

Central Hudson Gas & Electric Corp

Residential Natural Gas HVAC: Process Evaluation Summary

Evaluation Conducted by: Applied Energy Group (AEG), DATE: February 2015

PROGRAM SUMMARY

The objective of the Residential Natural Gas HVAC Program is to replace residential natural gas space and water heating equipment with energy efficient options. In addition to the equipment incentives listed in the table below, customers are eligible for \$100 per hour of duct or air sealing, up to \$420, from a Building Performance Institute (BPI) certified SavingsCentral Trade Ally, based upon blower door and/or duct blaster test results. All work must be completed by a Trade Ally.

Equipment Type	Minimum Performance	Rebate
Furnace	AFUE \geq 90%	\$200
	AFUE \geq 94%	\$400
Water Boiler	AFUE \geq 85%	\$500
	AFUE \geq 90%	\$1,000
Steam Boiler	AFUE \geq 82%	\$500
ECM Fan	Installed on qualifying furnace	\$200
Boiler Reset Control	Installed on qualifying boiler	\$100
Indirect Water Heater	n/a	\$300
Programmable Thermostat	Installed with qualifying heating system	\$25

EVALUATION OBJECTIVE AND HIGH LEVEL FINDINGS

An independent evaluation contractor, Applied Energy Group (AEG), designed the 2012-2013 process evaluation to gain a better understanding of program operations, assess the overall effectiveness of program operations and identify areas for improvement. AEG performed the following tasks:

- Reviewed program materials and data.
- Reviewed program tracking methods.
- Updated program logic model and assessed program flow.
- Conducted interviews with Central Hudson staff and third party implementation contractor, ICF International (ICF).
- Conducted focus group/interviews with Trade Allies.
- Conducted surveys of participating customers.

Central Hudson spent almost the entire 2012 budget and achieved approximately 75 percent of the Dtherm savings target and 55 percent of the participation goal. Between January 1st and June 30th, Central Hudson spent approximately 45 percent of the budget and achieved 52 percent of the Dtherm target while achieving 58 percent of the participation goal. Between January 1, 2012 and June 30, 2013, 574 customers participated in the Residential Gas HVAC Program and 1,067 measures were rebated.

EVALUATION RECCOMENDATIONS AND PROGRAM ADMINISTRATOR RESPONSE

The following recommendations were made by the evaluators conducting this study. Central Hudson's initial response to these recommendations is also summarized below and will be tracked over time.

Recommendation 1: Modify Trade Ally Participating Contractor Agreement

Approximately 46 percent of the SavingsCentral Trade Allies did not submit a rebate application between January 1, 2012 and June 30, 2013. The Trade Allies interviewed expressed concern regarding the list on the Central Hudson website, noting that the list is quite long and that there may be HVAC contractors that are not upselling energy efficient systems or performing quality work. Additionally, Central Hudson does not require proof that the HVAC contractors have insurance.

AEG recommends that Central Hudson and ICF consider modifying the Trade Ally Participating Contractor Agreement to (1) require proof of insurance and (2) require at least two customer references. ICF should require that all Trade Allies provide proof of insurance on an annual basis.

Response to Recommendation 1: With the help of ICF, we are in the midst of obtaining proof of insurance from all of our Trade Ally contractors. If this proof of insurance is not received then the contractor will not be recognized as a Central Hudson Trade Ally. For every Trade Ally that sends in the Proof of Insurance we have set it up with their insurance company to send us a proof of insurance on an annual basis automatically. Central Hudson feels like working towards customer references for each Trade Ally will not facilitate any activity with preferred Trade Ally's. The "Gold, Silver, and Bronze" tiers are a testament to the activity that each Trade Ally has in our programs.

Recommendation 2: Continue Random Inspections of Trade Ally Projects

AEG recommends that ICF continue to inspect the first four projects completed by a new Trade Ally and a random 10 percent of Trade Ally projects. The majority of participants are made aware of the program via word of mouth or the Trade Ally. Therefore, it is crucial that customers are satisfied with the program and work completed by the Trade Ally. This process is fully implemented.

Response to Recommendation 2: This process is fully implemented.

Recommendation 3: Improve Application Processing QA/QC

The program requires that all work is completed by a SavingsCentral Trade Ally. Three percent of measures rebated were installed by non-SavingsCentral Trade Allies. Programmable thermostat and boiler reset control incentives are offered to participants installing a qualified heating system. Of the programmable thermostats and boiler reset controls installed:

- 9 percent of thermostats rebated through the Residential Electric HVAC and Residential Natural Gas HVAC Programs were not installed with a qualifying heating or cooling system.
- 1 boiler reset control rebated was not installed with a qualifying boiler.

AEG recommends that Central Hudson work with ICF to ensure the rebate processing system adheres to the requirement that systems are installed by a Trade Ally and programmable thermostats and boiler reset controls are installed with a qualifying heating system. The total quantity of programmable thermostats or boiler reset controls incentivized should not exceed the total quantity of heating systems installed.

Response to Recommendation 3: Central Hudson will look into this and work with ICF to implement improvements to hopefully avoid or minimize this from happening again in the future.

Recommendation 4: Consider Modifying Equipment Offerings and Incentives

In 2012, 47 percent of furnaces rebated had an AFUE $\geq 92\%$ and 43 percent had an AFUE $\geq 95\%$ with an ECM fan. As of June 30, 2013, 95 percent of furnaces rebated had an AFUE $\geq 92\%$. Eighty-eight percent of boilers were water boilers AFUE $\geq 90\%$. Steam boilers accounted for only 2 percent of rebated boilers.

