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# **Xcel Energy Customer Behavior Change Program Process Evaluation**

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Prepared for  
Xcel Energy

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# Table of Contents

<b>1.</b>	<b>Executive Summary .....</b>	<b>1</b>
<b>2.</b>	<b>Introduction .....</b>	<b>7</b>
	Research Objectives.....	7
	Program Background .....	7
	Program History and Design .....	7
	Logic Model.....	8
	Program Elements.....	8
	Residential and Business Process Flow Diagrams .....	8
	Outreach and Advertising to Residential customers.....	12
	Outreach and Advertising to Business Customers.....	13
	Community Partnerships .....	13
	Data Tracking .....	13
	Market Barriers.....	14
	Program Achievements.....	15
	Report Overview .....	15
<b>3.</b>	<b>Data Collection Activities .....</b>	<b>16</b>
	Overview of Data Collection Activities.....	16
	Internal Program Staff Interviews .....	16
	Participant Surveys .....	17
<b>4.</b>	<b>Internal Program Staff Interviews .....</b>	<b>19</b>
	Internal Program Staff Interview Findings .....	19
<b>5.</b>	<b>Residential Participant Surveys.....</b>	<b>21</b>
	Summary .....	21
	Detail Findings.....	23
	Awareness Summary .....	23
	Customer Attitudes .....	55
	Barriers .....	57
	House Parties .....	58
	Overall Satisfaction with Xcel Energy .....	59
	Participant Profile .....	60
<b>6.</b>	<b>Business Participant Surveys.....</b>	<b>62</b>
	Detail Findings.....	63
	Awareness Summary .....	63

Action .....	69
Value.....	78
Attitudes.....	80
Barriers .....	82
Firmographics .....	83
Overall Satisfaction with Xcel Energy .....	84
Business Profile .....	84
<b>7. Benchmarking Analysis.....</b>	<b>86</b>
Program Type.....	87
Customers Type .....	88
Incentives .....	88
Marketing.....	89
Program Success .....	89
Participation .....	89
Attributed Savings .....	90
Summary of Best Practices .....	91
Best Practice 1: Participation.....	92
Best Practice 2: Program Brand.....	93
Best Practice 3: Commitment .....	93
Best Practice 4: Incremental Program Development.....	93
Best Practice 5: Integrated Ad Campaign.....	93
Best Practice 6: Participant Interaction and Follow-up .....	93
Best Practice 8: Target Outreach through Segmentation.....	94
Best Practice 9: Savings Estimates for Energy-Saving Behaviors .....	94
Best Practice 10: Ways for Customers to Understand Their Energy Usage.....	95
Potential Next Steps.....	96
<b>Appendix A: Data Collection Instruments .....</b>	<b>98</b>
<b>Appendix B: Detailed Survey Results .....</b>	<b>99</b>
<b>Appendix C: Behavior Change Research References.....</b>	<b>100</b>

## List of Tables

Table 1. Summary of Proposed Baseline Measures.....	2
Table 2. Satisfaction & Persistence Findings .....	3
Table 3. Program Theory and Linkage Table .....	11
Table 4. Residential Marketing Metrics.....	14
Table 5. Business Marketing Metrics .....	14
Table 6. Customer Behavior Change Program Comparison by Sector .....	15
Table 7. Program Interviews by Program Area and Staff Role .....	17
Table 8. Survey Completes .....	18
Table 9. PRIZM Segment Actions Taken.....	22
Table 10. Frequency of Performing Actions to Save Energy .....	37
Table 11. Household Characteristics .....	61
Table 12. Frequency of Performing Actions to Save Energy .....	71
Table 13. Company Characteristics .....	85
Table 14. Included Programs .....	87
Table 15. Direct Program Participation .....	90
Table 16. Savings.....	91
Table 17. Best Practices.....	92

## List of Figures

Figure 1. Customer Behavior Change Logic Model.....	8
Figure 2. Customer Behavior Change Residential Process Flow .....	9
Figure 3. Customer Behavior Change Business Process Flow .....	10
Figure 4. Residential Customer Awareness Levels, n=422 .....	23
Figure 5. Energy Saving Tips Seen or Heard .....	24
Figure 6. Tips Categorized as Behavioral versus Long-term Effect.....	25
Figure 7. Source of Awareness, n=296.....	26
Figure 8. Awareness of Energy Saving Programs, n=186.....	27
Figure 9. Awareness of ResponsibleByNature.com .....	28
Figure 10. Sources of Awareness of ResponsibleByNature.com, n=53 .....	29
Figure 11. Awareness of Xcel Energy at Community Events, n=422 .....	30
Figure 12. Events Attended in the Past 12 Months, n=221 .....	31
Figure 13. Satisfaction by Presence at Community Events .....	32
Figure 14. Taken Action, n=422.....	33
Figure 15. Actions Taken to Save Energy: Unaided.....	33
Figure 16. Actions Classified as Behavior or Long Term: Unaided.....	34

Figure 17. Past and Future Energy Saving Behavior .....	35
Figure 18. Actions Taken by Residential customers: Unaided and Aided Responses, n=422 .....	36
Figure 19. Residential Customer Actions Taken (Aided) by PRIZM Segment .....	38
Figure 20. Actions Taken by Other Members of Household, n=337 .....	39
Figure 21. Actions Taken to Make Home More Energy Efficient, n=422 .....	40
Figure 22. Likely to Take Action by Awareness of ResponsibleByNature.com.....	40
Figure 23. Likelihood to Take Action by Year Home was Built.....	41
Figure 24. Why Residential customers Are Not Likely to Take Action, n=53 .....	42
Figure 25. Tips Influence on Decision to Take Action, n=277 .....	43
Figure 26. Other Influences to Taking Action in Addition to Xcel Energy Information, n=254 ..	44
Figure 27. Participation in Energy-Saving Program or Rebate From Xcel Energy.....	45
Figure 28. Residential Participation in Energy Saving Program or Rebate, n=89 .....	46
Figure 29. Reasons for Non-Participation in Energy-Saving Program or Rebate, n=344.....	47
Figure 30. Likelihood to Participate in Energy-Saving Program in Next 1 – 2 Years .....	48
Figure 31. Why Not Likely to Participate in Energy-Saving Program in Next 1 – 2 Years, n=79 .....	49
Figure 32. Noticed a Change in Comfort of Home Since Taking Energy-Saving Actions .....	50
Figure 33. Changes Noticed Since Taking Energy-Saving Actions .....	50
Figure 34. Information From Xcel Energy Did Not Increase Knowledge .....	52
Figure 35. Energy Saving Information Most Likely to Act On and Would Find Helpful but Do Not Have .....	53
Figure 36. Good Ways to Communicate Energy-Saving Information to Residential Customers, n=183 .....	54
Figure 37. Residential Customer Attitudes: Importance.....	55
Figure 38. Residential Customer Attitudes: Agreement.....	56
Figure 39. Incorporating Energy Saving Actions is Challenging .....	57
Figure 40. Challenges to Energy Saving, n=155 .....	57
Figure 41. Residential Customer Interest in Attending or Hosting House Parties .....	58
Figure 42. Interest in Attending House Parties by Number of Members in Household.....	58
Figure 43. Residential Customer Satisfaction Levels .....	59
Figure 44. Business Customer Summary of Awareness, n=245.....	63
Figure 45. Energy Saving Tips Seen or Heard .....	64
Figure 46. Tips Categorized as Behavioral versus Long-Term Effect, n=181 responses.....	64
Figure 47. Source of Awareness, n=158.....	65
Figure 48. Awareness of Energy Saving Programs, n=150.....	66
Figure 49. Responsible By Nature Website.....	68
Figure 50. Proportion of Customers Who Took Action: Unaided.....	69
Figure 51. Actions Taken To Save Energy: Unaided .....	70
Figure 52. Actions Classified as Behavior or Long-Term: Unaided .....	70

Figure 53. Actions Taken to Save Energy: Unaided and Aided Responses, n=245 .....	71
Figure 54. Other Influences to Taking Action in Addition to Xcel Energy Information, n=143 .	72
Figure 55. Co-Workers or Staff Also Taken Action, n=148 .....	72
Figure 56. When Last Major Retrofit Remodel of Building was Conducted, n=228.....	73
Figure 57. Changes to Save Energy Related to Equipment, n=245.....	74
Figure 58. Rebate Programs From Xcel Energy .....	75
Figure 59. Why Companies Have Not Participated in Rebate Programs .....	76
Figure 60. Changes in Monthly Bill .....	77
Figure 61. Energy Saving Information Likely to Act On .....	78
Figure 62. Energy-Saving Information That Would be Helpful.....	78
Figure 63. Best Way for Xcel Energy to Communicate .....	79
Figure 64. Attitude About Energy .....	80
Figure 65. Most Important Reason to Participate in Energy-Saving Actions.....	81
Figure 66. Challenges to Energy Savings .....	82
Figure 67. Activities of Internal Group Dedicated to Energy Efficiency .....	83
Figure 68. Business Customer Satisfaction Levels.....	84
Figure 69. Innovative Outreach Examples.....	94
Figure 70. Rocky Mountain Power Example of Illustrated Home Energy Use.....	95

# 1. Executive Summary

This report summarizes the process evaluation of Xcel Energy's Colorado Customer Behavior Change program (CBC, or the program), conducted by The Cadmus Group Inc. (Cadmus), along with Integrative Growth, Inc. (IG) and Population Research Systems (PRS). The evaluation findings and conclusions were informed by an array of data collection activities, including surveys of current and former program staff, advertising and communication staff, contractors, and residential and business program participants. In addition, a benchmarking analysis of other utility behavior change programs was conducted.

The program was launched in 2009 as an indirect program to increase customer awareness about energy efficiency and conservation, and develop engaged customers who proactively reduce energy consumption. Participation goals were set by residential and business customer segment. The program was expected to reach 60,000 residential customers, and 1,978 business customers. These goals were exceeded, with 97,453 residential and 2,325 business customers participating.

The summary below describes how the research objectives are being met.

## **Objective #1: Develop flow diagrams, theory, and logic model documenting information and activity flows between implementers and market actors.**

Interviews were conducted with nine Xcel Energy program staff, contractors, and advertising and communications personnel. Based on these interviews, process flow diagrams and logic models were created that accurately document how the program is delivered to customers (process flow, pages 9 and 10), and the program's inputs, outputs, and expected outcomes (logic model, page 8).

## **Objective #2: Compare current strategies and activities to theory and logic models.**

The program as currently executed is tracking with the plan submitted to the Colorado Public Utilities Commission. Program staff interviews confirmed that the logic model and process flow models accurately depict the activities encompassed in the program. Xcel Energy has implemented an advertising campaign, regularly publishes residential and business newsletters, maintains the Responsible By Nature Website, is present at events within the community, and is offering business workshops. The program has established partnerships within the community, including assisting libraries in offering the Power Check device, and teaming with a non-profit agency to do energy-efficient sweeps of low-income neighborhoods. A sizeable percentage of residents and business customers attribute their awareness of energy-saving programs and tips to Xcel Energy's outreach efforts and take action as a result of the information they receive. Actions include behavioral changes such as turning off lights and adjusting thermostats, as well as implementing actions with long-term effect, such as installing more energy-efficient lighting and equipment.

## **Objective #3: Establish baseline of behavior change for future program achievement and measurement.**

The program is based on increasing customer awareness of energy-efficient behaviors, educating about specific actions that can be taken, and encouraging customers to take action. This study surveyed an engaged population: the residential respondents had provided contact to



Xcel Energy as a result of participating in one of the CBC program's outreach activities, and the business respondents had either sponsored or participated in a workshop, or had signed up for the Energy Solutions newsletter. Baseline measures were selected with input from Xcel Energy staff to reflect areas the program could directly influence. This study provides baseline measures for this specific population of business and residential customers' awareness and behavior.

**Table 1. Summary of Proposed Baseline Measures**

	Residential	Business
Awareness		
Xcel Energy presence at events	38%	NA
Xcel Energy Behavior Change Advertising <sup>1</sup>	23% <sup>1</sup>	40% <sup>1*</sup>
Xcel Energy newsletter	12%	36%
Responsible by Nature Website	16%	27%
Behavior		
Taken some energy-saving action	81%	80%
Participate in Energy Saving Program	23%	33%
Program Information		
Attribute action taken to information provided by Xcel Energy	40%	28%
Importance of energy-saving information from Xcel Energy (6-10)	60%	49%

Among residential customers surveyed, 81% said they had taken some action in the past 12 months to save energy, while 80% of business customers had done so. Twenty-three percent of residential customers had participated in an Xcel Energy program or received a rebate, and 33% of business customers participated in a DSM program.

Much of the advertising and outreach has focused on space heating and cooling, and lighting. Both residential and business customers have high awareness of tips and programs related to these measures, and customers report taking action to save energy by upgrading HVAC systems and installing CFLs, as well as using programmable thermostats, replacing furnace filters, and turning off lights.

**Objective #4: Assess program satisfaction and incidence and persistence of behavior change among program participants.**

About three-quarters of residential and business customers express satisfaction with the energy saving information they receive from Xcel Energy. Nearly half of business customers say Xcel Energy is effective in raising their awareness of energy-saving activities.

Customers are engaged in a variety of energy-saving actions, most predominantly related to HVAC systems and lighting. Some of these actions have high incidence and are done habitually.

