

RTR Appendix

Southern California Edison, Pacific Gas and Electric, Southern California Gas, and San Diego Gas and Electric (“Joint Utilities” or “Joint IOUs”) developed Responses to Recommendations (RTR) contained in the evaluation studies of the 2013-2015 Energy Efficiency Program Cycle. This Appendix contains the Responses to Recommendations in the report:

RTR for the PG&E Smart Thermostat Program Process Evaluation (Opinion Dynamics, Calmac ID #PGE0422.01, ED WO #2160)

The RTR reports demonstrate the Joint Utilities’ plans and activities to incorporate EM&V evaluation recommendations into programs to improve performance and operations, where applicable. The Joint IOUs’ approach is consistent with the 2013-2016 Energy Division-Investor Owned Utility Energy Efficiency Evaluation, Measurement and Verification (EM&V) Plan¹ and CPUC Decision (D.) 07-09-043².

Individual RTR reports consist of a spreadsheet for each evaluation study. Recommendations were copied verbatim from each evaluation’s “Recommendations” section.³ In cases where reports do not contain a section for recommendations, the Joint IOUs attempted to identify recommendations contained within the evaluation. Responses to the recommendations were made on a statewide basis when possible, and when that was not appropriate (e.g., due to utility-specific recommendations), the Joint IOUs responded individually and clearly indicated the authorship of the response.

The Joint IOUs are proud of this opportunity to publicly demonstrate how programs are taking advantage of evaluation recommendations, while providing transparency to stakeholders on the “positive feedback loop” between program design, implementation, and evaluation. This feedback loop can also provide guidance to the evaluation community on the types and structure of recommendations that are most relevant and helpful to program managers. The Joint IOUs believe this feedback will help improve both programs and future evaluation reports.

¹ Page 336, “Within 60 days of public release of a final report, the program administrators will respond in writing to the final report findings and recommendations indicating what action, if any, will be taken as a result of study findings. The IOU responses will be posted on the public document website.” The Plan is available at <http://www.energydataweb.com/cpuc>.

² Attachment 7, page 4, “Within 60 days of public release, program administrators will respond in writing to the final report findings and recommendations indicating what action, if any, will be taken as a result of study findings as they relate to potential changes to the programs. Energy Division can choose to extend the 60 day limit if the administrator presents a compelling case that more time is needed and the delay will not cause any problems in the implementation schedule, and may shorten the time on a case-by-case basis if necessary to avoid delays in the schedule.”

³ Recommendations may have also been made to the CPUC, the CEC, and evaluators. Responses to these recommendations will be made by Energy Division at a later time and posted separately.

Response to Recommendations (RTR) in Impact, Process, and Market Assessment Studies

Study Title: PG&E Smart Thermostat Program Process Evaluation
Program: Residential
Author: Opinion Dynamics
Calmac ID: PGE0422.01
ED WO: 2160
Link to Report: http://calmac.org/publications/PG%26E_Smart_Thermostat_Evaluation_Final_Report_Calmac_ID_PGE0422.01.pdf


Item #	Page #	Findings	Best Practice / Recommendations (Verbatim from Final Report)	Recommendation Recipient	Disposition	Disposition Notes
				If incorrect, please indicate and redirect in notes.	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.
						<p>The Opinion Dynamics report provides a helpful guide for PG&E as we continually strive to offer impactful products, transform energy efficiency markets, provide strong customer service, and serve as good stewards of rate-payer dollars.</p> <p>Smart Thermostats are our most popular offering by rebate volume under the PLA/REEP program (note: The PLA Program has been renamed the Residential Energy Efficiency Program (REEP) in 2019.) During 2018, PG&E worked to enhance the smart thermostat rebate program and identified many of the same opportunities for improvement that are identified in the report. We agree with the recommendations from this report and discuss below what we have done and will do to implement them.</p> <p>Please note that the workpaper for smart thermostats is currently under revision and will be updated in early 2019. The updates include merging the two measure codes into one, which addresses the need for recommendation 1b below. As part of PG&E's continuous improvement efforts, we will be evaluating the TRC for smart thermostats with the revised workpaper savings values in order to most effectively plan programmatic changes. It is an ongoing challenge to offer products that have workpaper uncertainties, particularly when trying to justify major process/platform improvements that would require budgets and resources.</p>
1a	1, 3	Participants have a difficult time correctly identifying the type of thermostat they replaced, which has implications for program savings. We found differences between the information that participants provided on their rebate application and what they reported on the survey regarding the type of thermostat they replaced. In addition, some participants reported that their previous thermostat was a smart thermostat	We recommend the program focus on improving the online rebate application form and also making program requirements clearer so ineligible customers are disqualified before they receive a rebate. The program should consider the approach we used in the survey where we included thermostat images and descriptions to help respondents correctly classify their previous thermostat.	PG&E	Accepted	<p>PG&E agrees with these recommendations. PG&E has already made a series of changes to its smart thermostat landing page, customer catalog, and through other channels in an effort to address these recommendations and to enhance customer experience. The intention of these changes is to make customers more aware of the eligibility and application requirements before they start the application process. This should help to minimize ineligible or incomplete applications, thus saving the customer's time and conserving resources of our Application Management processing team.</p> <p>PG&E has taken the following actions:</p> <ul style="list-style-type: none"> Overhauled the smart thermostat rebate landing page in order to make eligibility requirements, application requirements, and Terms & Conditions more prominent before customer begins the eRebates application process. These changes were intended to make customers aware from the outset of the requirements so that they do not proceed with an application if they are not eligible for a rebate. Changes to the landing page included:

on the survey, which was not an option on the application but would make them ineligible for the program.

