



Central Hudson Gas & Electric Corporation

# Home Energy Comparison Report Program

2012-2013 Process Evaluation • February 2015



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## Executive Summary

Applied Energy Group, Inc. (AEG) was retained by Central Hudson Gas & Electric Corporation ("Central Hudson") to conduct a process evaluation of its Home Energy Comparison Report Program. The Home Energy Comparison Report Program promotes energy efficient behavior to a targeted group of residential customers. Participating customers receive bi-monthly home energy reports that provide information about household energy usage and energy saving action tips.

AEG designed the 2012-13 process evaluation to examine program processes and customer responses to the program. The evaluation identifies methods 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 Opower
- Conducted surveys of participating customers

### Summary of Key Findings

As of December 31, 2013, there were 102,052 households that received Home Energy Comparison Reports and 38,796 households in the control group. According to Opower, the household opt-out rate has remained low at approximately 1 percent. The number of households that opted-out of the program has decreased since the fall of 2012.

Opower selected 133,073 customers to receive home energy reports. Opower analyzed customer billing data as well as third party demographic and geographic parcel data to determine which regions within Central Hudson's service territory to target. Customers were selected using two sets of eligibility criteria:

- *Site eligibility*: Ensured a site can be used in the neighbor comparison and that customers at the site could potentially be recipients.
- *Customer eligibility*: Ensured the customer had sufficient energy usage history with the utility.

The selected customers were randomly assigned to a control group or a recipient group (i.e. receive Home Energy Comparison Reports).

Central Hudson spent the entire budget in 2012, exceeding the electric savings goal and achieving 83 percent of the natural gas savings goal. As of June 30, 2013, Central Hudson spent 45 percent of the budget, achieving 70 percent of the electric savings goal and 44 percent of the natural gas savings goal.

According to survey results, participants are satisfied with the program and 84 percent of customers read all of the Home Energy Comparison Reports. More than half of survey respondents have taken steps to reduce their household energy use in the last two years (62 percent), primarily by adjusting the thermostat temperature, turning off lights more frequently, and taking shorter showers. The majority of survey respondents have not participated in another Central Hudson program.

## Recommendations

AEG has recommendations on how to improve the program. These include:

### Customize Home Energy Comparison Reports

The Residential Energy Comparison Report Program was launched in June 2011 and has been sending bi-monthly reports to the same participants since that time. The implementation contractor, Opower, develops the home energy comparison reports, selects program participants and tracks participation. Central Hudson has found it difficult to change report content and update the energy saving action tips. The majority of survey respondents noted that the energy saving action tips were somewhat useful, with 12 percent finding them very useful and 6 percent finding them not useful.

AEG recommends that Opower work with Central Hudson to update energy saving action tips to keep participants engaged and to determine if reports can be customized to targeted specific households. For example, customizing action tips based upon household energy usage or socioeconomic indicators.

### Improve Data Request Response

Central Hudson staff cannot access the Opower tracking system or view program data and data requests typically take 3 to 4 weeks. AEG recommends that Opower work to provide Central Hudson staff with at least read only access to the tracking system and reduce the amount of time it takes to generate a data request response.

### Integrate Other Central Hudson Programs

The Home Energy Report Program provides an opportunity to promote other energy efficiency programs offered by Central Hudson. The Home Energy Reports and Home Energy Reporting website should be customized to take full advantage of any potential cross-program synergy.

## 1. Introduction

Applied Energy Group, Inc. ("AEG") was retained by Central Hudson Gas & Electric Corporation ("Central Hudson") to conduct a process evaluation of its Home Energy Comparison Report Program. The program is part of Central Hudson's effort to help the State of New York meet its goal of reducing statewide electricity usage by 15 percent by 2015.<sup>1</sup> Central Hudson is a regulated transmission and distribution utility serving approximately 300,000 electric customers and 75,000 natural gas customers in New York State's Mid-Hudson River Valley, which extends from the suburbs of metropolitan New York City to the Capital District of Albany.

This report describes the key findings from the Home Energy Comparison Report Program process evaluation and provides recommendations for program improvement. Section 2 provides a program overview, Section 3 presents the evaluation approach and Section 4 presents the program logic model and flow. Section 5 presents the key findings, including program performance and program tracking. Section 6 provides recommendations.

## 2. Program Overview

The Home Energy Comparison Report Program is a behavioral modification program that promotes residential energy efficiency by influencing consumer behavior. Targeted customers receive home energy reports approximately every other month. The reports provide information about household energy usage compared with the average use of neighbors with similar household characteristics as well as energy saving action tips. The third-party implementation contractor, Opower, develops the home energy comparison reports, selects program participants and tracks participation.

Central Hudson targeted 110,000 residential customers to receive the home energy reports over a 15-month period. The targeted customers were selected based on energy consumption patterns, housing data, past program participation and demographic data. Approximately 80,000 electric-only customers receive electric only reports and 30,000 natural gas and electric customers receive combination reports. The targeted customers are able to opt-out of the program at any time.

The New York Department of Public Service ("DPS") approved an electric budget of \$3,596,776 and a natural gas budget of \$1,138,984 for 2012-2015, with a cumulative program energy savings goal of 48,000 MWh and 80,000 decatherms ("Dtherms").<sup>2</sup>

**Table 1 Annual Program Goals**

	2012	2013	2014	2015
MWh Savings Goal	12,000	12,000	12,000	12,000
Dtherm Savings Goal	20,000	20,000	20,000	20,000

<sup>1</sup> The New York State Department of Public Service ("DPS") established the energy efficiency portfolio standard on June 23, 2008. As part of this portfolio standard, the DPS mandated New York State gas and electric utilities and the New York State Energy Research and Development Authority ("NYSERDA") to administer energy efficiency programs.

<sup>2</sup> Central Hudson Gas & Electric Corp. Energy Efficiency Program Portfolio Implementation, Marketing, Outreach & Education Plan Authorized Programs for 2012 – 2015. Revision August 2013.