<sup>1</sup> Measured by Xcel Energy Advertising Tracking Study: Quarter 3 2010, Colorado awareness of CBC/Consumer education campaign

The full list of actions and persistence are shown on pages 36 and 37 (residential) and page 71 (business.)

Among customers who took some action in the past 12 months, 40% of residential customers and 28% of business customers directly attribute their action to information provided by Xcel Energy. Residential customers who saw Xcel Energy at an event were more likely to have participated in an energy-saving program or received a rebate, and say they will take additional actions in the next year. They are also more likely to say they know what to do to control energy bills and have installed CFLs. Business customers who received the newsletter were more likely to have purchased energy-efficient equipment and lighting, insulated, and to have had Energy Assessments and Recommissionings than those who do not receive the newsletter. They were also more likely to say they would take additional action in the next year.

**Table 2. Satisfaction & Persistence Findings**

	Residential	Business
Satisfaction		
Energy-saving information provided by Xcel Energy (6-10)	78%	71%
Behavior		
Taken some energy-saving action	81%	80%
Participate in Energy Saving Program	23%	33%
Likely to take additional energy-saving actions in the coming year	65%	60%
Persistence		
Always turn off lights	87%	82%
Always wash in cold water	55%	NA
Always unplug electronic equipment	40%	47%
Change furnace filter 4 or more times annually	51%	NA
Program Information		
Attribute action taken to information provided by Xcel Energy	40%	28%
Energy-saving information from Xcel Energy was important (6-10)	60%	49%

**Objective #5: Determine areas where improvements to program implementation can lead to more cost-effective energy savings.**

The results of this study indicate a number of ways in which the program could expand and improve as it continues to develop:

- 1. Continue building awareness of the benefits of energy efficiency and conservation as the marketing and advertising efforts are helping to create a more educated and engaged public.** Increased awareness of tips and programs broadens customers' knowledge, and this expanded knowledge results in more customers taking action. Therefore, we encourage Xcel

Energy to consider assessing the following elements of the advertising and marketing campaign, and make refinements where warranted to improve the effectiveness and reach.

- Consider creating a customer-facing program identity that will increase customer recognition and create a link between all of the behavior change outreach and marketing efforts.
- Take advantage of social media outlets to connect with customers, reinforce messaging, and facilitate follow up with those who attend events and workshops.
- Ensure language used in bill inserts is clear and compelling. Although this study did not find problems with bill insert language specific to behavior change messaging, bill inserts were the most commonly reported method for businesses and residential customers to learn about energy-saving tips and therefore a critical channel for this information. Conduct additional research as needed to use bill inserts to maximum effect.
- Although awareness of Xcel Energy's presence at community events was low, information provided by Xcel Energy at events and through other channels had a significant impact on residential customers taking action. Continue to enhance segmentation initiatives in order to achieve higher customer awareness and participation in community outreach activities. Consider expanding marketing to include more receptive PRIZM life-stage segments, such as Mainstream Families, that are most likely attend an event and recall seeing an Xcel Energy representative or booth.
- Maximize use of the Responsible By Nature Website. Awareness is fairly low for the Responsible By Nature Website. The Website has the potential to be an extremely cost-effective and information-rich resource for educating the public, as well as serving as a virtual hub that connects all the other program communication channels. Consider conducting a usability study to ensure the Website has maximum impact, and then create a compelling call to action to drive traffic to the site.
- Consider expanding the distribution of the newsletter to promote it with as many businesses as possible. The Energy Solutions newsletter has shown to have a direct impact on the businesses receiving it, as they are more likely to have heard tips and taken specific actions to save energy. E-mail was a preferred means of receiving energy-saving information cited by businesses; an E-mail distribution would be a cost-effective way to reach more businesses. There is directional evidence in the data suggesting that small to medium-sized businesses, renters, and retailers would like energy-saving information customized more to their unique circumstances. Feature the efforts and successes of a variety of businesses and publish them in the newsletter to showcase the possibilities.
- Expand business workshops by publicizing them to a greater number of businesses. Partner with community groups (local governments and stimulus funding grant recipients) to leverage customers in common. Though the sample sizes for workshop attendance are low, there is directional evidence that attendance correlates with taking action.

**2. Evidence suggests that customers have only a partial understanding of energy-efficiency measures and the programs offered by Xcel Energy. Low awareness is a barrier to action and can be addressed with additional education.**

- Provide compelling tools or resources (such as online calculators or customized scenarios) that describe the financial benefit to behavior change along with information about rebates and other financial assistance. This would address some of the barriers faced by businesses such as initial cost, obtaining management approval, understanding how behavior change and equipment upgrades apply to their own situation, and lack of program awareness.
- Provide case studies that illustrate the savings available from behavior change and serve as examples of how businesses can thrive as they become more energy efficient. Business customers' who perceive that change is disruptive to the business and the employees within the organization may resist the change, another leading challenge for businesses to making energy-saving changes.
- Increase awareness and participation in programs and behaviors that received low awareness/participation endorsement by focusing messaging on low-awareness programs and associated energy behavior. As lighting and HVAC energy-efficiency measures were well-known and acted upon by both business and residential customers, prioritize promotion of high impact measures and behaviors that have lower awareness.
- Develop messaging that will motivate customers to persist in energy-saving behaviors, also acknowledging actions in which they routinely engage. Residential customers who believe that they have done everything they can to be efficient and are not taking further action may not recognize the ways in which persistence of these behaviors contribute to energy savings.
- Continue developing cross-promotions between CBC and prescriptive programs, particularly the Home Energy Audit and Business Energy Assessment programs, as an access point for energy saving tips and program information. As participants advance further on the continuum from awareness to action, they may become more familiar with a broader range of programs in which they can participate.

**3. Focus on getting customers to take that first step. Customers who have taken a step to save energy are more likely to continue to seek out ways to be more energy efficient.**

This is consistent with a continuum approach, recognizing that incremental steps can result in a response with greater impact over time.

- Continue to expand program offerings, targeting outreach tactics to specific customer types. As mentioned previously, continue event outreach to those likely to be at events (Mainstream Families) and use different approaches to reach those less likely to attend (Accumulated Wealth). Small businesses and renters (both business and residential) expressed the need for tips and programs that fit their situation. There is currently no behavior change outreach directed at industrial customers, yet their usage of energy is considerable and moderate changes could yield a relatively large impact. Continue the use of the school education kits to increase energy awareness and action of a younger cohort. Develop innovative approaches such as the House Parties initiative, piloted in the

fall of 2010, for expanding program outreach to customers that may not be touched by traditional marketing approaches.

- Consider asking customers to make a commitment to take specific actions or to reach a reduction goal based on percent of monthly usage, as detailed in the Best Practices section of this report. This commitment request could occur at workshops, events, and on the Website. Customers may be more likely to make a commitment if they can also receive feedback on how their efforts to save energy are working. Coordinate with the Home Energy Report pilot and the online My Account tool as methods for providing feedback associated with a commitment to energy-saving actions.
- Adding a proscribed follow up element to the CBC program could move engaged customers to action. This group includes customers who have attended an event or workshop. Follow up could take the form of an email campaign or program literature specific to the unique needs of the business, or in answer to a residential customer's question at an event. These contacts would be an ideal opportunity to highlight Xcel Energy's presence at upcoming events.

## 2. Introduction

### Research Objectives

As outlined in the evaluation plan, this evaluation focused on the following major objectives:

1. Develop flow diagrams, theory, and a logic model documenting information and activity flows between implementers and market actors.
2. Compare current strategies and activities to theory and logic models.
3. Establish baseline of behavior change for future program achievement and measurement.
4. Assess program satisfaction and incidence and persistence of behavior change among program participants.
5. Determine areas where improvements to program implementation can lead to more cost-effective energy savings.

### Program Background

The Xcel Energy CBC program focuses on creating awareness of energy conservation while providing customers with information on what actions they can take to reduce energy use. The program encourages customers to make Xcel Energy their first contact when considering energy efficiency and conservation. The program focuses on educating customers and their employees on the impacts of their energy use and offers choices and information on how to take action to achieve short and long-term energy savings.

The CBC program:

- Introduces energy-efficiency and conservation behavior changes into the marketplace.
- Promotes existing energy-efficient technologies, services, and behaviors so that they become more widespread.
- Decreases the use of inefficient technologies, services, and behaviors.

### Program History and Design

The Xcel Energy CBC program was launched in Colorado in 2009. Assumptions are that the program is an indirect program with objectives to heighten residential and business customers' awareness about energy efficiency and conservation, and develop engaged customers who will proactively take steps to reduce energy consumption. The goal of the program is to encourage customers to conserve energy and upgrade to high efficiency measures. Xcel Energy employs communications and strategic outreach methods to make customers aware of these strategies. The program aims to educate customers on energy-efficiency and conservation opportunities resulting in energy-saving actions that ultimately become habitual.

The program has two primary components: 1) outreach to residential customers, primarily at large community events, via an Energy Newsletter mailed with the bill, and through advertising that directs customers to the Responsible By Nature Website; and 2) outreach to business customers via workshops and an electronic newsletter. This evaluation was intended to provide

an initial check for program design and offer insight for directions in which the program could develop further.

### **Logic Model**

A logic model documents information and activity flows between implementers and market actors. The key activities of the CBC program include development of customer and employee education campaigns, creation of events, and business training.

Program activities include an advertising campaign aimed at customers and employees, Xcel Energy's presence at community events, brochures and newsletters with energy-saving tips, and workshops delivered to business customers. Over the short-term, Xcel Energy benefits from increased customer and employee awareness of and participation in energy-efficiency programs available; being viewed as a trusted source for information on energy efficiency; more traffic driven to the Responsible By Nature Website; and decreases in energy consumption. Intermediate-term, benefits include increased load reduction, long-term demand savings, measureable kWh savings directly attributable to programs, and increased customer satisfaction due to lower bills. Additional long-term outcomes include a reduction in the need for additional power plants and rate increases and decreased impacts on the environment. See Figure 1 for further detail.

### **Program Elements**

The program contains multiple elements, including:

- Outreach and advertising to residential customers
- Outreach and advertising to business customers
- Community partnerships
- Data tracking

### **Residential and Business Process Flow Diagrams**

A process flow diagram is a graphical representation of a process flow, consisting of activities and the connections between these activities. Figure 2 is a process flow diagram for the CBC residential segment and Figure 3 is a process flow diagram for the business segment.