AEG recommends that Central Hudson work with ICF to determine if furnaces with an AFUE $\geq 90\%$ should be removed from the program and/or if equipment rebates should be modified to encourage the purchase and installation of high efficiency systems.

Response to Recommendation 4: Central Hudson is currently in the process of reviewing rebate and participation levels to possibly adjust the incentive level for particular measures, if needed.

Recommendation 5: Remove the Central Hudson Logo from SavingsCentral Website

The Central Hudson logo is available for download on the SavingsCentral website. AEG recommends that Central Hudson remove the logo from the website to minimize access to the logo and unapproved use of the corporate logo. Participating SavingsCentral Trade Allies can request the Central Hudson logo from ICF as needed.

Response to Recommendation 5: As a Company, our branding in our service territory is extremely strong. We understand that this could cause unapproved use of our logo. We will work with our Corporate Communications department to create a way to minimize this risk.

Recommendation 6: Consider Providing Incentives for ENERGY STAR® Appliances

Sixty-seven percent of participants surveyed suggested providing incentives for ENERGY STAR® appliances. AEG recommends that Central Hudson work with ICF to determine if ENERGY STAR® appliances are cost-effective and a viable addition to Central Hudson portfolio.

Response to Recommendation 6: Central Hudson will revisit prior Orders and review all measures that are approved. From there we will consider adding ENERGY STAR® measures to the program.

Recommendation 7: Continue SavingsCentral Marketing Campaigns to Customers and Trade Allies

The majority of program participants learned about the program from a SavingsCentral Trade Ally or word of mouth. However, only 11 percent of survey respondents reported that they were aware of other programs offered by Central Hudson.

AEG recommends that ICF continue to provide clear, accessible information to participating SavingsCentral Trade Allies. Central Hudson and ICF should also continue to aggressively promote this program as part of the SavingsCentral brand and inform customers of other energy efficiency programs.

Response to Recommendation 7: Central Hudson will give the SavingsCentral website a thorough review to determine if changes are warranted. The SavingsCentral brand appears on all ICF marketing pieces that are sent to customers and Trade Allies.

DETAILED PROCESS EVALUATION FINDINGS

The Residential Natural Gas HVAC Program was implemented by Honeywell until ICF took over on July 1, 2012. Since the transition, the following changes have been made to the program:

- **Revised Rebate Application.** ICF combined the rebate application for the Residential Electric and Natural Gas HVAC Programs.
- **Online Rebate Application.** Trade Allies have the option of completing the customer application in VisionDSM via an online platform rather than submitting a paper application.
- **Rebate Processing.** ICF issues incentives to customers upon Central Hudson approval of application batches and is reimbursed by Central Hudson within 30 days.

The Residential Natural Gas HVAC Program is driven by Central Hudson's aggressive and creative advertising. ICF and Central Hudson work collaboratively to market the program. According to the participant survey, participants first became aware of the program via SavingsCentral Trade Ally (44 percent) and word of mouth (23 percent).

Ninety percent of participants surveyed noted that they were satisfied with the Residential Natural Gas HVAC Program. While the participants surveyed are satisfied with the program overall and most program components, the types of eligible equipment and the rebate processing time had the lowest satisfaction rates. ICF has decreased the rebate processing time since becoming the implementation contractor.

Central Hudson and the Trade Allies are very satisfied with ICF's performance. Central Hudson noted that the transition to ICF was fairly smooth. Central Hudson and the Trade Allies reported

that ICF is easy to work with, knowledgeable and very responsive. The two parties are particularly satisfied with the Trade Ally outreach, noting that the ICF staff is very helpful and responsive to requests for information and/or training.

Nearly all participants surveyed (95 percent) reported that they would recommend the Trade Ally who performed the installation. Respondents were pleased with the quality of work, customer service, and professionalism displayed by the Trade Ally. The three respondents that would not recommend the Trade Ally were dissatisfied with the level of customer service, the Trade Ally's unprofessionalism and that the Trade Ally did not finish on time.

EVALUATION METHODS AND SAMPLING

AEG administered a 10 to 12 minute telephone survey to a sample of program participants to assess program experience and awareness, customer satisfaction, barriers to participation, free ridership and areas for potential program improvement.

Between January 1, 2012 and June 30, 2013, Central Hudson rebated 1,067 measures to 574 participants for the Residential Natural Gas HVAC Program. Central Hudson provided data for all 1,067 measures rebated, including customer name, account number and telephone number. AEG scrubbed the participant data to remove duplicate natural gas Central Hudson account numbers from the participant list, thereby accounting for customers that received more than one rebate. The scrubbed participant data included 574 unique participants. AEG calculated the sample size at a 90 percent confidence interval with an error margin of +/-10 percent. The sample size was calculated at 61. Participants were then randomly selected based on unique identifiers determined by Microsoft Excel's random number generator. Program participants were contacted based on the unique identifier, beginning with the smallest number. Sixty-one surveys were completed.

AEG updated the program logic model based on interviews with Central Hudson program staff and the third-party implementer. The model shows the linkages among the program's activities and outputs. There are five main activities in the Residential Natural Gas HVAC Program, including: develop program infrastructure, market program, install measures, process rebate application and evaluate program.