

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

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

## PROGRAM SUMMARY

The Central Hudson Residential Appliance Recycling Program has the objective to provide a collection and recycling service to Central Hudson customers in order to capture significant energy savings and environmental benefits by recycling old refrigerators, freezers, and window & through-wall air conditioner (AC) units. Refrigerators and freezers are removed from the customer's premises by the Appliance Recycling Centers of America ("ARCA"), the third-party program implementation contractor, and ARCA's subcontractor, Sears Logistics.

## EVALUATION OBJECTIVE AND HIGH LEVEL FINDINGS

An independent evaluation contractor Applied Energy Group (AEG) designed the 2010 – 2011 process evaluation to examine program processes and customer responses to the program. The evaluation identifies the methods used for gathering data and measuring program results; and makes recommendations for program improvements. To arrive at the final recommendations, 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 program implementer;
- Conducted surveys with participating customers; and
- Accompanied implementer staff on a ride-along

As of October 2011, 6,512 appliances have been recycled, 64 percent were refrigerator, 19 percent freezers and 17 percent room air conditioners. Based on the participant survey, refrigerators and/or freezers were being used in 84 percent of residences prior to being recycled. According to the survey AEG administered to participating customers, 35 percent of participants learned about the programs from a Central Hudson bill insert, followed by newspaper advertisements (16 percent), ARCA (12 percent) and word of mouth (11 percent). Overall, participants are highly satisfied with the Residential Appliance Recycling program and would recommend the program to others (98 percent). Customers are strongly motivated by the opportunity to save money and energy.

## 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:** 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 potential for the Appliance Recycling 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 1:** AEG is currently in the midst of conducting a Residential Appliance Saturation Survey. 4,000 surveys were sent out on January 22, 2013 with the due date of February 8, 2013. As an incentive for the customer to fill out the surveys, AEG will be sending out \$10 gift cards to any customer who completes and returns the survey.

**Recommendation 2:** Central Hudson promotes their energy efficiency programs through the Savings Central brand. Central Hudson should continue to aggressively promote the Residential Appliance Recycling Program under the Savings Central brand and inform customers of Central Hudson's other energy efficiency programs providing clear and accessible information to customers on how Central Hudson can help them save money and energy.

**Response to Recommendation 2:** Savings Central has and will continue to be aggressively promoted and easily accessible to customers.

**Recommendation 3:** Central Hudson's room air conditioner kick-off event held Memorial Day weekend 2010 was very successful. The event accounts for 58 percent of all room air conditioners recycled in 2010. As of October 2011, the number of room air conditioners recycled was 208 as compared to the 915 units recycled in 2010. We recommend that Central Hudson hold an annual room air conditioner recycling event in the spring at multiple Sears' retailers to encourage increased program participation.

**Response to Recommendation 3:** Central Hudson will be holding an air conditioner recycling turn-in event in 2013 during the Memorial Day weekend at multiple Sear's stores around our service territory.

**Recommendation 4:** We recommend that ARCA track detailed room air conditioner data, for the recycled units and new ENERGY STAR units, to better understand sales trending and types of units customer purchase. The detailed data tracked for units picked-up by Sears Logistics is often not completed for units dropped-off at Sears' retailers. This data should be collected, including unit efficiency, brand, model and size.

**Response to Recommendation 4:** ARCA is currently tracking whether the unit is a window or through the wall unit. We track these units when dropped off at Sears, picked up at the home, or at any AC turn in event.

**Recommendation 5:** Program participants recommended offering rebates for other appliances, including clothes washers, clothes dryers, dishwashers, hot water heaters and stoves. We recommend that Central Hudson evaluate the cost-effectiveness of providing rebates for other ENERGY STAR appliances.

**Response to Recommendation 5:** Central Hudson has not investigated offering rebates for other appliances than we do now through the Appliance Recycling program. We plan on investigating this in 2013.

**Recommendation 6:** ARCA would like to focus on increasing the number of customers that register online versus the call center. However, Central Hudson's current contract with ARCA is based on a flat fee, regardless of whether the customer registers via the call center or online. Therefore, Central Hudson would not benefit from any cost savings realized from increasing customer online registration under the current contract. AEG recommends exploring the cost savings potential of identifying and addressing the barriers to customer online registration, dependent upon Central Hudson being able to modify the contract with ARCA so that they can fully realize any cost savings.

**Response to Recommendation 6:** Central Hudson has not explored the cost benefit of online registration versus the call center. The ARCA contract has a flat fee for registration no matter online or through the call center. This option can be explored towards the tail end of the contract expiration date.

**Recommendation 7:** 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 7:** Central Hudson is currently not a member of RAD but will explore in the future.

## **DETAILED PROCESS EVALUATION FINDINGS**

The program is driven by Central Hudson's advertising and community outreach, which includes bill inserts, print and electronic advertisements, television and radio, media and community events, and direct mail. According to the survey AEG administered to participating customers, 35 percent of participants learned about the programs from a Central Hudson bill insert, followed by newspaper advertisements (16 percent), ARCA (12 percent) and word of mouth (11 percent).

Overall, participants are highly satisfied with the Residential Appliance Recycling and would recommend both the program to others (98 percent). Customers are strongly motivated by the opportunity to save money and energy. According to the customer survey, 24 percent of customers participated in the program because they had an opportunity to save money, 28 percent needed a new refrigerator and/or freezer, and 27 percent wanted to save energy.

Thirty-two (32) percent of participants feel that the program is good the way it is and did not have suggestions for improvements. Recommendations for program improvements included more publicity/advertising (25 percent) and offering financial incentives for additional appliances (12 percent), such as clothes washers, clothes dryers, dishwashers, hot water heaters and stoves.

## **EVALUATION METHODS AND SAMPLING**

AEG reviewed current program documents and processes for this analysis including the program logic model, marketing activities, program implementation plan, and program performance data. The review served as the basis for understanding whether the program has been implemented as planned and is on track to meet its energy savings goals. 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, outputs, key program stakeholders and outcomes and highlights potential external influences and program inputs.

ARCA and Sears Logistics collect the following participation and appliance data:

- Scheduling Process.
  - Order Date, the participant contacted ARCA to schedule an appointment.
  - Date Scheduled, the appointment scheduled.
  - Pick-Up Date, Sears Logistics picks-up the appliance.
  - Cancel Date, the participant cancelled the scheduled appointment (if applicable). If the participant cancels, the reason for cancellation is noted based on preselected options.
- Appliance Data.
  - Unit sequence number. If more than one unit is collected, the units are labeled in sequential order.
  - Unit type (refrigerator, freezer and/or air conditioner).
  - Unit location in the home.
  - Unit details, including brand, model, color, size (cubic feet), amps, defrost type and age.
  - Primary or secondary unit