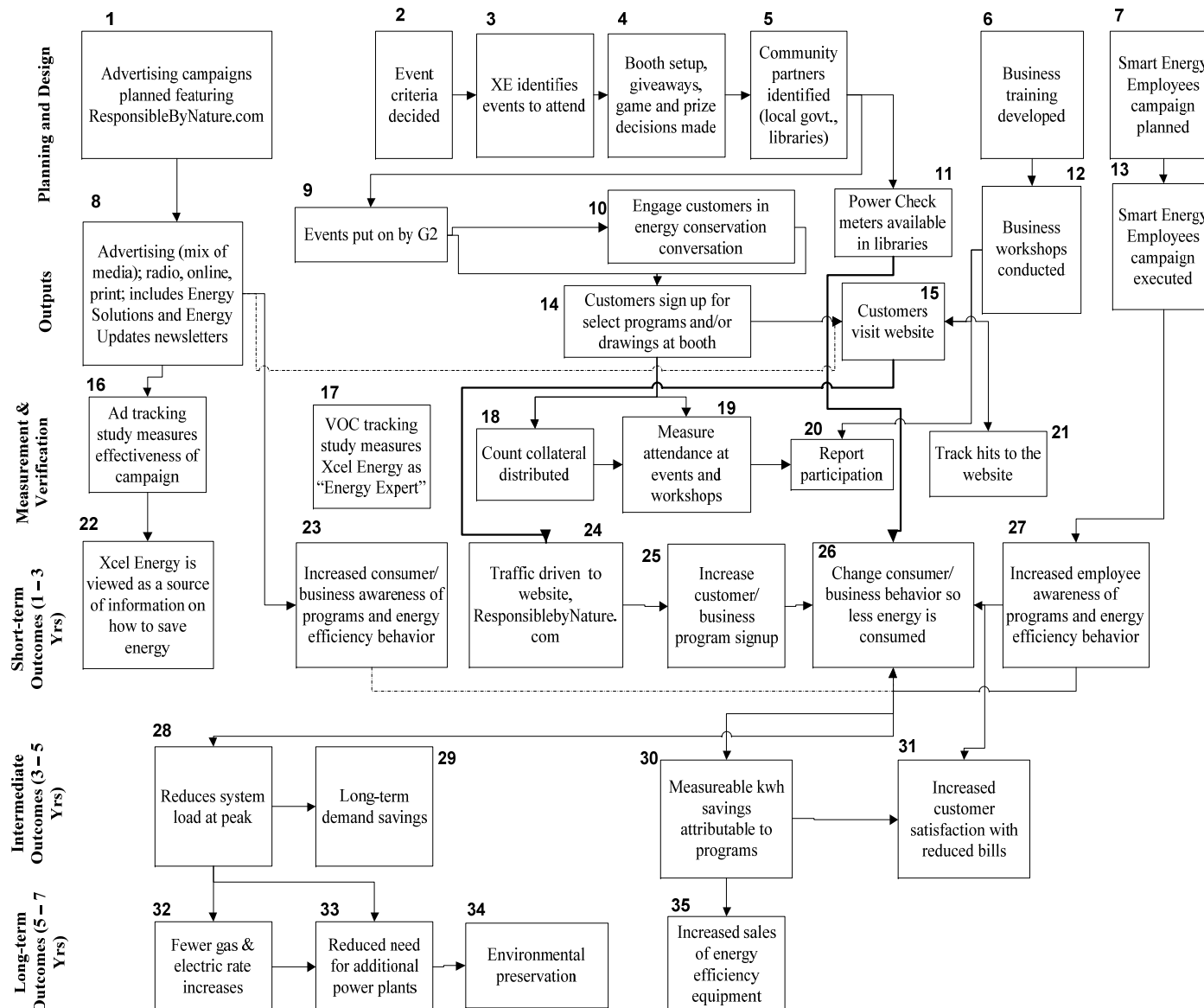
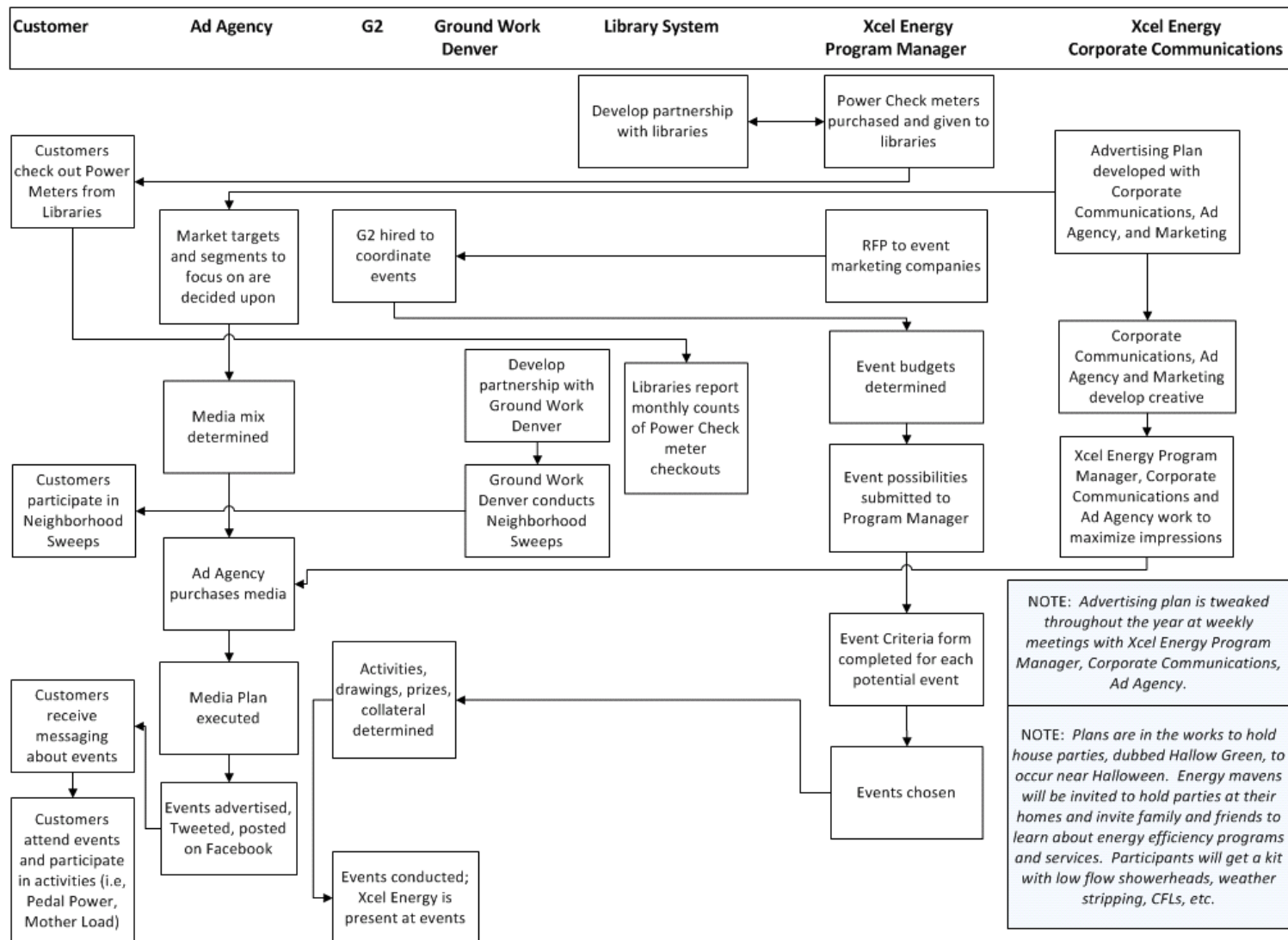
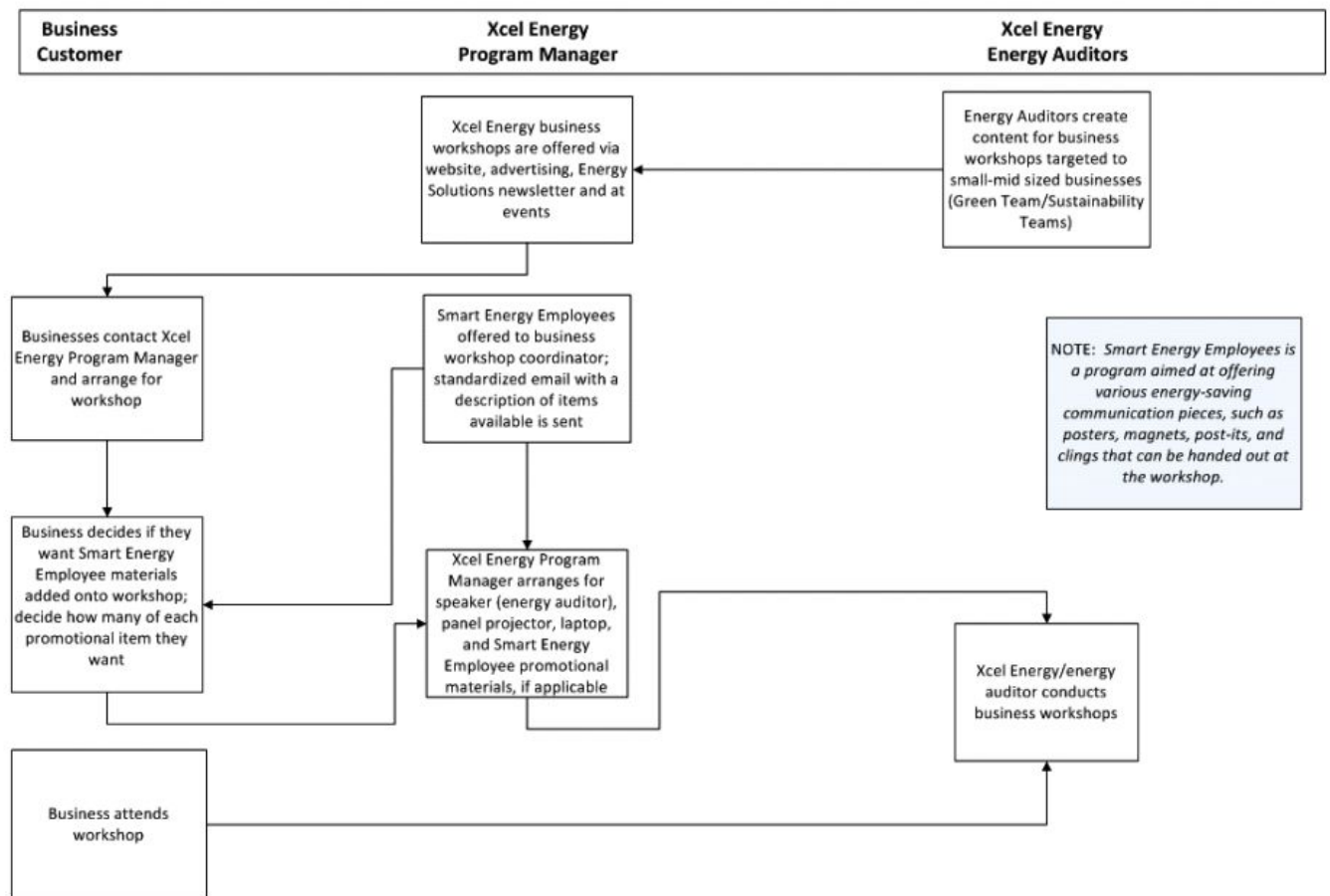
**Figure 1. Customer Behavior Change Logic Model**



Figure 2. Customer Behavior Change Residential Process Flow



**Figure 3. Customer Behavior Change Business Process Flow**

**Table 3. Program Theory and Linkage Table**

Link	Program Theory	Indicators
1	Advertising campaign created – general public	<ul style="list-style-type: none"> <li>Media mix</li> <li>Number of markets</li> </ul>
2-3-4-5	Events determined, partnerships developed	<ul style="list-style-type: none"> <li>Number of events</li> <li>Number of partners</li> <li>Number of expected attendees</li> <li>Events in territory</li> </ul>
6	Business workshops focused on energy efficiency are developed	<ul style="list-style-type: none"> <li>Number of workshops created</li> </ul>
7	Smart Energy Employees awareness campaign created	<ul style="list-style-type: none"> <li>Employee awareness of customer advertising campaign, website, and energy-efficiency programs</li> </ul>
8	Advertising campaign deployed	<ul style="list-style-type: none"> <li>Number of messages by media</li> <li>Number of markets</li> </ul>
9-10	Xcel Energy is present at events	<ul style="list-style-type: none"> <li>Number of events</li> <li>Number of attendees</li> <li>Number of engaged conversations</li> </ul>
11	Power meters checked out by customers	<ul style="list-style-type: none"> <li>Number of times meters are checked out</li> <li>Waiting list to check out meters</li> </ul>
12	Business workshops conducted	<ul style="list-style-type: none"> <li>Number of workshops conducted</li> <li>Number of businesses attending</li> </ul>
13	Smart Energy Employees campaign is launched	<ul style="list-style-type: none"> <li>Number of communications sent to employees</li> </ul>
14	Attendees participate at events	<ul style="list-style-type: none"> <li>Number of program signups at event</li> <li>Number of customers who participate in drawing</li> </ul>
15	Website visited	<ul style="list-style-type: none"> <li>Google Analytics</li> </ul>
16	Advertising tracking program	<ul style="list-style-type: none"> <li>Customer awareness of website</li> <li>Customer awareness of energy efficiency programs</li> <li>Message recall</li> </ul>
17	Voice of the Customer tracking program	<ul style="list-style-type: none"> <li>Xcel Energy has increase in attribute “energy expert”</li> </ul>
18-19-20	Measurement of event success	<ul style="list-style-type: none"> <li>Number of scanned driver's licenses</li> <li>Customers report seeing Xcel Energy at events</li> <li>Number of 'friends' on CBC Facebook</li> <li>Number of followers on CBC Twitter</li> </ul>

Link	Program Theory	Indicators
21	Website activity is captured	<ul style="list-style-type: none"> <li>• Number of hits generated from advertising</li> <li>• Number of hits generated from events</li> <li>• Number of hits generated from business workshops</li> <li>• Amount of time spent on the Website (Google interactions)</li> </ul>
22	Xcel Energy is viewed as a trusted source	<ul style="list-style-type: none"> <li>• Ratings improve on this item in the VOC survey</li> </ul>
23	Customers have higher awareness of energy efficiency programs	<ul style="list-style-type: none"> <li>• Inquiries about programs</li> </ul>
24	Traffic to website increases	<ul style="list-style-type: none"> <li>• Unique hits tied to events, advertising and workshops are counted</li> </ul>
25	Increased participation in energy-efficiency programs	<ul style="list-style-type: none"> <li>• Number of participants in programs attributed to attendance at events or workshops</li> </ul>
26	End-users engage in additional energy conservation activities and behaviors, resulting in continued program participation and additional peak savings as their behaviors take effect.	<ul style="list-style-type: none"> <li>• Reduction in kw and therms as a result of participating in programs and using energy saving tips</li> <li>• Behavior change attributed to attendance at events and workshops</li> </ul>
27	Employee awareness about program	<ul style="list-style-type: none"> <li>• Awareness of advertising campaign, website, and energy efficiency programs increase among employees</li> </ul>
28-34	Increased persistence of load reduction leads to: <ul style="list-style-type: none"> <li>a) Long-term demand savings.</li> <li>b) Fewer rate increases.</li> <li>c) A reduced need for additional power plants.</li> <li>d) Environmental preservation.</li> </ul>	<ul style="list-style-type: none"> <li>a) KW demand during peak hours on both control and non-control days.</li> <li>b) Rate of increase in gas and electric rates for XE customers.</li> <li>c) Number of additional power-generating projects underway.</li> <li>d) Decreased NOx, SOx, and CO2 emissions from utility generating sources.</li> </ul>
35	Increased sales of EE equipment	<ul style="list-style-type: none"> <li>• Year over year comparison of EE equipment sales</li> </ul>

## Outreach and Advertising to Residential customers

This program focuses on creating public awareness of energy conservation while providing residential customers with information on what daily activities that reduce energy usage. Because the demographics for the residential segment are varied, Xcel Energy employs a variety of resources and channels to communicate conservation and energy-efficiency messages. In the initial implementation of the program, emphasis is placed on:

- Community-based events, such as home shows and conservation events
- Online messaging through ResponsiblebyNature.com and other local Websites

- Sponsorship of local Earth Day events
- Conservation messaging through Xcel Energy's newsletters and bill inserts to residential customers
- Publication of reference education materials (in English and Spanish)
- Print, radio, and online advertising
- House Party pilot: providing energy 'champions' with energy-saving information kits to use for a party hosted in their home

### **Outreach and Advertising to Business Customers**

This program targets natural gas and electric business customers, with stronger emphasis on small- to mid-sized customers. As a result of this program, Xcel Energy increases public awareness of energy efficiency and energy conservation, while providing business customers with information on what they can do to reduce energy usage. In the initial implementation of the program, primary emphasis is placed on:

- Energy-efficiency and conservation messaging through E-mail and print newsletters
- Focused customer segment events and sponsorships through business and trade associations
- Customer outreach through energy-efficiency workshops
- Customer employee behavior change campaign, called Smart Energy Employees

### **Community Partnerships**

The CBC program leverages partnerships with local, regional, and state government agencies, as well as non-profit community organizations.