**Table 2 Electric Budget**

	2012	2013	2014	2015
General Administration	\$60,000	\$60,000	\$60,000	\$60,000
Direct Program Implementation	\$794,235	\$794,235	\$794,235	\$794,235
Evaluation	\$44,959	\$44,959	\$44,959	\$44,959
<b>Total Electric Budget</b>	<b>\$899,194</b>	<b>\$899,194</b>	<b>\$899,194</b>	<b>\$899,194</b>

**Table 3 Natural Gas Budget**

	2012	2013	2014	2015
General Administration	\$14,000	\$14,000	\$14,000	\$14,000
Direct Program Implementation	\$270,746	\$270,746	\$270,746	\$270,746
Evaluation	\$14,986	\$14,986	\$14,986	\$14,986
<b>Total Budget</b>	<b>\$299,732</b>	<b>\$299,732</b>	<b>\$299,732</b>	<b>\$299,732</b>

Central Hudson is an active participant on the Energy Efficiency Program Administrator Collaborative with NYSEERDA and the other New York State utilities. Central Hudson is an active participant on the Steering Committee and working groups discussing double dipping / counting, referrals, contractor qualifications, training, and collaborative outreach. Central Hudson has participated in numerous conference calls and meetings with the other utilities in New York State to discuss program operation and structure to minimize market confusion and promote best practices.

### 3. Evaluation Methodology

AEG designed the process evaluation to examine program processes and customer responses to the program. The focus of the process evaluation activities was to gain a better understanding of program operations, assess the overall effectiveness of program operations, and identify areas for program improvement. The process evaluation was designed to comply with the *New York Evaluation Plan Guidance for EEPS Program Administrators* and the *New York State Process Evaluation Protocols*.

The evaluation was guided by the following key researchable issues:

- Are Central Hudson's requirements being effectively communicated to the program implementer and are those requirements adhered to?
- Does the program implementer have sufficient resources to effectively implement the program?
- Is the tracking system effective for documenting and reporting program progress?
- Is the program achieving energy savings goals?
- What report content resonates with customers?
- Are customers satisfied with the program?
- What are the areas for improvement?
- Have the reports generated interest in other Central Hudson programs? In other energy efficiency actions?

To arrive at the final recommendations in this report, AEG undertook the following activities:

#### Program Materials and Data

AEG reviewed current program documents and processes including, but not limited to, the 2012-2015 implementation plan, the third-party implementer processes, sample Home Energy Comparison

Reports, and program 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.

### Program Flow

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.

### Program Tracking System

AEG reviewed Opower's program tracking and reporting. AEG also reviewed Central Hudson's tracking database and the reports submitted to the New York DPS.

### Central Hudson Staff Interview

AEG conducted a comprehensive, group interview with Central Hudson program staff in August 2013 to gather staff impressions of program implementation activities, program performance, marketing and customer awareness, and opportunities for program improvements. Individual interviews with program staff, as well as informal discussions, were conducted between August and October 2013. The individual interviews focused on program delivery issues, program performance, potential areas of improvements and overall program effectiveness.

### Third-Party Implementer Interview

As third-party implementation contractor, Opower is responsible for program delivery, developing and issuing the Home Energy Comparison Reports, and program tracking. AEG interviewed Opower in November 2013. The interview provided information on program implementation activities, tracking methods, report content and customer retention. An interview guide can be found in Appendix A.

### Participating Customer Surveys

AEG administered a 10 to 12 minute telephone survey to a sample of program participants to assess program experience and awareness, customer satisfaction, and areas for potential program improvement. A survey guide can be found in Appendix B.

Opower selected 133,073 customers to receive home energy reports.<sup>3</sup> Opower analyzed customer billing data as well as third party demographic and geographic parcel data to determine which regions within Central Hudson's service territory to target. Customers were selected using two sets of eligibility criteria:

- *Site eligibility*: Ensured a site can be used in the neighbor comparison and that customers at the site could potentially be recipients.
- *Customer eligibility*: Ensured the customer had sufficient energy usage history with the utility.

The selected customers were randomly assigned to a control group or a recipient group (i.e. receive Home Energy Comparison Reports).<sup>4</sup> Opower ensures a statistical balance between the control and recipient groups.

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<sup>3</sup> Opower selected more than the 110,000 customers to ensure that the target was maintained with opt-out customers.

<sup>4</sup> The control group and recipient group targeted 110,000 customers each.

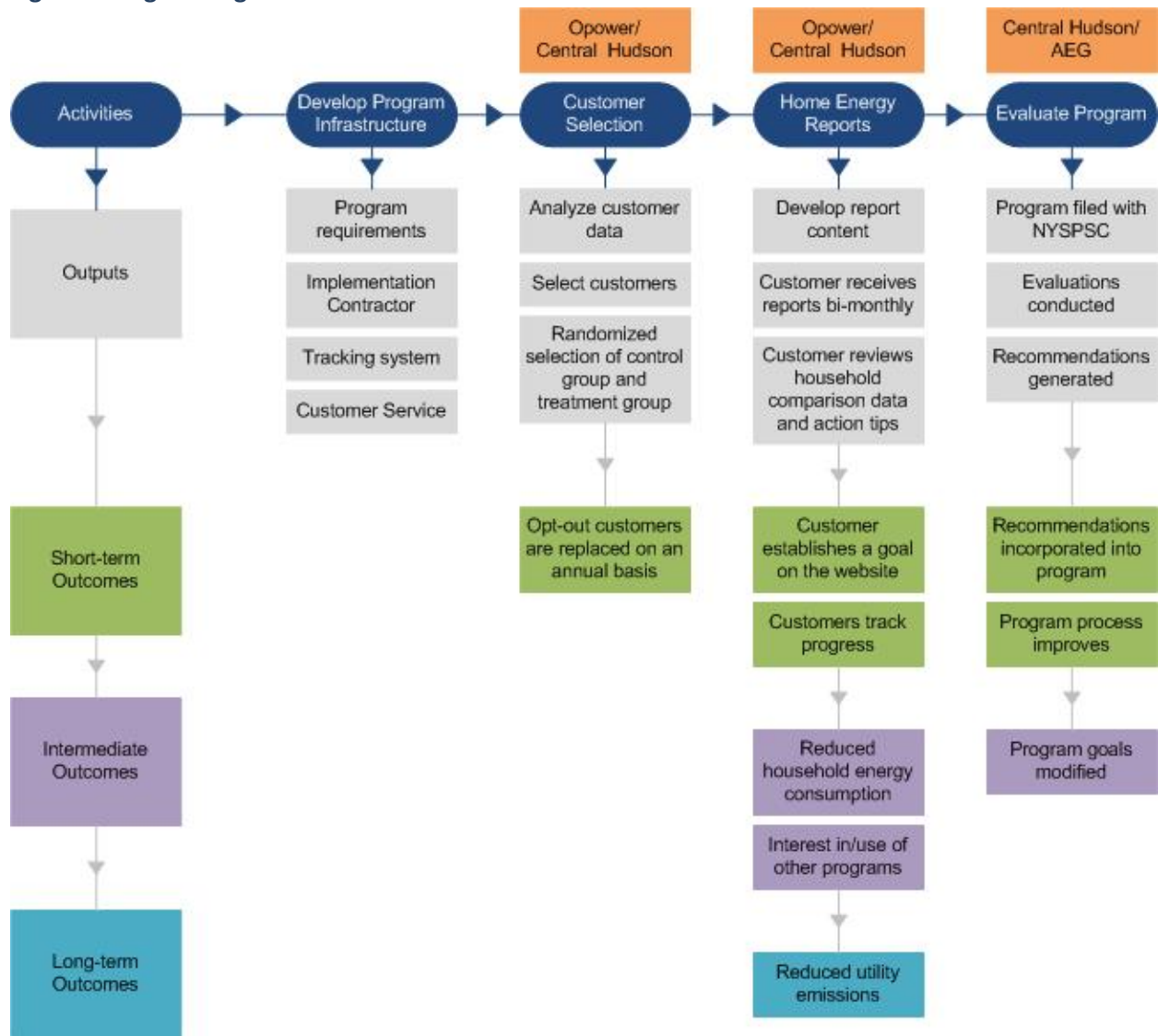
Of those, 1,006 customers chose to opt-out of the Home Energy Comparison Report Program before June 30, 2013. AEG calculated the sample size at a 90 percent confidence interval with an error margin of +/-10 percent. The sample size was calculated at 68. Participants were then randomly selected based 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-eight (68) surveys were completed in May 2014.

