	\$538,636

9) Sub-Program Description, Objectives and Theory

a) Sub-Program Description and Theory:

The High Efficiency Water Heater Program (or “Program”) offers incentives for the installation of ENERGY STAR® qualified natural gas storage water heaters and heat pump water heaters. Incentives are also available for direct installation of showerheads and faucet aerators. Customers receive incentives at the time of installation as instant discounts displayed on proof of purchase receipts, and contractors are reimbursed through direct program rebates. Installation contractors will also receive a contractor incentive for providing the service and submitting the rebate application on behalf of the customer. This Third Party Program will complement the core Residential Program’s commitment to successfully overcome water heater industry barriers. Some of the key barriers include limited availability of energy efficient models being stocked at retail and contractor distribution centers; low awareness/knowledge of energy efficient technologies at contractor and consumer level; and low awareness/knowledge of PG&E rebate.

The High Efficiency Water Heater Program targets single family, mobile, and multifamily homes throughout PG&E’s service territory. The goal of the High Efficiency Water Heater Program is to provide a midstream contractor-driven channel that promotes and sustains market acceptance of high efficiency water heaters. The program also aims to influence stocking practices such that higher efficiency water heaters become readily available for emergency replacement situations.

² Program PGE21032 was originally allocated total funding of \$1,868,745, as reported in PG&E’s Monthly Energy Efficiency Program Costs and Impacts Reports, but has been reduced due to current and projected program uptake.

The Program will facilitate market transformation by engaging manufacturers, distributors, home warranty companies, and contractors, encouraging them to provide and stock high efficiency gas and heat pump water heaters, and inform them of the consumer benefits. The program provides training to contractors on selecting the appropriate model for each customer application, best practice installation guidelines, and on program rules and requirements. Contractors are commonly the primary source of information for customers who are replacing water heaters. The Program objectives are to transform product availability and stocking practices and to educate and train contractors to introduce the benefits of high efficiency water heaters at the time of purchase in order to influence the customer’s purchasing decision.

b) Sub-Program Energy and Demand Objectives:

Table 2. 2013-2014 Projected Sub-Program Gross Energy and Demand Impacts³

		2013-2014 Program Cycle		
Program ID	Program Name	Gross kWh Savings	Gross kW Savings	Gross Therm Savings
PGE210132	CLEAResult High Efficiency Water Heater Program	134,657	30	43,748

c) Sub-Program Non-Energy Objectives:

- i. Work with manufacturers to address the development, product availability and pricing of qualifying models.
 - Increase product availability by influencing the supply chain through collaboration with manufacturers to 1) identify and promote eligible qualifying products within the marketplace; and 2) identify possible new qualifying models to bring to market.
- ii. Work with suppliers and distributors to increase stocking of energy efficient water heaters.
 - Negotiate commitments from suppliers to stock high efficiency units by 1) providing program marketing to drive increased sales of eligible products; and 2) co-hosting events to train contractors on installation and consumer benefits of high efficiency units and to explain program requirements and benefits.

³ Projected savings are based on the revised program budget shown in Table 1.

- iii. Increase contractor and customer awareness of the benefits of efficient water heaters.
 - Provide training on program features and incentives to contractors and retail sales associates, thereby creating program advocates who can explain program benefits and help inform customers who are in the process of making a purchase.
 - Provide marketing materials and incentive information at the point of sale.
 - Conduct general marketing about the benefits of efficiency water heating through targeted and time-limited campaigns, social media, and content delivery through PG&E and statewide marketing and outreach channels.

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 single family, mobile, and multifamily homes.

The TRC and PAC noted in this program implementation plan are from the original contract. Due to difficulty moving the market, the program budget and savings goals were reduced to reflect current program performance compared to the original contract.

e) Measure Savings/ Work Papers:

Deemed measures with savings provided by DEER based on building type are utilized for this program.

The following workpapers are approved by PG&E and are pending approval by the CPUC:

HA 58: Work Paper PGECODHW104 R3 - Gas Storage Water Heater

HA 47: Work Paper PGECODHW106R3 - Electric Storage and Heat Pump Water Heater

10) Program Implementation Details

a) Table 3. Timeline

Milestone	Date
Contract Execution	Q3 2013
Develop Program Materials	Q3 2013
Training Presentations to PG&E Staff	Q3 2013
Project Marketing & Sales/Customer Enrollment	Q3 2013
Program Closure Evaluation*	Q4 2014

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

b) **Geographic Scope:**

The Program is offered throughout PG&E’s service territory.