Xcel Energy partners with public libraries on a customer program called Power Meter. Libraries are provided with free watt meters that can measure the amount of electricity various appliances use. Customer can check the device out of participating libraries like a book. This is a pilot program in Denver and is currently being expanded to other locations.

Xcel Energy also sponsors Neighborhood Sweeps in association with Ground Work Denver. Representatives visit residents door-to-door and offer educational materials and energy saving resources - such as CFLs. The program selects one or two neighborhoods each year to visit. Volunteers visit the homes and provide kits and direct installation of energy-efficiency measures.

### **Data Tracking**

Xcel Energy monitors the effectiveness of the program by tracking participation to the various marketing efforts. The method of measuring participation is dependent on the type of channel used to communicate with customers. For example, the number of unique Website visits measures Web-based conservation messaging performance. Conservation promotions are measured by customer impressions. Community event participation is measured by foot traffic at the booth and attendance at the respective events. Direct marketing efforts are measured using

special promotions and response codes. Table 4 and Table 5 list all of the channels and metrics used for tracking participation and exposures to customer education activities.

**Table 4. Residential Marketing Metrics**

Communication Channel	Proposed Metric
Print (Newsletters)	Circulation and average readership
Radio	Maximum audience exposure, number of messages
Customer Events	Number of events, event attendance, number of engaged conversations, number of customers participating in drawing, scanned drivers licenses, collateral distributed, number of program sign-ups
ResponsibleByNature.com	Number of customers aware of Website, number of hits generated from advertising, number of hits generated from events, amount of time spent on Website (Google Analytics)
Facebook	Customer Behavior Change Program Facebook registrations—perhaps using a CBC-specific Facebook page.
Twitter	Number of Customer Behavior Change Program Twitter followers
Power Meter	Number of times meters are checked out, number of people on waiting list to check out meters

**Table 5. Business Marketing Metrics**

Communication Channel	Proposed Metric
Print (Newsletters)	Circulation and average readership
Print (Direct Mail)	Business reply cards, special promotions, or response codes
Customer Segment Events	Number of events, number of companies attending workshops, number of employees attending events, number of engaged conversations, number of program sign-ups
Energy-Efficiency Workshops	Number of workshops, number of companies attending workshops, number of employees attending workshops, number of engaged conversations, number of program sign-ups
Employee Education Campaign	Number of communications sent to employees and companies, number of employees aware of campaign

## Market Barriers

Market barriers for an awareness and education program include:

- Energy as a “low involvement” category,
- The enormous amount of messaging competing for the attention of consumers, (This involves the challenge of developing effective outreach methods and having a message that cuts through the clutter with a call to action),
- Misperceptions about energy-saving measures and behaviors,
- Perceptions that small actions do not lead to significant savings on a household level,
- Financial constraints that make it difficult for residential and business customers to invest in measures that will save energy, and
- The belief among a group within the population that there is no need to conserve and that climate change is not a global threat.

## Program Achievements

The Xcel Energy CBC program was launched in 2009. 97,453 residential customers participated in the program, exceeding the enrollment goal of 60,000. 2,325 business customers participated in the program, exceeding the enrollment goal of 1,978 (see Table 6).

**Table 6. Customer Behavior Change Program Comparison by Sector**

	Residential	Business
Program Year	2009	2009
2009 Enrollment Goals	60,000	1,978
2009 Participation	97,453	2,325

## Report Overview

This report is organized into five additional chapters.

- Chapter 3 describes the methods used to collect data for this evaluation.
- Chapter 4 provides a summary of interviews with program staff, contractors, and advertising and communication staff.
- Chapter 5 discusses findings from the residential participant surveys.
- Chapter 6 highlights findings from the business participant surveys.
- Chapter 7 summarizes the findings from the benchmarking study.

Appendices are included separately with copies of all data collection instruments and example marketing collateral.

### 3. Data Collection Activities

#### Overview of Data Collection Activities

This chapter describes the method used and data collection activities conducted for this evaluation. As outlined in the evaluation plan, key tasks conducted during this evaluation included:

- Internal Program Staff Interviews (n= 9)
- End-User Surveys:
  - Participant Surveys (n= 667)
    - Residential (n=422)
    - Business (n=245)
- Benchmarking (n=17 programs)

#### Internal Program Staff Interviews

Integrative Growth conducted nine in-depth interviews with Xcel Energy program staff, contractors, and advertising and communications staff. These interviews were used to assess the processes involved in delivering the program, effectiveness of those processes, and the basic theory on which the program is designed. Topics covered in the interviews included:

- The goals and objectives of the program, and how they have changed over the life of the program.
- The key market barriers to participation in the program, and activities designed to address those barriers.
- The most successful and least successful aspects of the program design process.
- How the program activities are delivered, the roles of the various parties involved, and Xcel Energy's involvement in delivery.
- Overall program function, including event promotion and implementation.
- How customers get involved in the program, internal inspections/verifications, and participant tracking.
- Program reporting processes, including quality control for reporting and tracking, as well as accuracy and timeliness of data collected.
- Confidence in the program's ability to meet its goals in the coming year.
- Promotional activities that have worked and not worked.
- Customers response to the program, complaints received, and challenges for participation.
- Future development of the program.



The interviews focused on three key program areas: program staff, contractors, and advertising and communications staff. Table 7 identifies each of the program staff interviewed by Integrative Growth.

**Table 7. Program Interviews by Program Area and Staff Role**

Program Area	Total
Program Staff	3
Contractors	3
Advertising & Communications Staff	3

## Participant Surveys

Cadmus employed Population Research Systems (PRS) to conduct the residential and business participant surveys. Both existing residential and business participants were included, although separate surveys were administered. Xcel Energy provided a sample of current residential and business participants; interviews were conducted by PRS via random selection from this sample.

Survey objectives varied by category (i.e., residential and business), but primarily focused on collecting data in the following areas:

- Number and percent of customers reached or made aware of the program;
- Number and percent of customers reached that take energy saving actions;
- Number and type of actions taken as a result of the program;
- Changes in awareness or knowledge by topic or subject area, by type of customer targeted;
- Customer perception of the value of the information and/or education received;
- Attribution of cause for actions taken when multiple causes may be associated with the actions taken;
- Demographic, firmographic, or psychographic information as appropriate;
- Influence of program on participation in other DSM programs; and
- Identification of barriers experienced, and the development of recommendations for addressing those barriers.

Xcel Energy supplied a list of residential customers that had previously provided their contact information at one of the program's outreach events. This list was then matched to the Xcel Energy billing database to verify customer status. For those listed that could be matched on the contact information provided by the customer, PRIZM segmentation codes were appended to each record. The matched list was cleaned to remove records with no telephone number and customers that had been recently surveyed. This process resulted in a sample file of 2,325 residential records.

The program also provided a list of business customers who had signed up for a workshop or the newsletter. A process similar to the residential process for cleaning and verifying the list was employed to develop a sample file of 1,040 business customer records.

All end-user survey instruments are included in Appendix A.

Survey completion quotas were selected to ensure a 90/10 confidence level, see Table 8.

**Table 8. Survey Completes**

Category	Total
Residential	422
Business	245
Total	667

Detailed survey findings are provided in Chapter 5 of this report for residential participants and in Chapter 6 for business participants. Differences described are considered statistically significant at the 95/5 confidence level unless indicated as “directional” for small sample sizes.

Frequencies of actual completed surveys by each item are included in this report’s Findings section (Appendix B).

## 4. Internal Program Staff Interviews

### Internal Program Staff Interview Findings

Below are key findings from the program staff interviews:

#### **The CBC program is a success**

- The program is exceeding its goal in terms of number of participants.
- Awareness numbers are improving based on measures from the Website.
- G2, the contractor responsible for events, provides a skillful service that is reliable and supportive of the goal of customer interaction.
- Responses from customers at events have been very positive. Activities such as Pedal Power and Mother Load (two interactive activities customers can participate in at CBC-sponsored booths) are fun and engaging for participants.
- Local government and community groups are open to partnering with Xcel Energy on energy-efficiency programs and initiatives.

#### **Primary program goals are awareness and behavior change**

- Program staff reported that a primary goal of the program is to increase customer awareness of energy conservation programs.
- The ultimate goal reported by program staff is to change customer behavior regarding energy consumption.

#### **Communication is a key market barrier to program participation**

- Awareness of where events are taking place could be improved by conducting multiple initiatives within a given market, including advertising, events, and community partnerships.
- Campaigns should be engaging to all types of individuals, and include sound bites that are catching.
- Program staff members believe that effective events that are well-branded, professional, and fun will increase program success.

#### **Many customers are not seeking out information - but it finds them**

- Customers get involved in the program by being exposed to media, advertising, and the Website.
- Customers see the Xcel Energy booth at events. Exhibits are set up to engage customers in activities regarding energy conservation.

**Program reporting processes are generally informal, yet adequate**

- Program participation is tracked by performing counts of participants, collateral, give-a-ways, and driver's license swipes.
- No verification of event counts or Website hits are currently being conducted.
- One program staff member mentioned that data is collected from various sources, a weekly report is produced, and the weekly reports are consolidated into quarterly and annual reports. Another program staff member mentioned that data was entered into an Interactions Chart.

**Getting feedback from program participants and meeting attendees was viewed as a future development for the program**

- Most program staff reported that they do not conduct any sort of follow up with event attendees and staff, but they view follow up as an area they would like to develop further and are planning for future events.
- Program staff mentioned they are planning to develop the program further by evaluating and getting feedback on existing programs/campaigns and making enhancements or expanding current offerings.
- Automating data captures, such as driver's license swipes, was also mentioned as a tracking method they intend to continue and use more frequently to improve accuracy of contact information collected.

## 5. Residential Participant Surveys

### Summary

**Residential customers surveyed were highly engaged, as they had offered their contact information upon participating in at least one of the CBC program's outreach activities.**

Over 90% were aware of the ways they use energy in their homes, nearly 90% indicated they knew what could be done to control their energy bills, and 85% acknowledged that by using less electricity they were doing their part to help the environment. In addition, over 80% said saving energy is important compared to other household concerns, and over three-quarters reported that environmental issues are important compared to other household concerns.

**Residential customers reported high awareness of Xcel Energy tips (73%) and programs (54%).** Bill inserts were the most frequently cited source of information about energy-saving tips (68%), and was also the preferred communication means (46%). (Note: The CBC Energy Newsletters are sent with the bill and are likely considered by customers to be bill inserts.) Awareness of the Xcel Energy booth or representative(s) at community events was low (38%) considering contact information for respondents was obtained primarily at these events. Awareness of the Responsible By Nature Website was also low (16%). When asked about Xcel Energy programs, residential customers were most likely to know about Saver's Switch (63%) and rebate programs (42%). Of all the energy-efficient activities promoted by the program, residential customers indicated the highest level of awareness for HVAC tips and programs (31%) and lighting (24%).

**Actions taken most often include turning off lights, purchasing and installing CFLs, and adjusting space heating and cooling temperature.** Forty percent of those that had taken action attributed the action to information provided by Xcel Energy, and among these 60% indicated that the information from Xcel Energy was important in their decision to take action. Financial reasons (34%) and the desire to protect the environment and conserve (23%) were the primary other influences for taking action. Most residential customers (83%) stated that other members of the household were also taking energy saving action.

**Xcel Energy's presence at community events had a positive impact on residential customer actions.** Residential customers who attended an event and saw the Xcel Energy booth or a representative were more likely to:

- Have installed CFLs
- Say they participated in an energy-saving program or received a rebate from Xcel Energy in the past year
- Say they would take additional energy-saving actions in the household in the next year
- Say that other members of their household were also taking energy-saving actions

**Customers who were aware of the Xcel Energy booth or representative(s) at an event were more satisfied with Xcel Energy (86% v 79%).**

Residential customers reported moderate satisfaction with Xcel Energy, with 82% giving a rating of 6 – 10 on a 0-10 scale for satisfaction, where 0 was not at all satisfied and 10 was completely

satisfied. In addition, 78% indicated satisfaction with the energy-saving information for residential customers provided by Xcel Energy.

Residential customer actions varied by PRIZM<sup>2</sup> segment, as show in Table 9.