## **4. Program Flow**

The *New York State Process Evaluation Protocols* requires that a process evaluation assess program flow. Logic models are graphic representations of a program and its processes. Logic models make the program's assumptions explicit, showing the causal relationships or linkages among the problem or situation the program is designed to address, the intervention (inputs and outputs), and program impact (short, medium and long-term outcomes). Logic models also serve to identify processes and relationships critical to the program's performance.



Figure 1 Program Logic Model



### 4.1 Program Activities

The program activities and their corresponding outputs help to establish linkages between the situation the program is designed to address and the program’s intended outcomes. Program activities include:

#### Develop Program Infrastructure

Activities include gathering market knowledge, setting program goals, designing the program and establishing an operating structure. Central Hudson established the program rules and goals and utilizes a third-party implementation contractor, Opower, to deliver the program. Central Hudson’s Customer Service Representatives (“CSRs”) are trained to provide direct customers support. Opower has a 24/7 support line for CSRs to address critical issues.

## Customer Selection

Opower analyzed customer billing data as well as third party demographic and geographic parcel data to determine which regions within Central Hudson's service territory to target. The data was segmented based upon:

- Energy consumption patterns (e.g. normalized seasonal peak, etc.)
- Housing data (e.g. home age, home size, home value, etc.)
- Historic participation in energy efficiency programs
- Demographic data (e.g. renter vs. homeowner, etc.)

Opower selected customers using two sets of eligibility criteria:

- *Site eligibility*: Ensured a site can be used in the neighbor comparison and that customers at the site could potentially be recipients.
- *Customer eligibility*: Ensured the customer had sufficient energy usage history with the utility.

The selected customers were randomly assigned to the control group or recipient group (i.e. receive Home Energy Comparison Reports) while ensuring statistical significance.<sup>5</sup> The control group is utilized for customer comparisons and to determine program energy savings. Customer can opt-out of receiving the reports by calling Customer Service or via the Home Energy Reporting website. Customers that opt-out or move from the residence are replaced on an annual basis with a new recipient and corresponding control group per the methodology described above.

## Home Energy Reports

Opower developed the Home Energy Reports and Home Energy Reporting website in conjunction with Central Hudson. The reports and website integrate information about existing Central Hudson program offerings and historical marketing campaigns. The reports, issued to customers on a bi-monthly basis, are branded with the Central Hudson logo and utilize a combination of graphics and text to educate customers. The content includes the following:

- Neighbor comparison
- Neighbor rank
- Personal comparison to prior year usage
- Action steps and tips to reduce energy consumption

The Home Energy Reporting website provides customers with access to their energy information online. Customers establish a password protected account at <https://chge.opower.com>. The website allows customers to securely and easily access:

- Actual usage information
- Personal comparison
- Neighbor comparison and rank
- Goals
- Action Tips by type of equipment, cost and season

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<sup>5</sup> The control group and recipient group targeted 110,000 customers each.

The website content is dynamic and based upon the customer profile. New code is pushed live every three weeks.

### Program Tracking

Opower reports on the recipient group's change in electric and natural gas consumption, as compared to the control group and their historical consumption. Opower receives customer meter reads from Central Hudson on a regular basis to determine the change in energy consumption.

### Evaluate Program

Evaluation activities include process, market and impact studies. Once evaluations are conducted, recommendations for program improvements are generated for Central Hudson and fed back into program design. Central Hudson is responsible for program filings with the New York DPS.

## 4.2 Outcomes

Outcomes are the result of program partners and target audiences responding to the outputs of the program. There are short-term, intermediate, and long-term outcomes of the program.

### Short-term Outcomes

When the Home Energy Comparison Reports are issued, customers may become aware and interested in their household energy consumption and conservation actions. The program may lead customers to set goals to decrease and track their energy usage via the Home Energy Reporting website.

### Intermediate Outcomes

Intermediate outcomes may include increased use of Central Hudson energy efficiency programs as customers become aware of potential energy savings actions. The reports may encourage recipients to engage in additional energy savings actions outside Central Hudson's program offerings.

### Long-term Outcomes

The long-term outcomes may include energy savings for Central Hudson, reduced utility emissions, and an improved public image of Central Hudson.

## 4.3 External Factors

There are a variety of factors outside the control of Central Hudson and Opower that may influence the program. Documenting these factors help improve program planning by identifying important program partners, the part(s) of the issue the program can realistically influence, which evaluation measures will accurately reflect project outcomes, and other needs that must be met to address this issue.