c) **Program Administration**

**Table 4: CLEAResult High Efficiency Water Heater Program
 Administration of Program Components**

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)
Contract execution	X			
Program materials development		CLEAResult		
Program materials review and approval	X			
Setting up tracking and reporting systems	X			
Marketing and Program sale		CLEAResult		
Program leads and customer relationship management	X			
Training and presentation to PG&E personnel		CLEAResult		
Project application processing		CLEAResult		
Project implementation assistance		CLEAResult		
QA inspection and M&EV		CLEAResult		
Field Inspection	X			
Customer incentive check processing		CLEAResult		
Incentive check reimbursement	X			
Invoice and reporting		CLEAResult		
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 5: Customer Eligibility Requirements

Customer Eligibility Requirement (list of requirements)	PG&E
Customers in single family or multifamily homes; and detached manufactured homes	X
Customer must be an electric or natural gas customer of PG&E with an active meter served by PG&E.	X
Customers throughout PG&E’s service territory	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:**

Contractors are required to sign a participation agreement and adhere to program requirements.

e) **Program Partners:**

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

The Program is doing outreach to establish relationships with manufacturers and distributors to facilitate availability and stocking of energy efficient units, and to work together to train contractors on the benefits and installation of energy efficient units. This collaboration will encourage contractors to promote energy efficient units with their customers.

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

None.

f) **Measures and incentive levels:**

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
Gas storage water heater rebate	<ul style="list-style-type: none"> • Rebate will go to contractor. • Customer receives an instant rebate from contractor towards cost of unit. 	\$200	100%
Electric heat pump water heater rebate	<ul style="list-style-type: none"> • Rebate will go to contractor. • Customer receives an instant rebate from contractor towards cost of unit. 	\$500	100%
Low flow showerheads	Customer	No cost	100%

g) **Additional Services:**

None.

h) **Sub-Program Specific Marketing and Outreach:**

The outreach and marketing strategy is primarily designed to cost effectively meet the High Efficiency Water Heater Program’s goals and support seamless program delivery. Since this is a midstream incentive program, the primary focus of outreach and marketing is on identifying leading contractors willing to promote high efficiency water heaters and providing them with educational resources to influence customer purchasing decisions from standard to high efficiency options at the time of sale through contractor-installed opportunities.

Since contractor installation represents about half of all water heater installations (the remainder are retail purchases), the Program addresses the ways that contractors make decisions about stocking, promotion, and selling water heaters. It is possible that with the increase in market saturation of high efficiency water heaters over time, the percentage of contractor-installed models will increase. Specifically, the need for power venting of advanced gas storage water heaters and more complex installation requirements of high efficiency water heaters compared to standard electric water

heaters typically calls for a trained and licensed professional; as such, it is possible that the balance of retail/contractor purchases may shift towards contractors. For this reason, the Program will track market trends and identify opportunities for contractors to increase stocking of high efficiency water heaters as well as customer education on efficiency, safety, and comfort.

As with any Market Transformation effort, it is anticipated that the initial participating contractors will be market leaders comfortable with newer technology; the program will seek to engage these leaders, demonstrate business success, and draw in succeeding tiers of plumbing contractors with additional training and customer satisfaction and positive business results.

i) Sub-Program Specific Training:

One hour training sessions will be hosted to promote contractor enrollment and participation in the program.

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

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

This does not apply to this program.

- ii. Indicate if pre and/or post implementation audits will be required for the sub-program.

Pre-implementation audit required __ Yes X No

Post-implementation audit required __ Yes X No

- iii. 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).

This does not apply to this program.

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

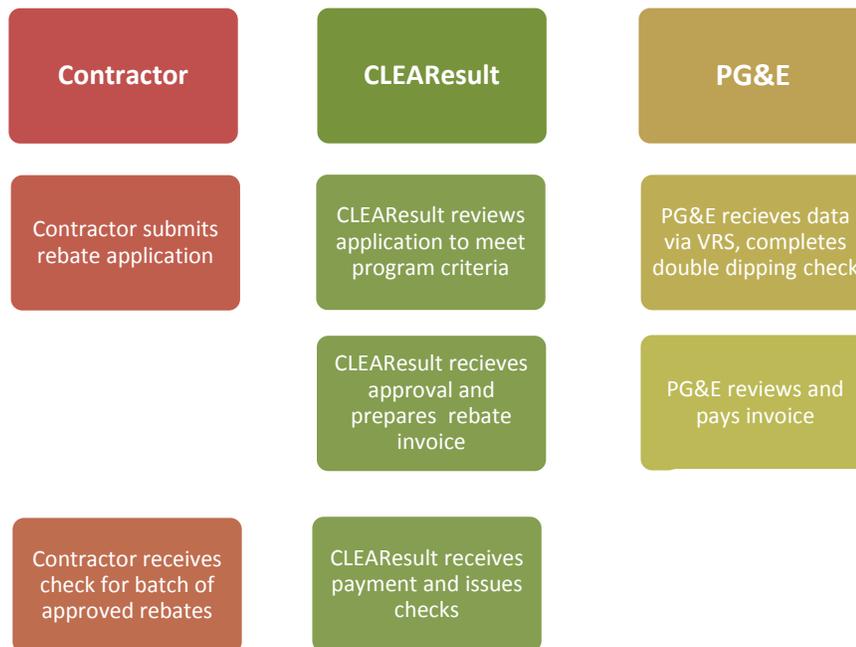
Table 7: Quality Assurance (QA) Provisions