**Table 9. PRIZM Segment Actions Taken**

Behavior/Action	Targeted: <ul style="list-style-type: none"> <li>Accumulated Wealth</li> <li>Young Accumulators</li> <li>Affluent Empty Nests</li> <li>Conservative Classics</li> </ul>	Non-Targeted: <ul style="list-style-type: none"> <li>Sustaining Families</li> <li>Sustaining Seniors</li> <li>Mainstream Families</li> <li>Cautious Couples</li> <li>Midlife Success</li> <li>Young Achievers</li> <li>Striving Singles</li> </ul>
Participated in Xcel Energy program or received rebate	31%*	16%
Installed CFL	87%*	75%
Turndown temperature of hot water heater	53%	43%
Purchase energy-efficient appliance	61%	53%
Installed programmable thermostat	68%*	51%
Had an energy audit	13%	8%

\*Significant at the .95 CL; others statistically significant at the .90 CL

**Fewer than half (42%) of residential customers said that incorporating energy-saving actions into their life is challenging.** Nearly one-quarter (22%) reported that they are not likely to take additional energy-saving actions in the next year. Of those who are not likely to take action in the next year, nearly one-third indicated cost as the primary barrier and nearly one-fourth believed they had already done everything they could to be energy efficient. Program efforts to increase awareness of rebate programs and low or no-cost energy saving actions are intended to address these barriers.

**Nearly half of residential customers noticed that their home became more comfortable as a result after taking energy-saving actions.** About half of these mentioned more comfortable heating and cooling temperatures, and that new windows or doors improved the temperature comfort level in their home. Eleven percent mentioned that the home felt less comfortable (warmer and more humid) since they took action.

**Nearly one-fourth of residential customers had participated in an energy-saving program or received a rebate offered by Xcel Energy within the past twelve months.** Among those participating just over half (52%) enrolled in the Saver's Switch program and 44% received a rebate. Of the rebate programs, furnace rebates were mentioned most often at 20%. Over three-fourths (77%) of customers said they did not participate in an energy-saving program or receive

<sup>2</sup> Xcel Energy has selected the Nielsen Claritas comprehensive consumer segmentation system, PRIZM for marketing segmentation across all DSM programs. For more information see the Nielsen Claritas Website: [http://en-us.nielsen.com/tab/product\\_families/nielsen\\_claritas/prizm](http://en-us.nielsen.com/tab/product_families/nielsen_claritas/prizm).

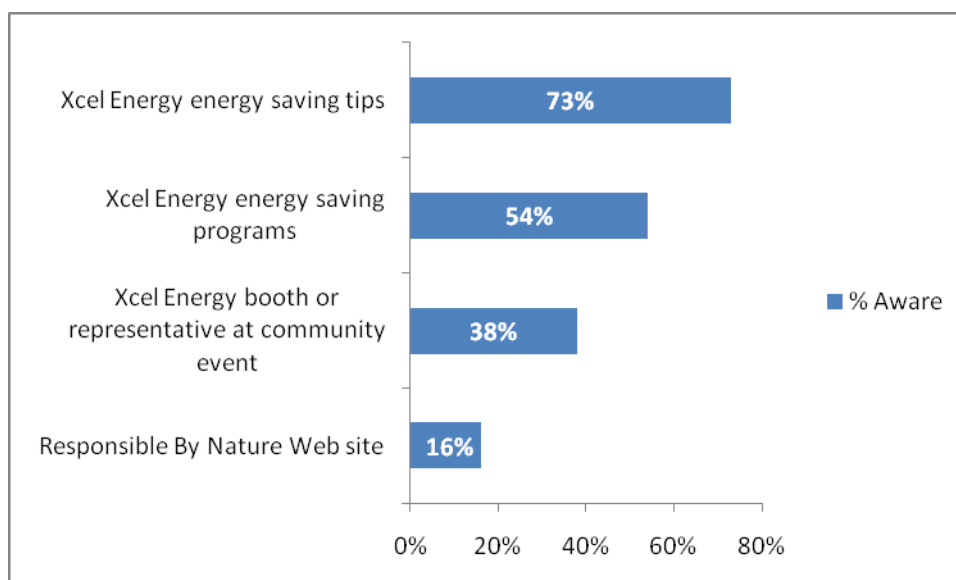
a rebate. The primary reasons reported for not participating were lack of awareness of programs offered (39%), and not knowing where to find information about programs (15%).

## Detail Findings

### Awareness Summary

Among residential customers, there was a high degree of awareness of energy-saving tips, with 73% able to name at least one tip. Over half were also able to name an energy-saving program offered by Xcel Energy. Nearly 40% saw the Xcel Energy booth or a representative at a community event. Awareness of the Responsible By Nature Website was reported low at 16%.

**Figure 4. Residential Customer Awareness Levels, n=422**



Q5. Have you seen or heard any energy-saving tips from Xcel Energy within the past 12 months? Yes/No

Q8. What energy-saving programs from Xcel Energy have you heard of? Residential customers who offered an Xcel Energy program were coded as "aware."

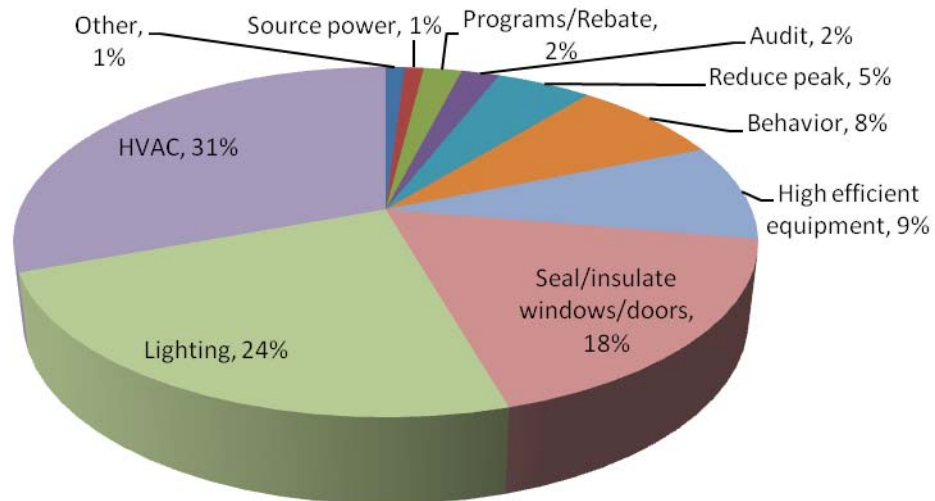
Q15. Do you remember seeing an Xcel Energy booth or representative at a community event within the past 12 months? Attended event and saw Xcel Energy booth or rep (Aware); Attended event, but did not see booth or rep, Have not been to an event within the past 12 months, and Attended event, but did not see booth or rep, and have not been to an event within the past 12 months (Not Aware).

Q9. Have you heard about the Responsible By Nature Website from Xcel Energy? Yes/No

## Awareness of Energy Savings Tips

Nearly three-quarters of residential customers reported having seen or heard energy-saving tips from Xcel Energy within the past 12 months. The tips seen or heard most often include HVAC (31%), lighting (24%), and sealing and insulating windows and doors (18%).

**Figure 5. Energy Saving Tips Seen or Heard**

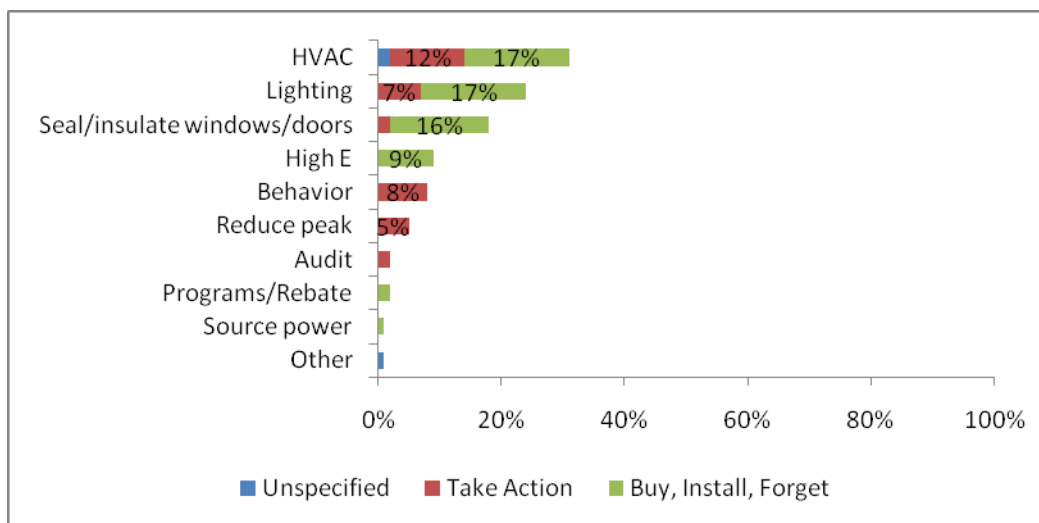


Q6. What tips did you see or hear? (based to responses, n=361)



The tips shown in Figure 6 are categorized as behavioral or long term. For lighting, turning off lights is classified as behavioral (actions that must be repeated over and over again), while installing CFLs have a long-term effect. For HVAC, manually turning the thermostat up or down is behavioral, while purchasing an energy-efficient HVAC system or programming the thermostat has a long-term effect. Residential customers name a higher percentage of tips that have a long-term effect.

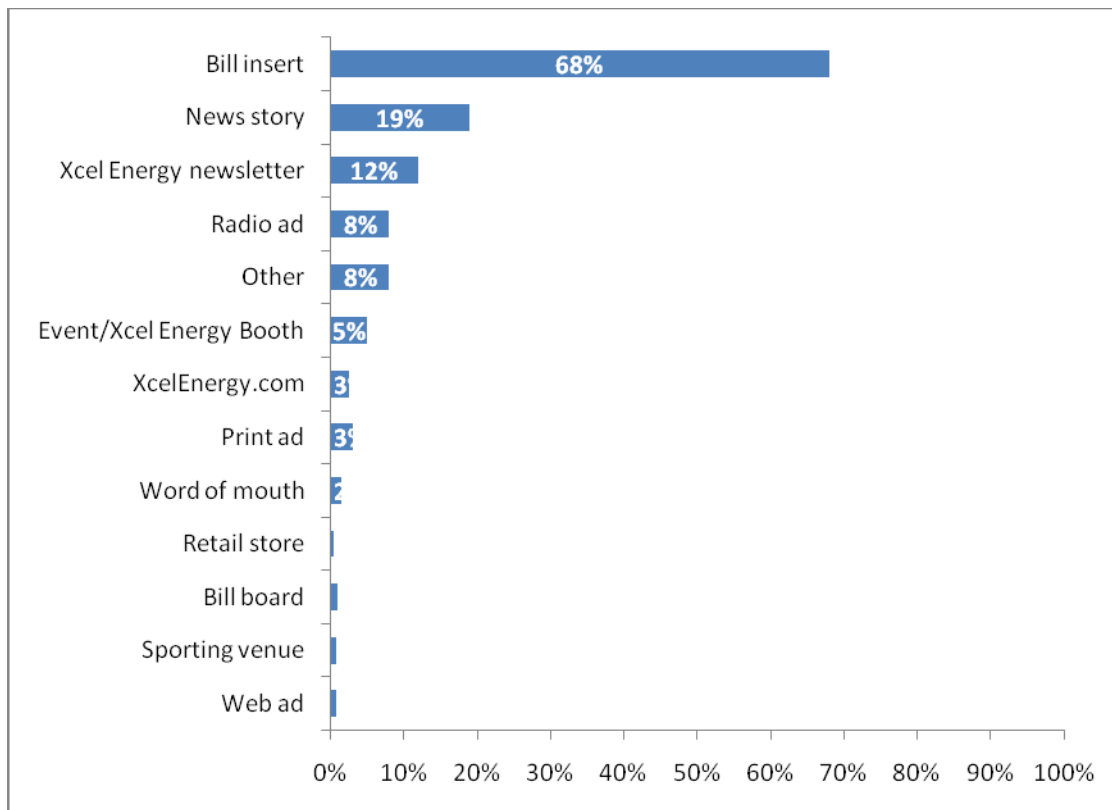
**Figure 6. Tips Categorized as Behavioral versus Long-term Effect**



Q6. What tips did you see or hear? (Based to responses, n=361)

The most frequently named source for tips is information provided with the bill (68%), followed by a news story (19%). See Figure 7.