- A section that explains the differences between manual, programmable, and smart thermostats, with pictures:


WHAT'S THE DIFFERENCE BETWEEN A MANUAL, PROGRAMMABLE AND SMART THERMOSTAT? ^

There are three main types of thermostats:




Manual thermostat

You adjust the temperature setting up or down as desired by manually turning a dial or moving a lever.



Programmable thermostat

This thermostat uses a built-in calendar and clock for temperature adjustment by day and time.



Smart thermostat

Does everything a programmable thermostat does. It is also Wi-Fi enabled and automatically adjusts temperature settings for optimal performance.

PLEASE NOTE: Manually operated thermostats contain mercury and need to be disposed of carefully and properly. Locate a safe and free collection site near you, and see if you qualify for an additional \$5 rebate. [Find out more at the Thermostat Recycling Corporation.](#)


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- Included a section on page 3 of the [customer rebate catalog](#) that discusses the differences between different types of thermostats, with pictures:


Rebates at a glance


Rebate Code	Description	Rebate
HV359	ENERGY STAR® Smart Thermostat replacing manually operated thermostat	\$50/ household
HV360	ENERGY STAR Smart Thermostat replacing programmable thermostat	\$50/ household
BW031	ENERGY STAR High-Efficiency Electric Heat Pump Storage Water Heater Uniform Energy Factor (UEF) of 3.11 or greater and/or Energy Factor (EF) of 3.24 or greater	\$300/unit

DEFINITIONS:

 **A manually operated thermostat** allows user to adjust temperature setting up or down as desired by manually turning a dial or moving a lever.

Please note: manually operated thermostats contain mercury which need to be disposed of carefully and properly. To find a safe and free collection site near you, visit recyclehomethermostats.org/california.

 **A programmable thermostat** uses a built-in calendar and clock for temperature adjustment by day and time.


 **A smart thermostat**, in addition to doing everything a programmable thermostat does, is Wi-Fi enabled and automatically adjusts heating and cooling temperature settings in your home for optimal performance.

Uniform Energy Factor (UEF) and Energy Factor (EF) are measures of a water heater's efficiency. UEF and EF are based on recovery efficiency, standby losses and cycling losses. A higher UEF or EF indicates a more efficient water heater.

- A note about the 60-day application deadline prominently listed as the first item under the “Am I eligible for the rebate?” section.

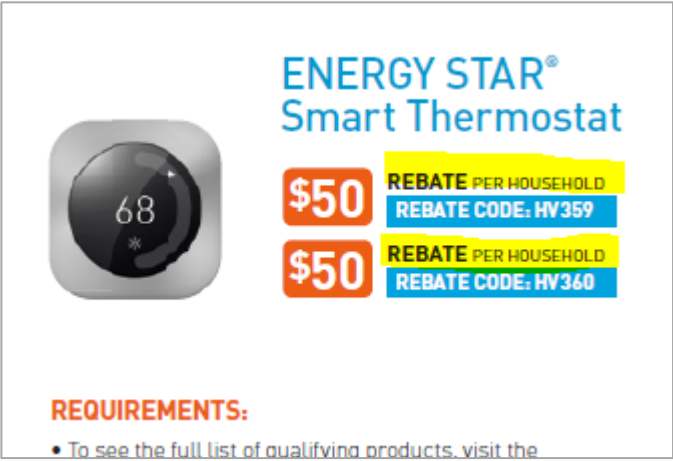
Am I eligible for the rebate?

All ENERGY STAR smart thermostat rebate applications must be received within 60 days from date of purchase.

REBATE REQUIREMENTS 

- Beyond the website, PG&E engaged with retailers and manufacturers on eCommerce improvement, including revising invoice formatting (including on smartphone view) to ensure retailer invoices show all information to meet PG&E’s proof of purchase requirements.
- Improving internal rejection reporting, so that PG&E is able to more adequately diagnose application problems and identify areas of customer confusion.
- Revisiting validation requirements for PG&E’s Application Management processor criteria.
- Included smart thermostats in PG&E’s Summer 2018 energy efficiency marketing campaign to drive traffic to PG&E’s smart thermostat landing page.
- Made the following changes to the eRebates application, as these changes were required across all PG&E rebate programs, including both residential and nonresidential:

					<ul style="list-style-type: none"> ○ Made system changes to ensure that customers who do not check the Terms & Conditions box, fail to include any attachments, or do not select a product are not able to click “Submit” on their application until they complete the required sections. This change allows customers to fix their application before submission, and thus avoid rejection. ○ Changed the product model number field from a free editable field to an intelli-type field so that customers input smart thermostat model numbers that match real product model numbers. <p>As is the case with other energy efficiency programs, we are always working to identify opportunities for improvement and to enhance customer experience. In the past year, we created an internal smart thermostat product rebate roadmap - a mock-up of what a new smart thermostat-specific eRebates application could look like. This roadmap includes many of the recommendations offered in the Opinion Dynamics report, including customer checklists and more delineated application instructions. However, because eRebates is a universal platform used across both PG&E residential and non-residential programs, there are limitations to our ability to customize it to a specific program or product. PG&E will continue to pursue this roadmap where possible, given these system limitations.</p>	
1b			In addition, we would also recommend continuing to require that participants upload pictures of their previous thermostat and comparing it to the self-reported thermostat type. Differences between the image and self-reported thermostat type would alert the program that further adjustments to the application form may be necessary.	PG&E	Accepted	<p>The revised workpaper values for smart thermostats (expected Q2 2019) are anticipated to merge the two measure codes into one, utilizing an average savings claim of both manual and programmable thermostat replacements. This change will eliminate the need to know whether the participant’s previous thermostat was manual or programmable.</p> <p>Since the smart thermostat rebate began, our Application Management processing team has had a process in place to correct customers whose selection of their existing thermostat does not match the photo they attach. PG&E’s Application Management Processors are trained in understanding the differences between the types of thermostats. Processors review all photos submitted with applications. When the product the customer selected does not match the photo they attach, the Processor corrects the measure code selection so that PG&E can claim the correct savings on applications whose product and photo do not match.</p>

2	5	<p>Overall, participants were very satisfied with their smart thermostat and the program’s application process. Across the five surveys, 93% of respondents reported being either extremely satisfied or satisfied with their smart thermostat. Satisfaction with the application process was also high with 88% being either extremely satisfied or satisfied.</p> <p>However, some customers did provide constructive feedback about confusion regarding the program requirements. Specifically, participants were confused by number of thermostats for which they could rebate and were surprised when they later learned that they would only receive a rebate for one thermostat. Many customers with multiple zones in their homes thought that they would get a rebate for each smart thermostat they purchased and installed. Of the participants who reported they were dissatisfied, 45% mentioned application requirements as the reason for their dissatisfaction. In addition, 19% of those who provided feedback at the end of the survey mentioned the same application requirement as a concern. One reason for the confusion was the question within the application form that asks for the number of units purchased. Participants requested that the requirements be more clearly defined within the application form and that PG&E not allow customers to enter multiple thermostats into the form.</p>	<p>We would recommend noting the limit of one rebate per customer more prominently in the description of the rebate and on the application. Additionally, removing the quantity field for the smart thermostat rebate would help lessen the confusion.</p>	PG&E	Accepted	<p>The PG&E customer rebate catalog states in two different sections (pages 3, 4) that rebates are one smart thermostat per household:</p> <div data-bbox="1883 278 2505 633"> <p>Rebates at a glance</p> <table border="1"> <thead> <tr> <th>Rebate Code</th> <th>Description</th> <th>Rebate</th> </tr> </thead> <tbody> <tr> <td>HV359</td> <td>ENERGY STAR® Smart Thermostat replacing manually operated thermostat</td> <td>\$50/ household</td> </tr> <tr> <td>HV360</td> <td>ENERGY STAR Smart Thermostat replacing programmable thermostat</td> <td>\$50/ household</td> </tr> <tr> <td>BW031</td> <td>ENERGY STAR High-Efficiency Electric Heat Pump Storage Water Heater Uniform Energy Factor (UEF) of 3.11 or greater and/or Energy Factor (EF) of 3.24 or greater</td> <td>\$300/unit</td> </tr> </tbody> </table> </div> <div data-bbox="1871 657 2511 1096">  <p>ENERGY STAR® Smart Thermostat</p> <p>\$50 REBATE PER HOUSEHOLD REBATE CODE: HV359</p> <p>\$50 REBATE PER HOUSEHOLD REBATE CODE: HV360</p> <p>REQUIREMENTS:</p> <ul style="list-style-type: none"> To see the full list of qualifying products, visit the </div> <p>Additionally, PG&E will add more information to the smart thermostat landing page and additional lines in the rebate catalog to repeat the one-thermostat-per-household requirement. We expect these changes to be completed in Q1 2019.</p> <p>The internal smart thermostat product rebate roadmap mentioned above includes a proposal to change the editable “Quantity” field in the eRebates application to default to “1.” In this way, a customer would be reminded as they fill out the application that they are only eligible for one rebate. This is not possible in the current eRebates form, but the program team will continue to push to be able to make that change.</p>	Rebate Code	Description	Rebate	HV359	ENERGY STAR® Smart Thermostat replacing manually operated thermostat	\$50/ household	HV360	ENERGY STAR Smart Thermostat replacing programmable thermostat	\$50/ household	BW031	ENERGY STAR High-Efficiency Electric Heat Pump Storage Water Heater Uniform Energy Factor (UEF) of 3.11 or greater and/or Energy Factor (EF) of 3.24 or greater	\$300/unit
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