- Changes in political priorities (e.g. codes and standards, state and local regulations, federal policies, perceptions of energy and climate change)
- Weather and associated impacts on customer actions and energy bills
- Economy and associated impacts on customer actions
- Energy prices and regulation
- Changes in utility rate structures
- Perceptions in the value of conservation
- Competing interests among demand side customers

## 5. Process Evaluation Findings

This section provides key process evaluation findings, including program performance, customer satisfaction and program tracking.

### 5.1 Program Performance

The Home Energy Comparison Report Program was launched in June 2011 and is implemented by Opower. Central Hudson spent the entire electric and natural gas budget in 2012 while achieving 145 percent of the MWh savings and 83 percent of the Dtherm savings. Between January 1, 2013 and June 30, 2013, Central Hudson spent approximately 45 percent of the electric and natural gas budgets while achieving 70 percent of the MWh savings and 44 percent of the Dtherm savings.

**Table 4 Electric Budget versus Expenditures**

	2012			2013 (Jan - June)		
	Budget	Expense	% Spent	Budget	Expense	% Spent
Administration	\$60,000	\$51,831	86%	\$60,000	\$21,415	36%
Implementation	\$794,235	\$844,104	106%	\$794,235	\$361,115	45%
Evaluation	\$44,959	\$17,358	39%	\$44,959	\$19,645	44%
<b>Total</b>	<b>\$899,194</b>	<b>\$913,293</b>	<b>102%</b>	<b>\$899,194</b>	<b>\$402,175</b>	<b>45%</b>

**Table 5 Natural Gas Budget versus Expenditures**

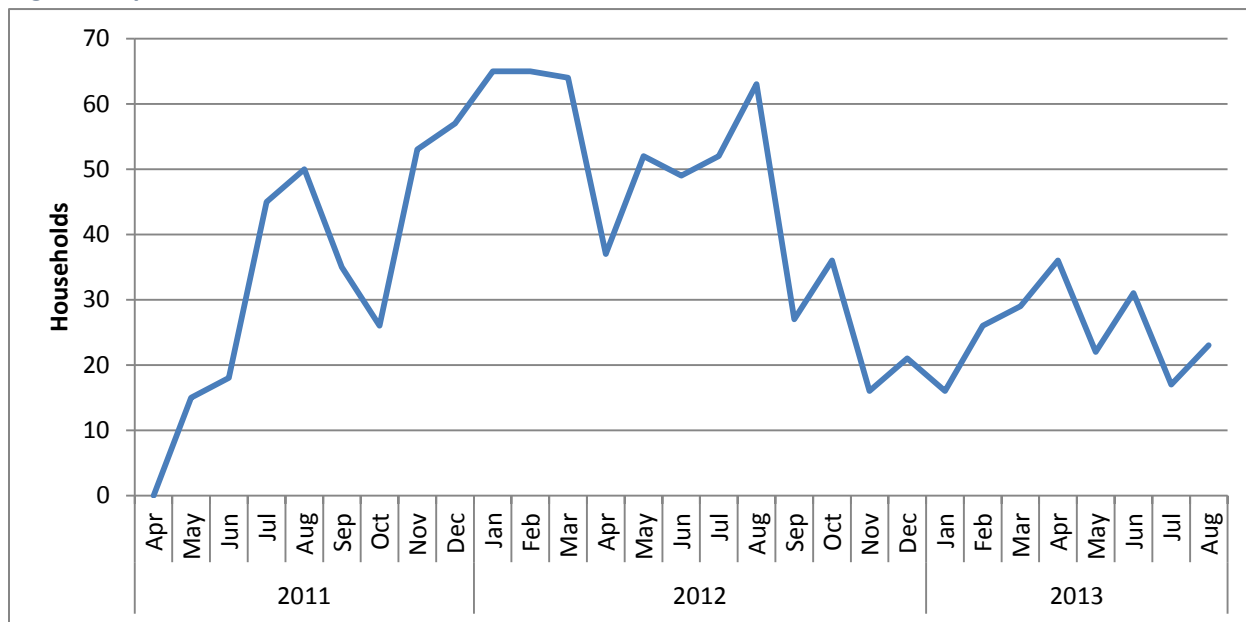
	2012			2013 (Jan - June)		
	Budget	Expense	% Spent	Budget	Expense	% Spent
Administration	\$14,000	\$7,484	53%	\$14,000	\$4,254	30%
Implementation	\$270,746	\$291,358	108%	\$270,746	\$120,372	44%
Evaluation	\$14,986	\$9,745	65%	\$14,986	\$7,501	50%
<b>Total</b>	<b>\$299,732</b>	<b>\$308,587</b>	<b>103%</b>	<b>\$299,732</b>	<b>\$132,127</b>	<b>44%</b>

**Table 6 Energy Savings Goal versus Actual**

	2012			2013 (Jan - Jun)		
	Goal	Actual	% Achieved	Goal	Actual	% Achieved
MWh Savings	12,000	17,342	145%	12,000	8,371	70%
Dtherm Savings	20,000	16,577	83%	20,000	8,886	44%