**Figure 7. Source of Awareness, n=296**

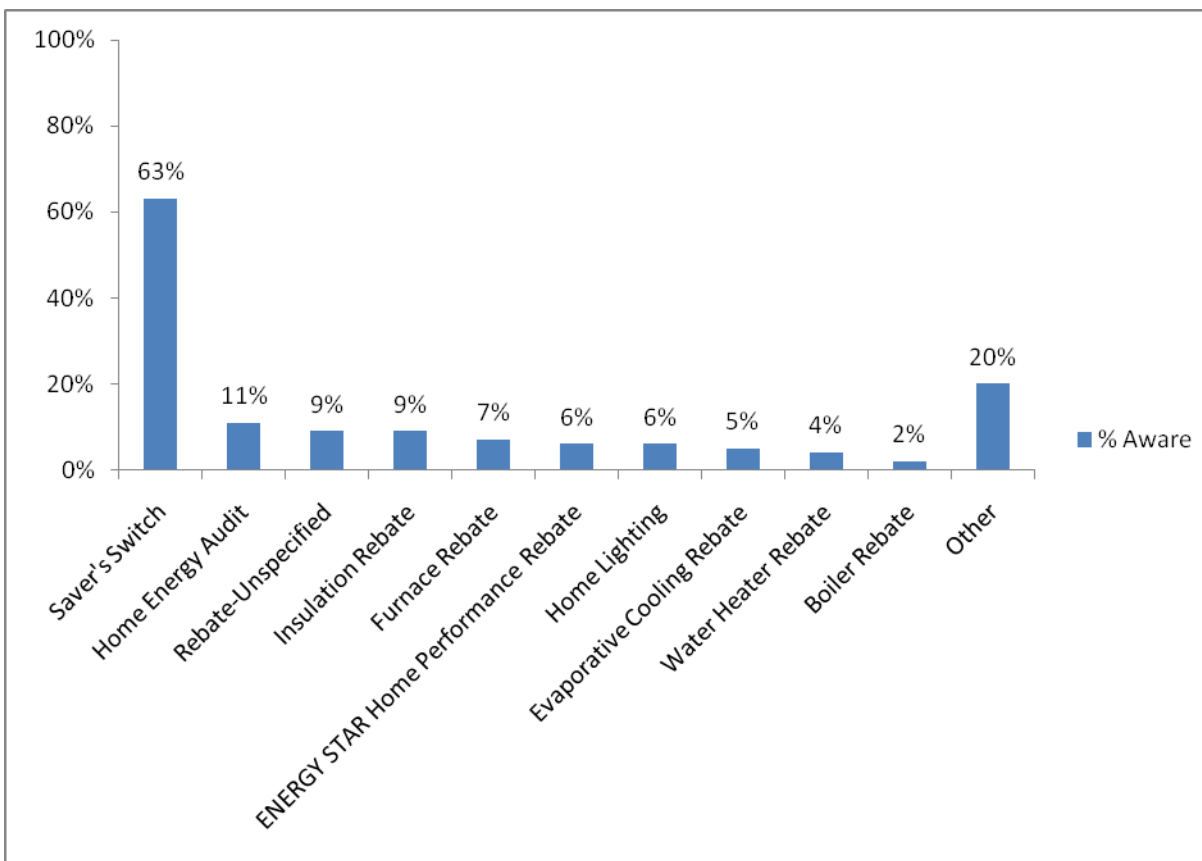


Q7. How did you hear (or read) about the energy-saving tip(s)?

## Awareness of Energy Saving Programs

When asked on an unaided basis to name a program offered by Xcel Energy, 54% of residential customers were able to name a program. The Saver's Switch program received the most mentions (63%), followed by rebate programs (42%). Twenty percent of mentions are in an "Other" category, and include renewable power and the heat bill assistance program L.E.A.P.

**Figure 8. Awareness of Energy Saving Programs, n=186**

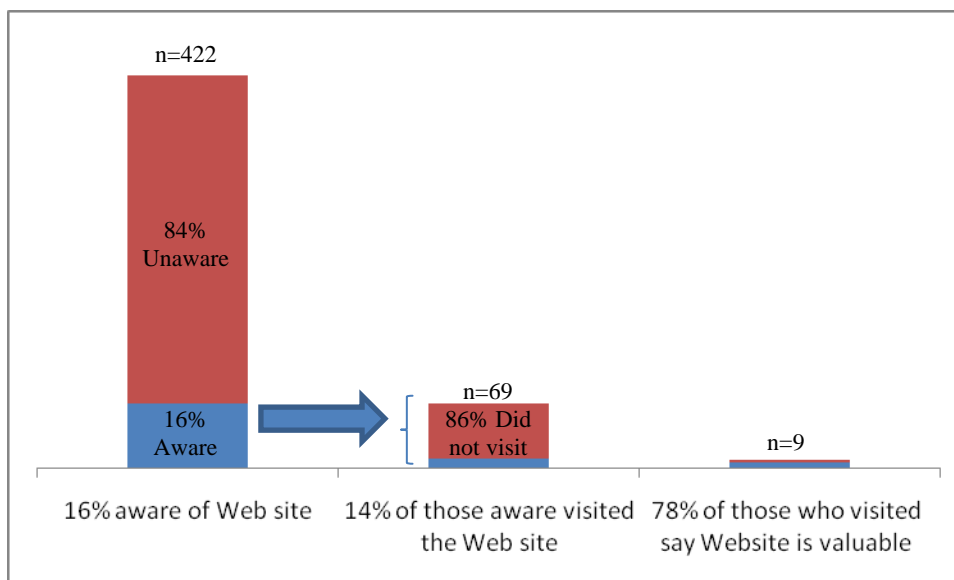


Q8. What energy-savings programs from Xcel Energy have you heard of?

## Awareness of Responsible By Nature Website

When asked about awareness of the Responsible By Nature Website, 16% of residential customers said they had heard of it. A small percentage (14%) of those aware visited the site. Most who visited the site found it to be of value.

**Figure 9. Awareness of ResponsibleByNature.com**



Q9. Have you heard about the “Responsible By Nature” Website from Xcel Energy?

q11. Have you visited the Website?

Q13. On a scale of 0 to 10 where 0 means not at all valuable and 10 means very valuable, how valuable was the information on the “Responsible By Nature” Website? Chart depicts responses of 6 – 10.

**Residential customers who reported hearing about the Responsible By Nature Website were more likely to say they will take energy-saving actions in their households in the next 12 months** (77% likely versus 63% of those who have not heard of ResponsibleByNature.com).

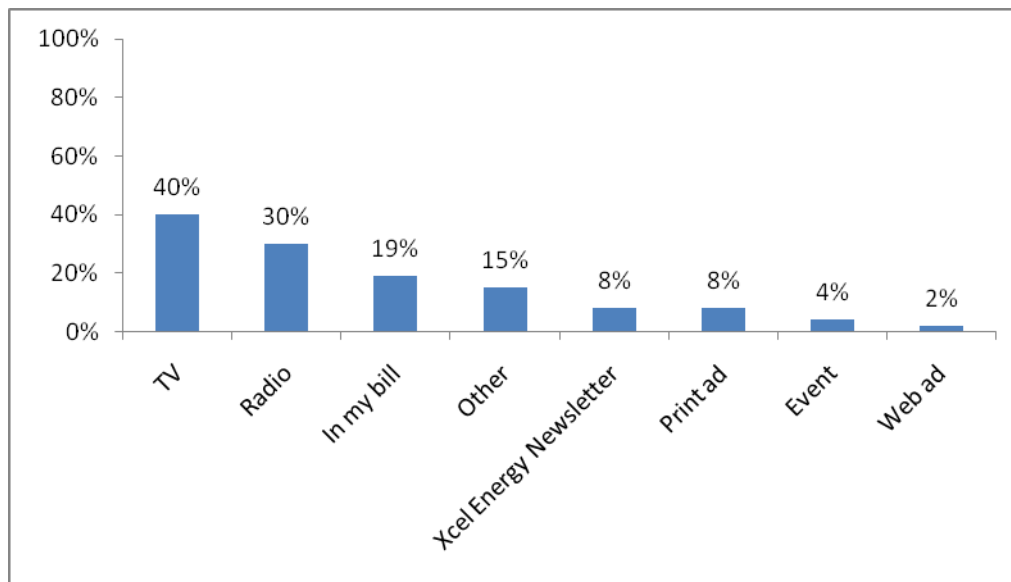
**Higher income residents were more likely to have heard about the Responsible By Nature Website** (94% who earn less than a \$25,000 income are likely to say they have not heard about ResponsibleByNature.com, and 73% who earn an income of \$50,000 - \$75,000 have not heard about ResponsibleByNature.com).

Seven of the nine residential customers who visited the Website found the information on ResponsibleByNature.com to be valuable. When asked their suggestions for improving the Website, one residential customer suggested that Xcel Energy “*get the word out that valuable information is on the Website.*” Another said that “*the Website could be easier to navigate,*” and five others had no suggestions for improvement.

Five of the ten who went to the Website could not recall which ResponsibleByNature.com Web pages they had visited. Four said they visited the energy smart tips page, three mentioned pages with information on rebate programs for the home, two mentioned the interaction/illustrated Energy Smart Home, and two mentioned programs and tips for businesses.

Forty percent of residential customers said they heard about ResponsibleByNature.com on television, and 30% heard about the Website from radio. Very few residential customers had heard about ResponsibleByNature.com through a Web ad or event.

**Figure 10. Sources of Awareness of ResponsibleByNature.com, n=53**

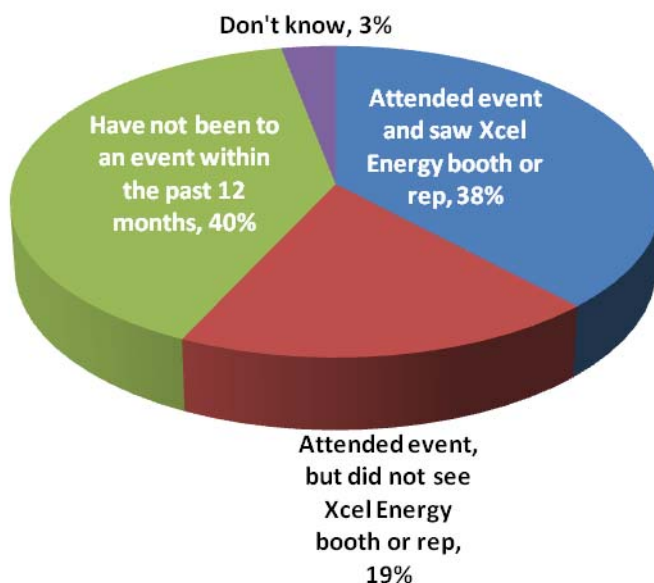


Q10. How did you hear about the Website?

## Awareness of Xcel Energy at Community Events

Residential customers were asked if they remembered seeing an Xcel Energy booth or representative at a community event within the past 12 months. Thirty-eight percent answered “yes” to this question and are categorized as Aware. Nineteen percent attended an event but did not see the Xcel Energy booth or rep, 40% had not been to an event within the past 12 months, and 3% answered “don’t know” and are categorized as Not Aware.

**Figure 11. Awareness of Xcel Energy at Community Events, n=422**



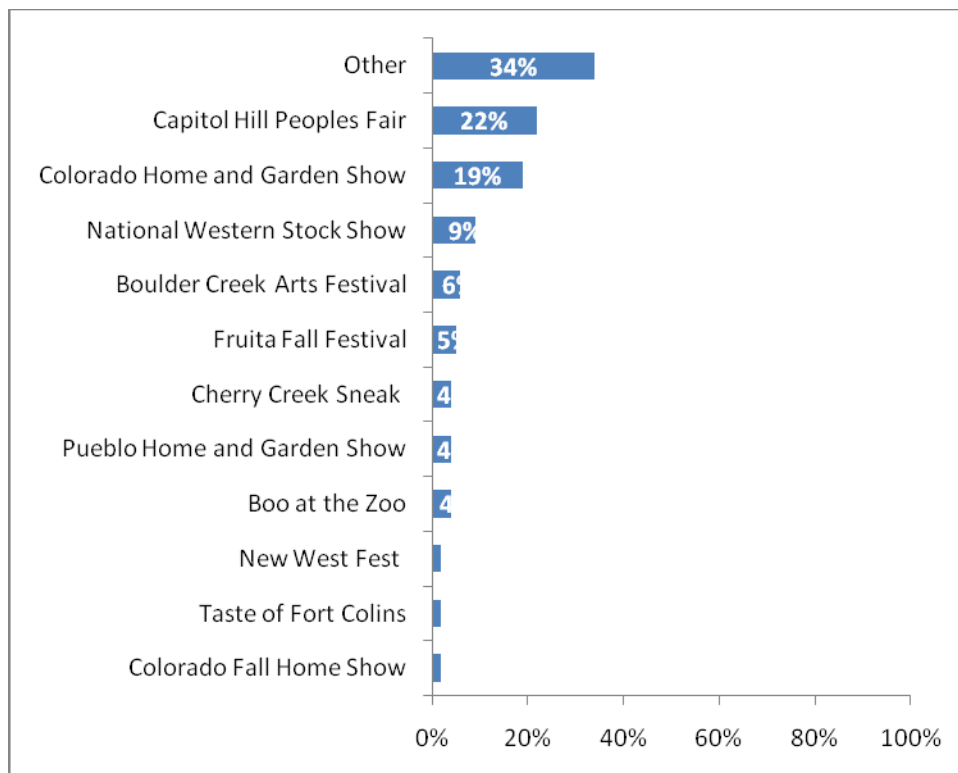
Q15. Do you remember seeing an Xcel Energy booth or representative at a community event within the past 12 months? Unaided response options: Attended event and saw Xcel Energy booth or rep, Attended event but did not see booth or rep, Have not been to an event within the past 12 months, Don't Know.

Xcel Energy’s presence at community events has a positive impact on customer awareness and behavior. Residential customers who attended an event and saw the Xcel Energy booth or representative are more likely to:

- Say they participated in an energy-saving program or received a rebate from Xcel Energy in the past year.
- Say they will take additional energy-saving actions in the household in the next year.
- Agree with the statement, “*I know what I can do to control my energy bills.*”
- Have installed CFLs.
- Say that other members of their household are also taking energy-saving actions.