QA Requirements	QA Sampling Rate (Indicate Pre/Post Sample)	QA Personnel Certification Requirements
PG&E CIP Field Inspections are performed	20%	PG&E engineer or accredited engineering consultant

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

See section 10.h above – Marketing and Outreach.

m) **Sub-program Process Flow Chart (for rebate processing workflow):**



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

Not applicable for this program.

11) Additional Sub-Program Information

- a) **Advancing Strategic Plan Goals and Objectives:** The Program supports introducing new technology and facilitating market transformation for energy efficient water heaters.
- b) **Integration:** Not applicable for this program.
- 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:

- a) Summary of the market transformation objectives of the program:

The Program objective is to introduce the benefits of high efficiency water heaters at the time of purchase and influence the purchasing decision by offering an instant rebate in the form of a discount on their bill for installation of the energy efficient water heater. The majority of the initial program efforts will be to engage a network of high quality contractors and home warranty companies through existing relationships with manufacturers and distributors. Contractors will act as the primary ambassadors of the program to deliver information to customers regarding the program.

Since water heaters are typically not replaced unless they are failing, contractors are a critical path for customers to receive information regarding high efficiency options. Hot water outage is viewed as a major inconvenience and response time for replacement is critical. Having high efficiency models stocked by suppliers and readily available; and educating contractors on how to demonstrate the benefits to customer and effectively sell models with the rebates will be key strategies to program success.

- b) Description of the market, including identification of the relevant market actors and the relationships among them:

The market actors that influence the availability of energy efficient water heater models in the marketplace are:

- Manufacturers of qualifying models
- Suppliers/Distributors of qualifying models
- Trade Associations
- Contractors

If suppliers/retailers do not stock energy efficient models, contractors have no source of supply and are unable to promote installing these units for emergency requests. Further,

if contractors are not trained on the installation and benefits of energy efficient models, they will not offer them to customers. In order to transform the market, the market actors have to have a common vision of getting energy efficient models into the marketplace and installed by contractors that they have a relationship with.

- c) 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:

In response to market barriers, CLEAResult’s program design for energy efficient water heaters provides a comprehensive approach to the manufacturer, contractor, retailer and consumer channels to provide cost-effective savings while transforming product availability and stocking practices. Strategies to facilitate market transformation by collaborating with key market actors are described below:

Manufacturer and Distributor Outreach

- Close cooperation with manufacturers (including Rheem, A.O. Smith, and Bradford White) to increase production and availability of water heaters
- Partnerships with each manufacturer to increase product knowledge and visibility with contractors and distributors
- Engagement with distributors, including regional installers representing Lowe’s, Home Depot and Sears sales and installation groups to focus on increased supply, customer benefits, and logistics of transitioning product selection
- Commitments from manufacturers to work with retailers to increase stocking
- Retailer Engagement
Point-of-sale signage installed at major retailers throughout territory, with electric heat pump water heater focus in PG&E Areas 4, 5, and 6, and gas storage water heater focus in major population centers with higher sales volumes
- Engagement of major retailers to implement in-store trainings, lead generator desk and sales associate trainings

Contractor Outreach

- Outreach to plumbing contractors to discuss ENERGY STAR® qualified water heaters, and distribute sales and educational materials at training sessions
- Develop “What’s Hot in Water Heating” trade ally training
- Free trade ally training on the benefits of selling ENERGY STAR® qualified water heaters

- d) 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.

- e) Coherent program, or “market,” logic model that ensures a solid causal relationship between the proposed intervention(s) and its/their intended results:

Industry partnerships are a critical and demonstrated part of the market transformation strategy for residential water heaters. The program team will establish partnership agreements specific to PG&E’s program with Sears, Lowe’s, and Home Depot, and will build on existing relationships with the major manufacturers. Teaming agreements will be signed with these retailers to allow for sharing of information and collaboration in specific utility program implementation opportunities. With PG&E, the team will update these agreements to include a scope of work specific to this program. Key elements of the agreements will include training for sales and installation staff, point-of-sale customer educational materials, tracking and sharing of relevant sales data, and if appropriate, upstream incentive terms. The program will also coordinate with SMUD and other municipal utilities to co-promote the gas storage water heater rebate in their territories.

- f) Appropriate evaluation plans and corresponding Market Transformation indicators and Program Performance Metrics based on the program logic model:

Not applicable for this local program.

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

Not applicable.