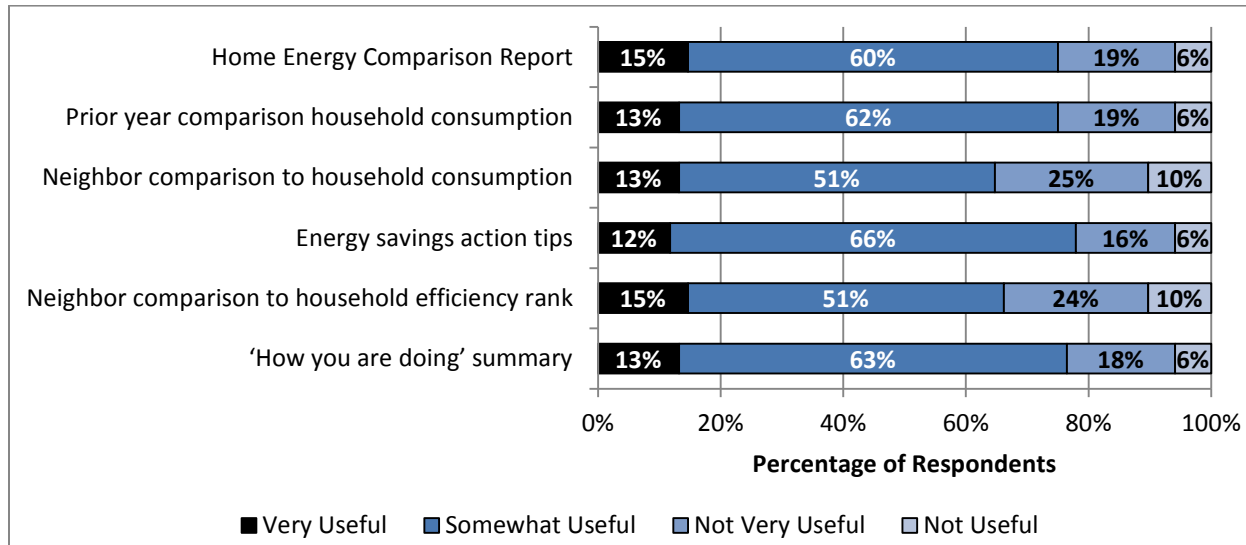
As of December 31, 2013, there were 102,052 households in the recipient group and 38,796 households in the control group. According to Opower, the household opt-out rate has remained low at approximately 1 percent. A total of 1,046 households opted-out of receiving the Home Energy Reports through August 2013. As shown in the figure below, the number of households that opted-out of the program has decreased since Fall 2012.

**Figure 2 Opt-Out Households**



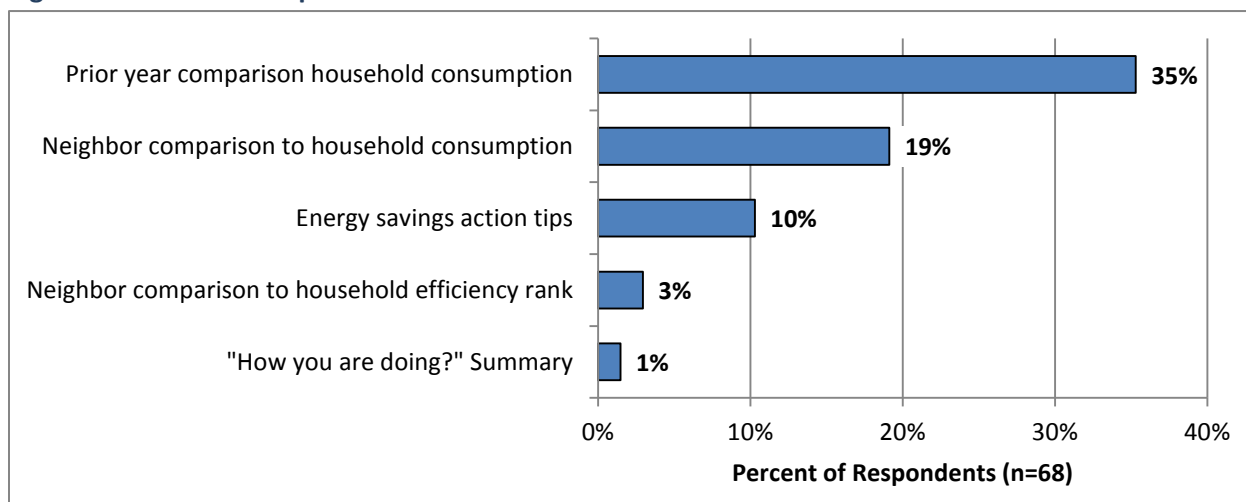
According to the participant survey, 84 percent of customers read all of the Home Energy Comparison Reports while 16 percent read some of the reports. Overall, customers found the reports useful and reported that the level of detail was sufficient. As shown in the figure below, the majority of survey respondents (50 to 60 percent) noted that the report content was somewhat useful.

**Figure 3 Report Usefulness**



The figure below shows that survey respondents found the comparison of household consumption to the prior year most useful (35 percent), followed by the neighbor comparison (19 percent) and the energy saving action tips (10 percent).

**Figure 4 Most Useful Report Content**



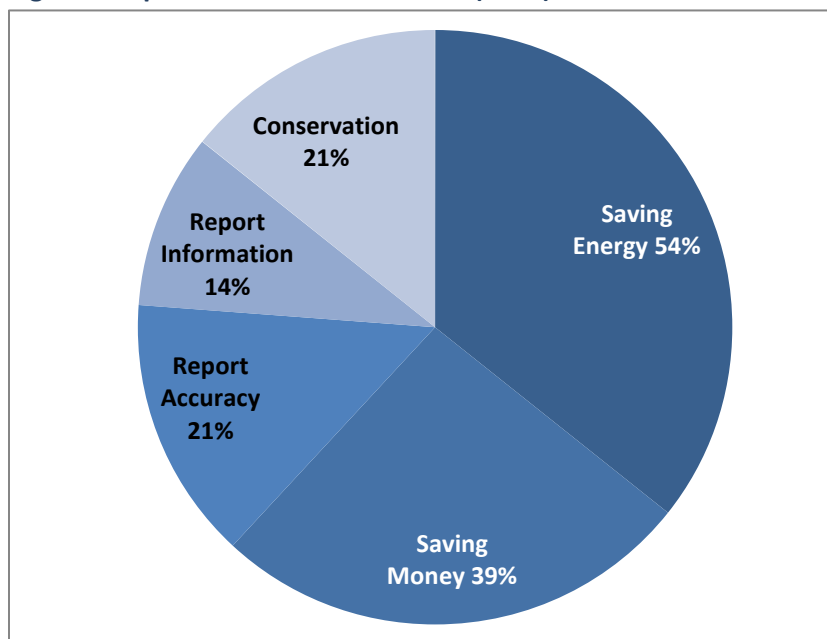
Opower modifies the report content depending upon the season and the energy efficiency programs Central Hudson is interested in promoting. Central Hudson noted that the action tips are reused and

*It is difficult to change report content*

Central Hudson would like to see customized reports targeted to specific households and updated tips. Staff suggested customizing reports by energy usage or customizing the action tips based upon the household energy usage, socioeconomic indicators, etc.