Residential customers were asked which community event they attended in the past 12 months. “Other” was the most common response at 34%, and included neighborhood meetings and picnics, farmer’s markets, and Parker Day. The top two specific events residential customers attended were the Capitol Hill Peoples Fair (22%) and the Colorado Home and Garden Show (19%).

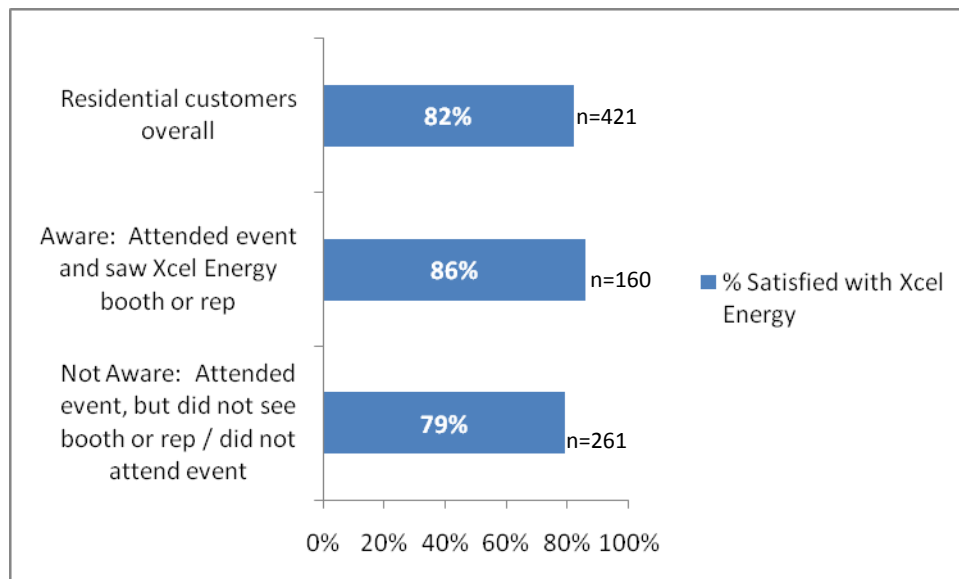
**Figure 12. Events Attended in the Past 12 Months, n=221**



Q15a. Which event did you attend?

Residential customers who attended community events and saw an Xcel Energy booth or representative were more satisfied<sup>3</sup> overall with Xcel Energy than those who attended an event but did not see the Xcel Energy booth or a representative, or did not attend an event (see Figure 13).

**Figure 13. Satisfaction by Presence at Community Events**



Q2. On a scale of 0-10, where 0 means you are not at all satisfied and 10 means you are completely satisfied, how would you rate your satisfaction with Xcel Energy? Chart depicts responses of 6 to 10.

Q15. Do you remember seeing an Xcel Energy booth or representative at a community event within the past 12 months?

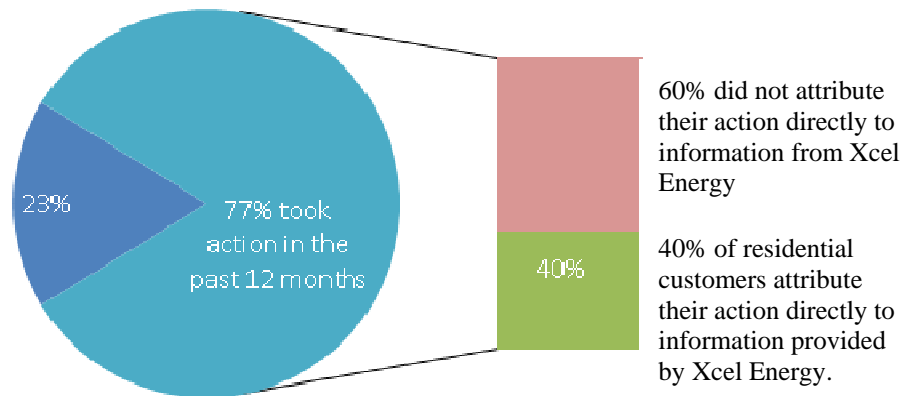
Unaided response options: Aware = Attended event and saw Xcel Energy booth or rep; Not aware = Have not been to an event within the past 12 months / Attended event, but did not see booth or rep / Don't Know.

<sup>3</sup> Statistically significant at a 95% confidence level.



Seventy-seven percent of customers were able to name an action they had taken in the past 12 months to save energy, and 40% of those who took action attributed it to information they received from Xcel Energy (see Figure 14). The most frequently mentioned actions were lighting (34%) and HVAC (30%). See Figure 15).

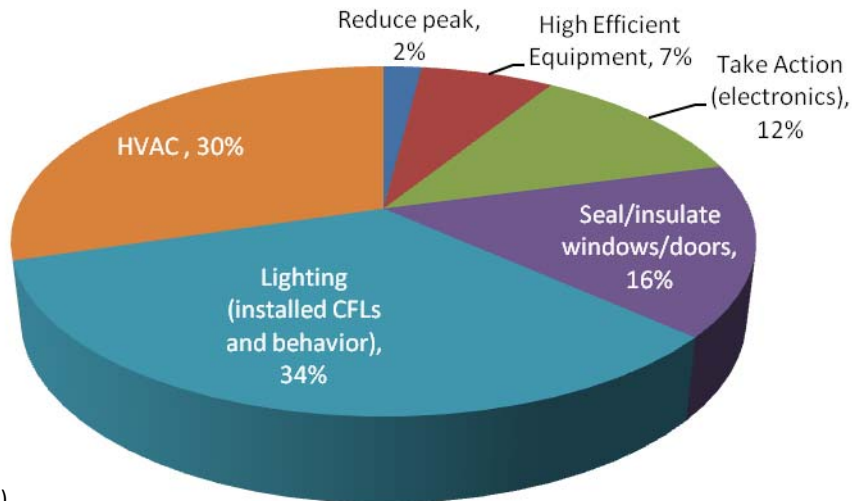
**Figure 14. Taken Action, n=422**



Q16. Have you taken any actions in the past 12 months to save energy in your home? n=417

Q17. Are any of these actions a direct result of information you received from Xcel Energy? n=337

**Figure 15. Actions Taken to Save Energy: Unaided**

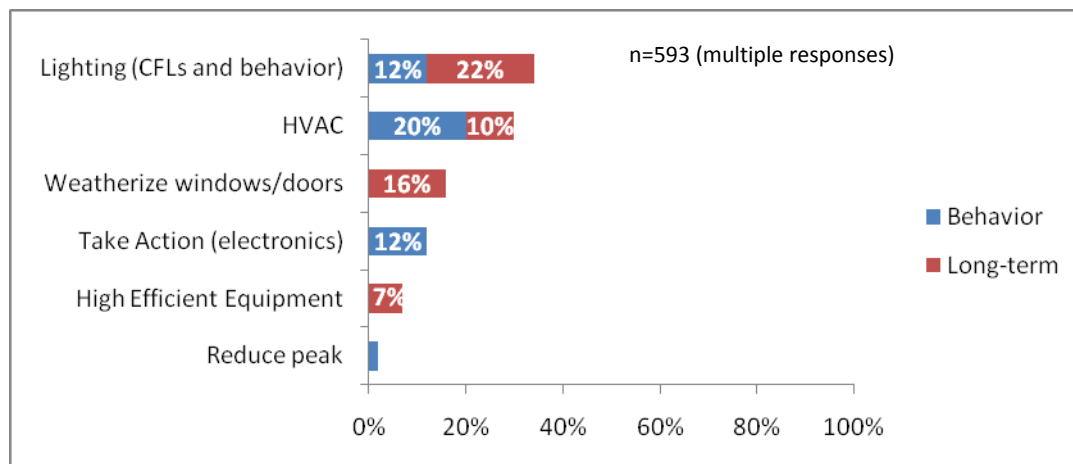


n=593 (multiple responses)

18. Please share what [energy-saving] actions you have taken. (unaided)

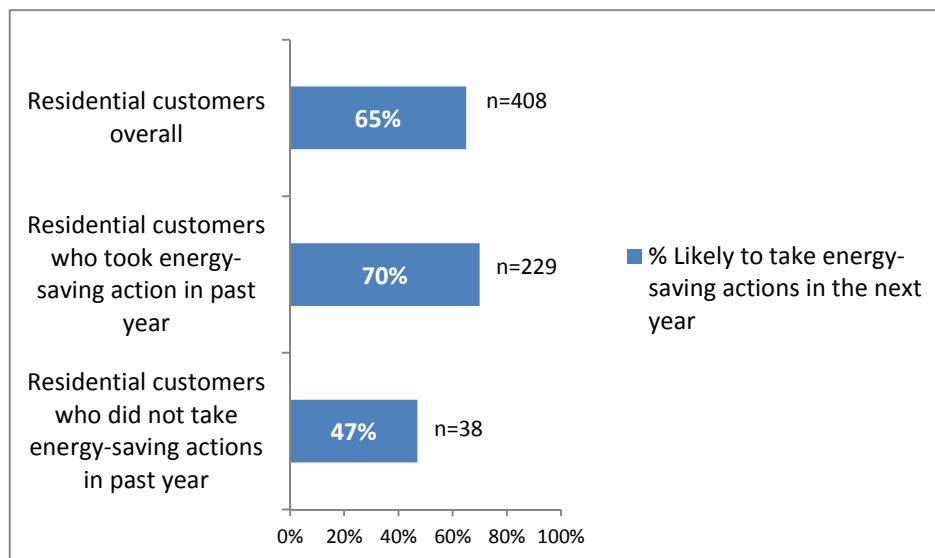
Actions were classified as either behavioral or long term. Lighting behaviors include turning off lights in rooms that are unoccupied, while examples of long-term actions include installing CFLs. HVAC behaviors include not using air conditioning, closing blinds, and turning the thermostat up or down (as appropriate), while long-term actions include using auto settings on the thermostat. The 'Take Action' category includes turning off and/or unplugging electronics when not in use and keeping doors and windows closed. High Efficient Equipment includes adding low-flow shower heads and energy efficient appliances.

**Figure 16. Actions Classified as Behavior or Long Term: Unaided**



Residential customers who have taken energy-saving actions in the past 12 months are significantly more likely to say they will take additional energy-saving actions in the household in the next year (see Figure 17).

**Figure 17. Past and Future Energy Saving Behavior**

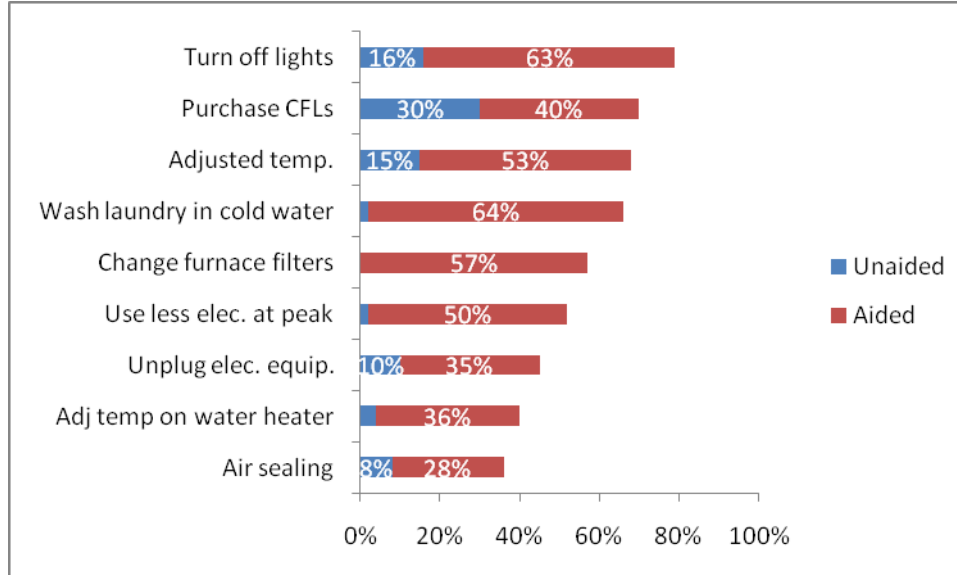


Q16. Have you taken any actions in the past 12 months to save energy in your home?

Q22. How likely is it that you will take additional energy-savings actions in your household in the next year? (On a scale of 0-10, where 0 means you are not likely to take action and 10 means you are very likely to take action). Chart depicts responses of 6 – 10.

Customers were also asked on an aided basis about actions they may have taken. Those that volunteered actions in the unaided question were not asked again about the same actions. Figure 18 shows that a majority of customers acknowledged taking specific actions when prompted with those behaviors. Lighting remains the top category of actions taken with aided and unaided responses combined. Actions such as washing laundry in cold water and changing furnace filters were not mentioned frequently on an unaided basis, but when prompted, many indicated they are doing these things.

**Figure 18. Actions Taken by Residential customers: Unaided and Aided Responses, n=422**



Q18. Please share what actions you have taken (unaided).

Q19. I will read through some energy-saving actions you may have heard about. Please let me know if these are actions you have taken in your home within the past 12 months (aided).

In order to establish the level of persistence and/or degree of actions taken, customers were asked follow-up questions to the actions they acknowledged taking. A majority of behaviors associated with lighting and washing laundry in cold water are performed on a regular basis. Actions taken to unplug electronic equipment are performed on a more occasional basis. Table 10 shows the frequencies of behaviors and energy-saving purchases.

