

Central Hudson Gas & Electric Corp Appliance Recycling: Process Evaluation Summary

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

PROGRAM SUMMARY

The objective of the Central Hudson Residential Appliance Recycling Program is to provide a collection and recycling service to Central Hudson customers for old refrigerators, freezers, and window & through-wall air conditioner units. Central Hudson offers the program to customers in conjunction with ARCA and Sears Logistics, third-party implementation contractors. Appliances are picked-up at the customer premise or dropped-off at recycling events sponsored by Central Hudson. Residential customers receive a \$50 incentive to recycle their old, working refrigerators and freezers and a \$50 to \$100 rebate to purchase a new ENERGY STAR qualified room air conditioner when they recycle their old, working room air conditioner.

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.
- Conducted surveys of participating customers.

Central Hudson spent approximately 65 percent of the 2012 budget while achieving 175 percent of the savings target. Between January 1st and June 30th 2013, Central Hudson spent approximately 15 percent of the budget and achieved the 57 percent of the MWh target. In 2013, the program realized approximately 68 percent of the 2012 energy savings on a monthly basis. Based on historic participation, the program is anticipated to achieve the MWh savings target. A reporting error was identified in June/July 2014 and the participant and energy savings data corrected. Between January 1, 2012 and June 30, 2013, 4,526 appliances were recycled and 549 room air conditioners purchased through the Residential Appliance Recycling Program.

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 Reporting QA/QC

A reporting error was identified in June/July 2014, resulting in a correction of program participation and energy savings. The 2013 room air conditioner units recycled and purchased were significantly underreported.

AEG recommends that Central Hudson work with ARCA to determine the reporting error that occurred. Upon identification of the reporting error, ARCA personnel should conduct additional QA/QC of all reporting data to ensure the error has been corrected.

Response to Recommendation 1: ARCA has implemented a new tracking system for their programs. This new system will minimize the risk of under/over reporting in the future.

Recommendation 2: Improve Program Tracking Data

The Residential Appliance Recycling Program data is tracked by ARCA/SLS, Sears' retailers and Parago. Critical data appears to be missing from the program tracking data.

- Room air conditioner unit type (window versus wall) is often missing. Unit type is needed to determine energy savings.
- Customer account numbers are often missing or do not have the correct number of digits, particularly for room air conditioners recycled or purchased. Customer eligibility is determined utilizing electric account numbers.
- The ATO number and unit type is not tracked for room air conditioners purchased.

AEG recommends that ARCA work with the sub-contractors to ensure that all necessary data is collected and tracked. Parago should track all data collected on the rebate application and 'Proof of Recycling' certificate.

Response to Recommendation 2: We have worked with ARCA to include the air conditioner type (wall vs window) for all air conditioning units moving forward. We are working with ARCA to include account numbers for all transactions. This process is fully implemented.

Recommendation 3: Continue SavingsCentral Marketing Campaigns

According to the participant surveys, participants first became aware of the program via bill inserts, mall/store advertisements and word of mouth. Central Hudson should continue to aggressively promote the Residential Appliance Recycling Program as part of the SavingsCentral brand and inform customers of Central Hudson's other energy efficiency programs by providing clear and accessible information to customers on how Central Hudson can help them save money and energy.

Response to Recommendation 3: We use our bill inserts and other publications as a means to promote our SavingsCentral brand as well as all of our program offerings. We recognize that our marketing tactics are the vehicle to success and exposure of our programs and use those means of communication as much as possible.

Recommendation 4: Partner with the U.S. Environmental Protection Agency

AEG recommends that Central Hudson explore joining the U.S. Environmental Protection Agency's Responsible Appliance Disposal (RAD) Program. The voluntary partnership program protects the ozone layer and reduces emissions of greenhouse gases by recovering ozone-depleting chemicals from old refrigerators, freezers, window air conditioners and dehumidifiers. The RAD program publicly recognizes member achievements, provides resources for members and may help partners meet voluntary commitments/pledges to reduce greenhouse gas emissions.

Response to Recommendation 4: Central Hudson will look into joining the U.S. Environmental Protection Agency's Responsible Appliance Disposal (RAD) Program in the future.

DETAILED PROCESS EVALUATION FINDINGS

The Residential Appliance Recycling Program is driven by Central Hudson's aggressive and creative advertising. ARCA and Central Hudson work collaboratively to market the program. ARCA tracks all marketing activities and analyzes the marketing campaigns to determine the return on investment and plan for future campaigns. According to the participant surveys, participants that recycled a refrigerator/freezer first became aware of the program via bill insert (36 percent) and word of mouth (33 percent) while participants that recycled a room air conditioner first became aware of the program via the mall/store advertisement (29 percent) and word of mouth (20 percent).

Between 70 and 85 percent of participants surveyed noted that they were very satisfied with the Residential Appliance Recycling Program. While the participants surveyed are satisfied with the program overall and most program components, the rebate processing time and appliances eligible for the program had the lowest satisfaction rates. Room air conditioner survey respondents were also somewhat dissatisfied with the rebate application.

Nearly all participants surveyed would recommend the program to other customers (97 percent of refrigerator/freezer survey respondents and 98 percent of room air conditioner respondents). Program participants surveyed noted they would recommend the program because it is a good program, easy to participate and results in electricity and bill savings.

EVALUATION METHODS AND SAMPLING

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

ARCA originally provided data for 4,275 appliances recycled and 522 room air conditioners purchased between January 1, 2012 and June 30, 2013. A reporting error was identified in June/July 2014; the corrected participant data included 4,526 appliances recycled and 549 room air conditioners purchased between January 1, 2012 and June 30, 2013. Detailed customer data, including customer name, account number and telephone number, were provided for recycled refrigerators and freezers.

AEG scrubbed the original data to remove duplicate Central Hudson account numbers and participant addresses from the list, thereby accounting for customers that recycled more than one appliance. The scrubbed data included 3,859 unique electric accounts. AEG calculated the sample sizes at a 90 percent confidence interval with an error margin of +/-10 percent. The sample sizes were calculated at 67 for the refrigerator/freezer survey and 60 for the room air conditioner survey. 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-seven refrigerator/freezer and 60 room air conditioner 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 seven main activities in the Residential Appliance Recycling Program, including: develop program infrastructure, market program, refrigerator/freezer recycling, room air conditioner recycling, recycle appliances, process customer incentive, and evaluate program.