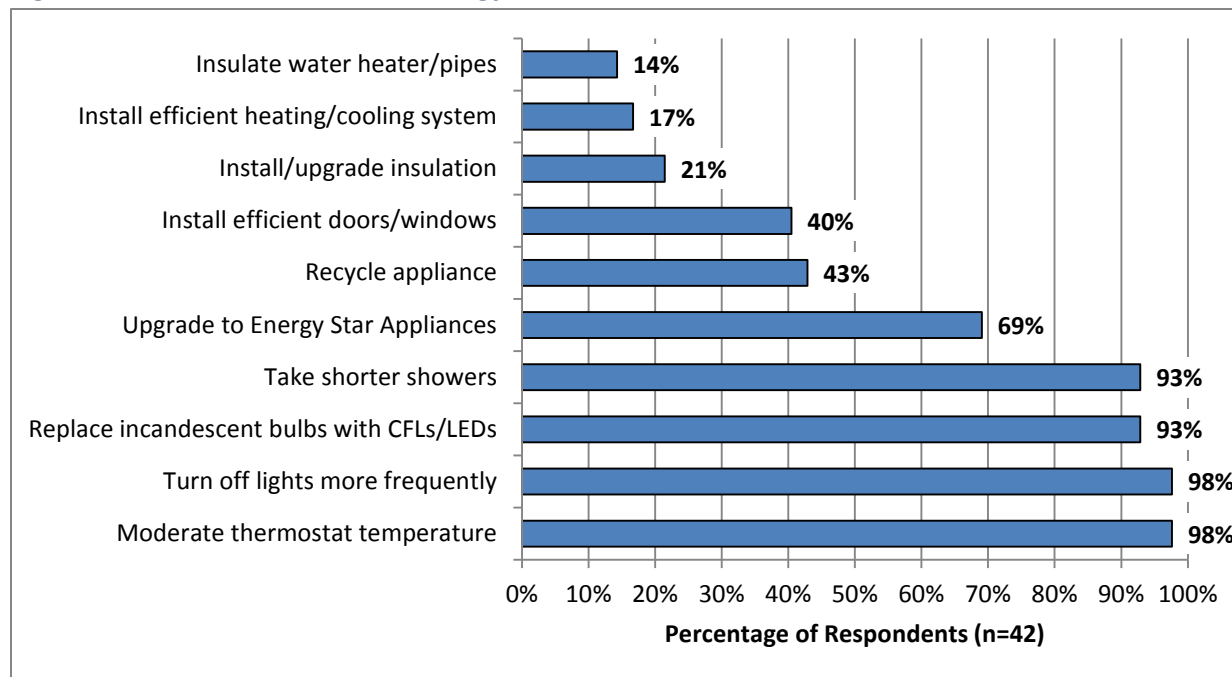
Forty-one (41) percent of survey respondents had discussed the report with someone else, primarily household members (50 percent), followed by neighbors (39 percent) and friends (18 percent). The majority of survey respondents discussed energy and dollar savings. However, 21 percent of respondents discussed the accuracy of the report information.

**Figure 5 Topics Discussed with Others (n=28)**



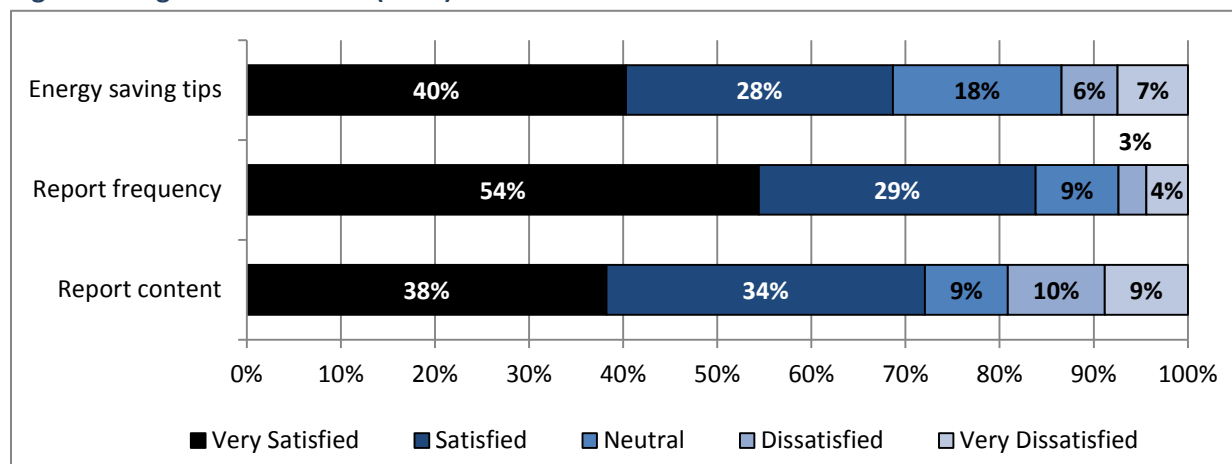
Three (3) percent of survey respondents participated in Central Hudson’s Residential Natural Gas HVAC Program. The remaining 97 percent of respondents did not participate in other Central Hudson energy efficiency programs. More than half of survey respondents have taken steps to reduce their household energy use in the last two years (62 percent), primarily by adjusting the thermostat temperature, turning off lights more frequently, and taking shorter showers.

**Figure 6 Actions Taken to Reduce Energy Use**



According to the survey results, participants are satisfied with the program. However, participants are least satisfied with the report content (9 percent are very dissatisfied) and approximately 25 percent of participants are neutral about the energy savings tips.

**Figure 7 Program Satisfaction (n=68)**



## 5.2 Tracking System

Central Hudson and Opower hold weekly conference calls to discuss the status of the Home Energy Comparison Report Program. In-person meetings are held quarterly or semi-annually, depending upon need. Opower submits monthly reports to Central Hudson staff detailing the electric and natural gas savings accrued.

Opower utilizes proprietary systems to track participants, calculate energy savings and generate reports. The systems have achieved the highest level of data security using Service Organization Control 2 ("SOC 2"). Only Opower employees can access the tracking systems and the data within. Data requests from Central Hudson are usually generated within 3 to 4 weeks.

Opower established a secure, firewalled file transfer protocol ("FTP") site for Central Hudson to transfer customer billing data and participant data. Central Hudson transfers customer meter reads on a regular basis. The meter data is utilized to determine household change in electric and natural gas consumption. Opower provides monthly reports on the recipient group's change in energy consumption, as compared to the control group and their historical consumption.

