

# Central Hudson Residential Electric HVAC Program: Process Evaluation Summary

*Evaluation Conducted by:* Applied Energy Group (AEG), *DATE:* December, 2011

## PROGRAM SUMMARY

The Residential Electric HVAC Program targets residential customers that are interested in purchasing or replacing their heating or cooling equipment with the energy efficiency options offered by the program. Measures that are eligible for rebates include central air conditioners, central air source heat pumps, electronically commutated motors, electric heat pump water heaters, and programmable thermostats. In addition, incentives of up to \$600 are available to customers to install duct and air sealing from qualified contractors.

## EVALUATION OBJECTIVE AND HIGH LEVEL FINDINGS

The objective of this process evaluation conducted by an independent evaluation contractor, Applied Energy Group (AEG), is to examine program processes and customer responses to the program between 2009 and 2011. The evaluation identifies the methods used for gathering data and measuring program results; and makes recommendations for program improvements.

Key evaluation findings include:

- 60 percent of customers install more than one measure. No customers have received duct sealing services.
- The majority of central air conditioners rebated are Tier II. Tier II Central Air Conditioners have a SEER  $\geq$  16.0 and an EER  $\geq$  13.0.
- In the absence of the program, 51 percent of participating customers would have been “very likely” to purchase the exact same equipment; 12 percent would have been “somewhat likely.”
- 75 percent of contractors surveyed believe customers would not have installed high efficiency equipment without the program because of the high upfront costs of efficient measures.
- Approximately 24 percent of customer installations were completed by 3 trade allies.

## EVALUATION RECOMMENDATIONS 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:** Improve Rebate Processing Times

Although 60 percent of participating customers surveyed received their rebates within six to eight weeks or less, a significant percentage of customers (25 percent) said that it took between three months to six months to receive their rebate. It is unclear what is driving this delay, especially because this timeframe is not consistent with the natural gas program findings.

AEG recommends that Central Hudson review the rebate process with Honeywell to identify the cause of this delay. Based on the review, Honeywell should take steps to reduce the time it takes, on average, for customers to receive their rebates to four to six weeks from the time the rebate is submitted.

**Response to Recommendation 1:** Central Hudson currently has a new implementation contractor. Our prior contractor would withdraw money from an account that Central Hudson placed incentive money into. If the account was low and did not have money to cover incentives, there was a waiting period until the account was re-issued with incentive dollars. Now, our implementation contractor

covers the cost of the incentives upfront and Central Hudson reimburses them. This allows for quicker turn around in rebate processing.

**Recommendation 2:** Conduct a Residential Appliance Saturation Survey and Market Potential Study

AEG recommends that, within the next year, Central Hudson conduct a Residential Appliance Saturation Survey (RASS) to identify the type, age and efficiency level of appliances and HVAC equipment currently being used by households within Central Hudson's territory. The RASS will inform program design changes and measures to be considered for inclusion in Central Hudson's Residential Electric HVAC Program. Using the results from the RASS, a Market Potential Study should be completed that quantifies the quantity and targeted end uses where savings can be realized.

**Response to Recommendation 2:** Central Hudson is currently conducting a Residential Appliance Saturation Survey, RASS. The analysis is on track to be completed by 3/31/2013.

**Recommendation 3:** Continue Aggressive Marketing Campaign to Customers and Trade Allies

The changes to Central Hudson's marketing strategy over the last year have been positive and should be continued. Although there is evidence that customers are becoming more aware of energy efficiency, customers do not necessarily identify program offerings with the Savings Central brand.

Central Hudson should continue to provide clear, accessible information to its residential customers on the benefits of installing energy efficient equipment and systems. Central Hudson should continue to aggressively promote this program as part of the Savings Central brand and to inform customers of Central Hudson's other energy efficiency programs. Honeywell should continue to aggressively market the program to trade allies. In order to track changes in customer awareness moving forward, Central Hudson should include a question on the rebate application that asks customers to identify how they learned about the program.

**Response to Recommendation 3:** Central Hudson continues to promote Energy Efficiency programs under the Savings Central branding. We periodically send customers information on current and new offerings within each program, and target according to heat type. We have also set up a system for Trade Allies so that their continued effort to support and promote programs is highlighted on our Savings Central website.

**Recommendation 4:** Create a Flexible System for Completing and Submitting Rebate Applications

Although the majority of contractors mentioned that the rebate application process is not burdensome, several had suggestions for improving the process and making it more consistent with how business operates today.

Honeywell should create a mechanism for contractors to complete applications online and give them the option of submitting the rebate application online or of filling out the application online and printing it through Adobe Acrobat. This would streamline the application process for many contractors and potentially end the problems associated with handwriting (e.g. not enough space on the rebate forms, illegible handwriting).

**Response to Recommendation 4:** Central Hudson changed implementation contractors in 2011 and implemented a new system for customers to submit their rebate applications online with instant feedback that it's been received.

## **DETAILED PROCESS EVALUATION FINDINGS**

Overall, participating customers and trade allies are satisfied with the Residential HVAC Program and would like to see it continue. Both participating customers (89 percent) and trade allies (73 percent) noted that they were somewhat satisfied with rebate application processing. Several trade allies recommended that the application be simplified and web-based application submission be made available. Participating customers surveyed recommended that Central Hudson offer rebates on additional measures, such as ENERGY STAR appliances, efficient lighting and insulation.

## **EVALUATION METHODS AND SAMPLING**

AEG designed Phase II of the residential electric HVAC program evaluation to analyze program processes and customer and contractor responses to the program. The study identifies methods for gathering data and measuring program results. It also makes recommendations for program improvements. Estimates of energy savings (impact evaluations) are not a part of the evaluation. However, some estimates of the impacts have been provided in the report. To arrive at the final recommendations, AEG carried out the following research activities:

- AEG reviewed current program materials and relevant past studies for this report. As part of this review, the evaluation team reviewed documents provided by Central Hudson including program marketing materials (numbers, types, and means of distribution), program logic model, and key findings from the Residential Appliance Saturation Study (“RASS”) conducted in 2006.
- AEG reviewed current program tracking and reporting carried out by Central Hudson program staff and Honeywell.
- AEG updated the program logic model based on interviews with Central Hudson program staff and third-party program implementers.
- AEG conducted a comprehensive, group interview with Central Hudson program staff in June 2011.
- AEG interviewed Honeywell in August 2011. The interview provided information on program implementation activities, scheduling, program data and tracking methods, the relationship between the program implementation contractor and participating HVAC contractors, and barriers to increased participation.
- 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. AEG calculated the sample size at a 90 percent confidence interval with an error margin of +/-10 percent. 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.