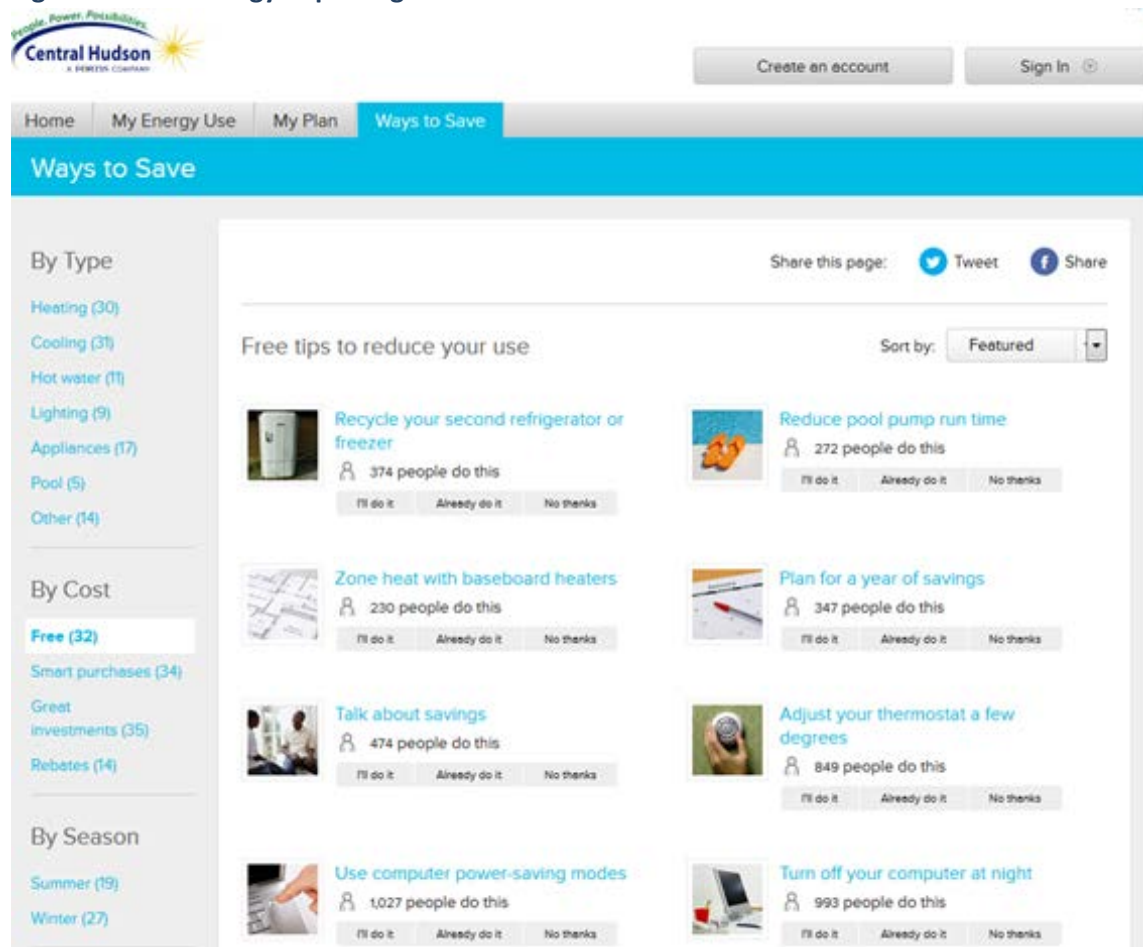
Opower hosts and maintains the Home Energy Reporting website, which provides customers with access to their energy information online. Customers can establish a password protected account at <https://chge.opower.com>. The website allows customers to securely and easily access the following:

- Actual usage information
- Personal comparison
- Neighbor comparison and rank
- Goals
- Action Tips by type of equipment, cost and season

The website content is dynamic and based upon the customer profile. However, customers can access the action tips without establishing an online account. The figure below presents a screenshot of the Home Energy Reporting Website



Figure 8 Home Energy Reporting Website Screenshot



## 6. Conclusions and Recommendations

As of December 31, 2013, there were 102,052 households that received Home Energy Comparison Reports and 38,796 households in the control group. According to Opower, the household opt-out rate has remained low at approximately 1 percent. The number of households that opted-out of the program has decreased since the fall of 2012.

Opower selected 133,073 customers to receive home energy reports. Opower analyzed customer billing data as well as third party demographic and geographic parcel data to determine which regions within Central Hudson's service territory to target. Customers were selected using two sets of eligibility criteria:

- *Site eligibility*: Ensured a site can be used in the neighbor comparison and that customers at the site could potentially be recipients.
- *Customer eligibility*: Ensured the customer had sufficient energy usage history with the utility.

The selected customers were randomly assigned to a control group or a recipient group (i.e. receive Home Energy Comparison Reports).

In 2012, Central Hudson exceeded the electric savings goal and achieved 83 percent of the natural gas savings goal. As of June 30, 2013, Central Hudson achieved 70 percent of the electric savings goal and 44 percent of the natural gas savings goal. Therefore, Central Hudson is on track to exceed the electric savings goal in 2013 and may achieve 100 percent of the natural gas goal.

According to the survey results, participants are satisfied with the program and 84 percent of customers read all of the Home Energy Comparison Reports. Survey respondents found the comparison of household consumption to the prior year was most useful (35 percent), followed by the neighbor comparison (19 percent) and the energy saving action tips (10 percent). More than half of survey respondents have taken steps to reduce their household energy use in the last two years, primarily by adjusting the thermostat temperature, turning off lights more frequently, and taking shorter showers. However, most survey respondents have not participated in another Central Hudson program.

AEG has recommendations on how to improve the program. These include:

#### **Customize Home Energy Comparison Reports**

The Residential Energy Comparison Report Program was launched in June 2011 and has been sending bi-monthly reports to the same participants since that time. The implementation contractor, Opower, develops the home energy comparison reports, selects program participants and tracks participation. Central Hudson has found it difficult to change report content and update the energy saving action tips. The majority of survey respondents noted that the energy saving action tips were somewhat useful, with 12 percent finding them very useful and 6 percent finding them not useful.

AEG recommends that Opower work with Central Hudson to update energy saving action tips to keep participants engaged and to determine if reports can be customized to targeted specific households. For example, customizing action tips based upon household energy usage or socioeconomic indicators.

#### **Improve Data Request Response**

Central Hudson staff cannot access the Opower tracking system or view program data and data requests typically take 3 to 4 weeks. AEG recommends that Opower work to provide Central Hudson staff with at least read only access to the tracking system and reduce the amount of time it takes to generate a data request response.

#### **Integrate Other Central Hudson Programs**

The Home Energy Report Program provides an opportunity to promote other energy efficiency programs offered by Central Hudson. The Home Energy Reports and Home Energy Reporting website should be customized to take full advantage of any potential cross-program synergy.

# Appendix A. Implementation Contractor Interview Guide

## Program Operations

1. Describe the roles and responsibilities of the Opower staff assigned to the program.
2. How often does Opower communicate with Central Hudson regarding program status and activities? What type of information is provided to Central Hudson?
3. What changes have been made to the program since 2010?
4. How is the program marketed to customers?

## Customer Service

1. Is there a customer service line for customers who have questions/concerns about the program?
2. Who operates the customer service line?
3. What are the business hours?
4. How is the customer service information tracked?

## Participation

1. How are customers selected to participate in the program?
  - a. What are the eligibility criteria? How were the criteria developed?
  - b. What are the criteria for the control group?
  - c. How was customer eligibility determined? What customer information was provided by Central Hudson?
2. Describe the process of how customers may opt-out/opt-in to the program. Are opt-out customers replaced with new customers?
3. Home Energy Reports:
  - a. How often are reports issued to customers?
  - b. How is the format/content developed?
  - c. What type of information is provided on the report?
  - d. How often is the content revised?
4. Describe the Home Energy Reporting Website.
  - a. What information does the customer have access to?
  - b. How often is the information updated?
5. Describe the tracking system and data security.

## Program Satisfaction

1. What is the overall feedback from customers?
2. What barriers exist for customers to participate in the program?
3. Are there any areas where the program can be improved?
4. How is Central Hudson's program different from other utilities?

## Comments

## Appendix B. Program Participant Survey Guide

Hello, my name is \_\_\_\_\_ and I’m calling on behalf of Central Hudson Gas & Electric. According to our records, your household participated in Home Energy Comparison Report Program.

Do you recall participating in the program?

- Yes
- No (“The reports estimate your energy consumption compared to your neighbors and provides action steps to reduce energy usage.” If they still do not remember, ask if there is someone else in the home you can speak to. If no, **Terminate Interview.**)

May I ask you a few questions about the program?

- Yes
- No (See if they agree to another date/time: If “No,” thank them for their time and exit.)

### Program Participation

1. About how many of the Home Energy Comparison Reports have you read?

- None
- Some
- All (skip to Q3)

2. How often do you ....

	All of the time	Sometimes	Seldom	Never
Read the reports cover to cover				
Read some of the article content				
Skim the article content				
Glance at the graphics/headlines				

3. How useful is the....

	Very Useful	Somewhat Useful	Not Very Useful	Not Useful
Home Energy Comparison Report				
Comparison of your household consumption to your neighbors				
Comparison of your household efficiency rank to your neighbors				
Comparison of your household consumption to the prior year				
‘How you are doing’ summary (smiley faces)				
Energy saving action tips				

4. What information do you find most useful?

- Comparison of your household consumption to your neighbors
- Comparison of your household efficiency rank to your neighbors
- Comparison of household consumption to the prior year
- How you are doing (Smiley faces and label ‘Great, Good, More than average’)
- Energy saving action tips
- None

5. Do you feel that the level of detail in the report is sufficient?

- The level of detail is sufficient (skip to Q7)
- More detail needed
- Less detail needed

6. What detail would you like to see {added/removed} from the reports?

	Add Detail	Remove Detail
Comparison of your household consumption to your neighbors		
Comparison of your household efficiency rank to your neighbors		
Comparison of your household consumption to the prior year		
‘How you are doing’ summary (smiley faces)		
Energy saving action tips		

7. Please rate your satisfaction with the following program components on a five-point scale, where “5” means “Very Satisfied” and “1” means “Very Dissatisfied.” How satisfied are you with

	Very Satisfied	4	3	2	Very Dissatisfied
The report content					
The report frequency					
The energy saving tips					

**Actions Taken**

8. Have you discussed the reports with others?

- Yes
- No (skip to Q11)

9. With whom did you discuss the report?

- Members of your household
- Neighbors
- Friends
- Coworkers

10. What types of things did you discuss?

- Saving money
- Saving energy
- Turning things off (lights, computers, other)
- Environment/climate change
- Closing doors/windows/shades
- Saving water/hot water usage
- Thermostat settings/turning down the heat
- Insulation improvements

11. Have you participated in other Central Hudson energy efficiency programs?

- Yes
- No (skip to Q13)

12. Which programs have you participated in?

- Residential Appliance Recycling
- Residential Electric HVAC
- Residential Natural Gas HVAC

13. Has your household take any steps to reduce energy use in the past two years?

- Yes
- No (skip to Q16)

14. Have you taken any of the following actions?  
 (If “YES”) How much influence did the program have in this decision?

Action	Yes	No	Not Influential	Somewhat Influential	Very Influential
Replace incandescent light bulbs with CFLs/LEDs					
Recycle an appliance					
Turn off the lights more frequently					
Take shorter showers					
Turn thermostat down in winter/up in summer					
Upgrade to Energy Star Appliances					
Install new efficient doors/windows					
Install a new efficient heating or cooling system					
Install / upgrade insulation (walls, ceiling, attic)					
Insulate water heater/install pipe insulation					

15. How likely is it that you would have taken the energy saving actions had you not received the reports?

Action	Very likely	Somewhat likely	Neutral	Somewhat unlikely	Very unlikely
Replace incandescent light bulbs with CFLs/LEDs					
Recycle an appliance					
Turn off the lights more frequently					
Take shorter showers					
Turn thermostat down in winter/up in summer					
Upgrade to Energy Star Appliances					
Install new efficient doors/windows					
Install a new efficient heating or cooling system					
Install / upgrade insulation (walls, ceiling, attic)					

**Customer Demographics**

16. Do you own or rent your home?

- Own
- Rent

17. Which of the following best describes your residence?

- Single family house
- Multi-family house
- Apartment
- Townhouse

***Thank you for taking the time to answer my questions!***