**Table 10. Frequency of Performing Actions to Save Energy**

Action	Frequency		
	Always	Sometimes	Rarely
Turned off lights	87%	12%	1%
Washed laundry in cold water	55%	44%	1%
Unplugged electronic equip.	40%	54%	5%
Installed CFL bulbs	1 – 10 bulbs 55%	11 – 20 bulbs 32%	21 – 50 bulbs 13%
Replaced furnace filter (within past 12 months)	1 – 2 filters 36%	3 – 4 filters 29%	5 filters 36%

Q18. Please share what actions you have taken (unaided).

Q18a. How often do you [take the action]?

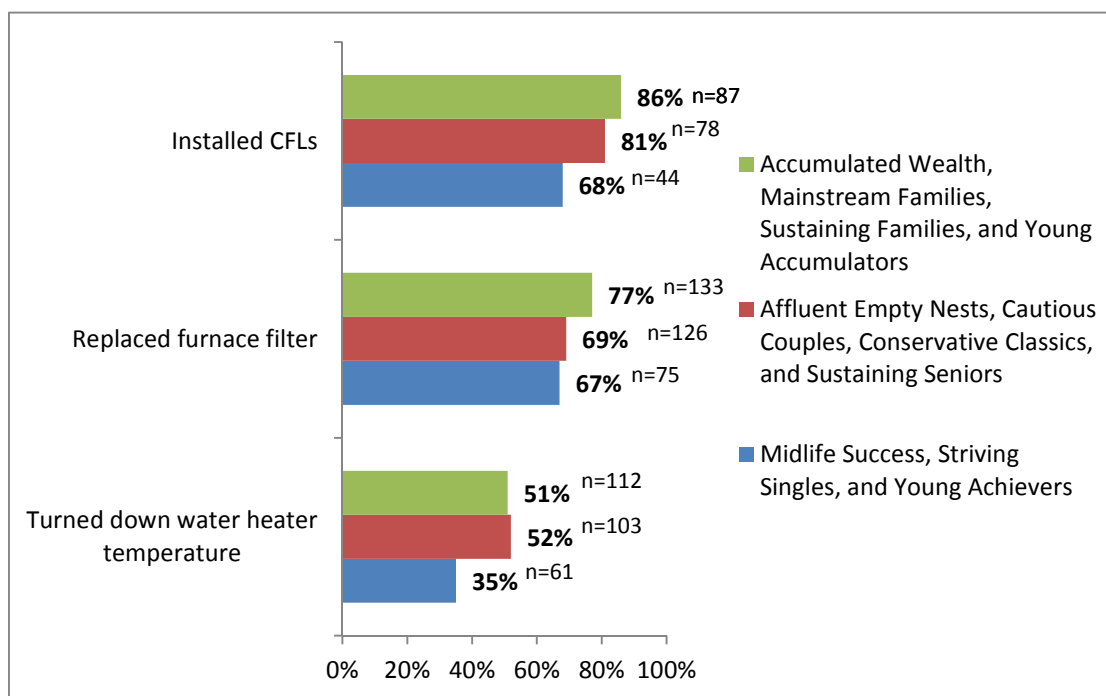
Q19. Have you [measure-specific]? (aided)

Q19a. How often?

Some energy-saving actions performed by residential customers in the past 12 months vary by PRIZM segment (see Figure 19):

- More Accumulated Wealth, Mainstream Families, Sustaining Families, and Young Accumulators said they installed CFLs in the past 12 months than Midlife Success, Striving Singles, and Young Achievers (86% versus 68%).
- More Accumulated Wealth, Mainstream Families, Sustaining Families, and Young Accumulators said they replaced the furnace filter in the past 12 months than Midlife Success, Striving Singles, and Young Achievers (77% versus 67%).
- More Accumulated Wealth, Mainstream Families, Sustaining Families, and Young Accumulators - as well as Affluent Empty Nests, Cautious Couples, Conservative Classics, and Sustaining Seniors - said they turned down the water heater temperature in the past 12 months than Midlife Success, Striving Singles and Young Achievers (51% and 52% versus 35%).

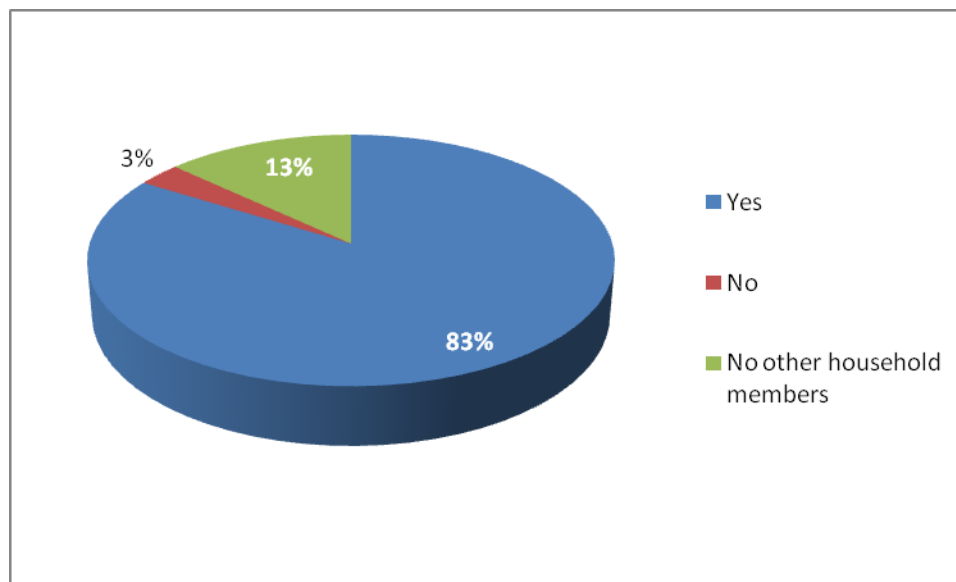
**Figure 19. Residential Customer Actions Taken (Aided) by PRIZM Segment**



Q19. I will read through some energy-saving actions you may have heard about. Please let me know if these are actions you have taken in your home within the past 12 months.

Residential customers were asked if other members of the household also took the energy-saving actions they described. Eighty-three percent answered “yes” to this question, 3% answered “no,” and 13% said there were no other members in their household (see Figure 20).

**Figure 20. Actions Taken by Other Members of Household, n=337**

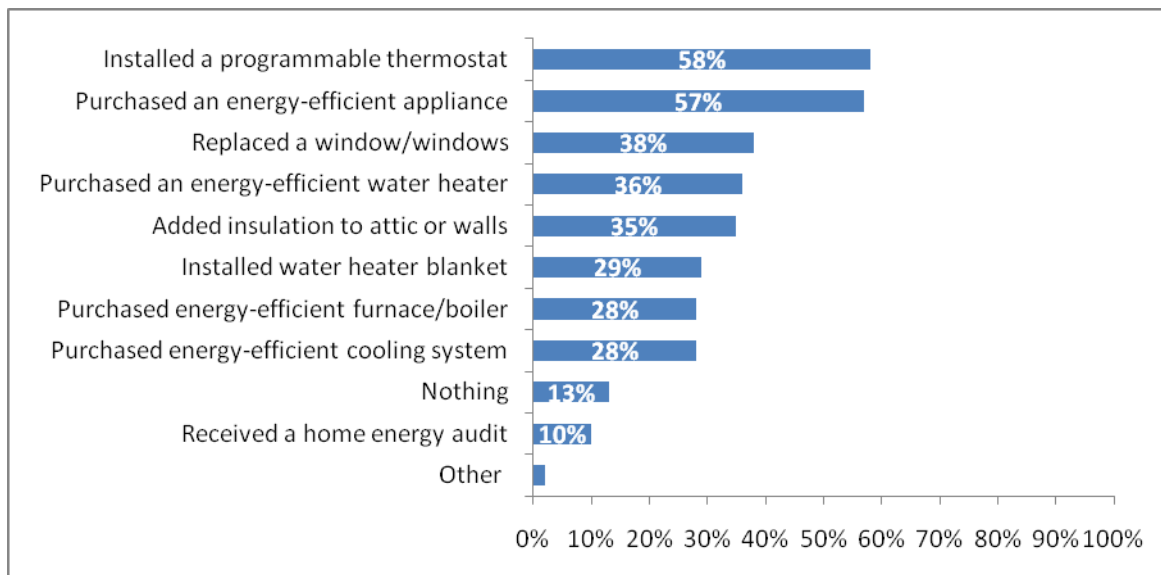


Q20. Are other members in your household also taking the action(s) you described?

Young Accumulators were more likely than Cautious Couples to report that other members of their household are also taking the energy-saving actions they described (90% versus 74%).

Residential customers were asked on an aided basis about purchases they made in order to save energy in their home. Installing a programmable thermostat was most frequently mentioned (58%), closely followed by purchasing an energy-efficient appliance (e.g., refrigerator, dishwasher, or clothes washer; 57%). The two next frequently mentioned actions were replacing windows (38%) and purchasing an energy-efficient water heater (36%). See Figure 21.

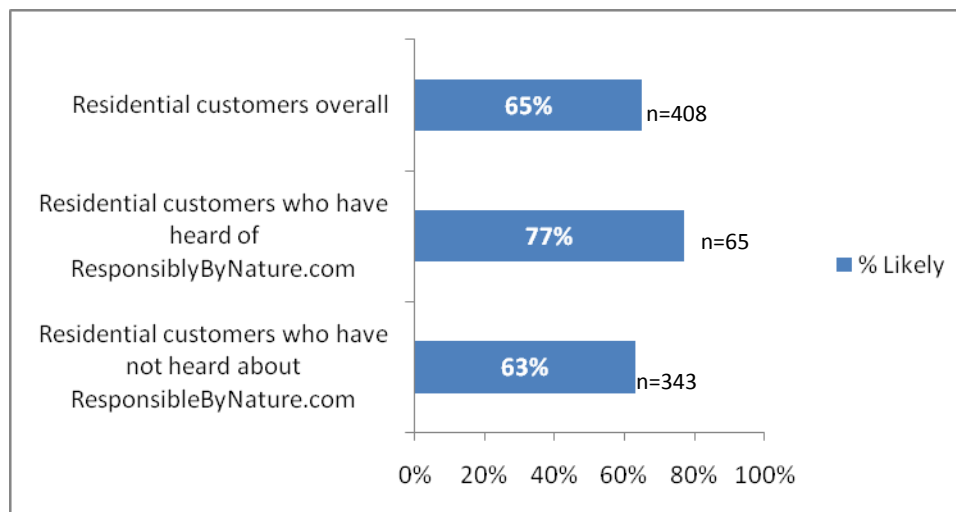
**Figure 21. Actions Taken to Make Home More Energy Efficient, n=422**



Q21. Some people save energy by making changes to the energy using appliances/equipment in their home. Which of the following have you done to make your home more energy efficient?

Residential customers who reported having heard about ResponsibleByNature.com were more likely to say that they will take additional energy-saving actions in the next year compared to those who have not heard about ResponsibleByNature.com (77% versus 63%). See Figure 22.

**Figure 22. Likely to Take Action by Awareness of ResponsibleByNature.com**



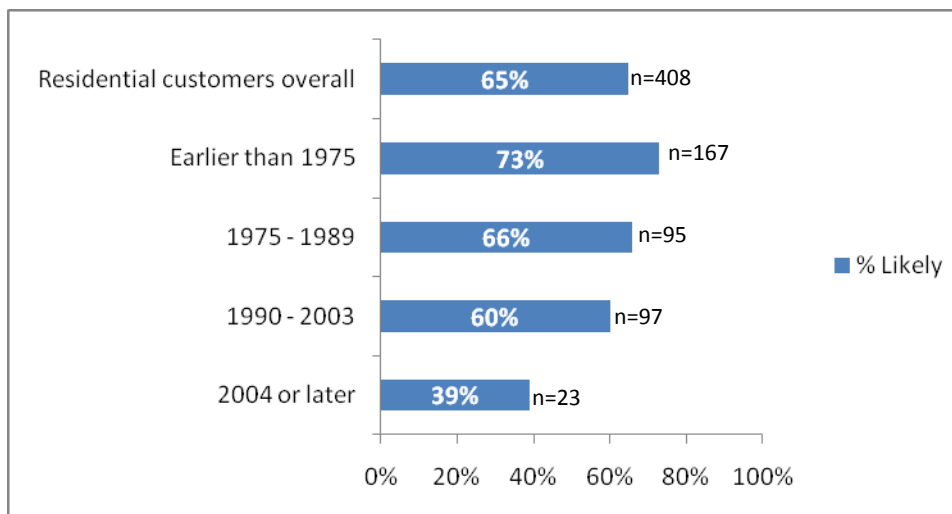
Q9. Have you heard about the "Responsible By Nature" Website from Xcel Energy?

Q22. How likely is it that you will take additional energy-savings actions in your household in the next year? (On a scale of 0-10, where 0 means you are not likely to take action and 10 means you are very likely to take action). Depicts responses of 6 – 10.



Residential customers with older homes were more likely to say they will take additional energy-savings actions in the next year compared to those with newer homes (see Figure 23).

**Figure 23. Likelihood to Take Action by Year Home was Built**

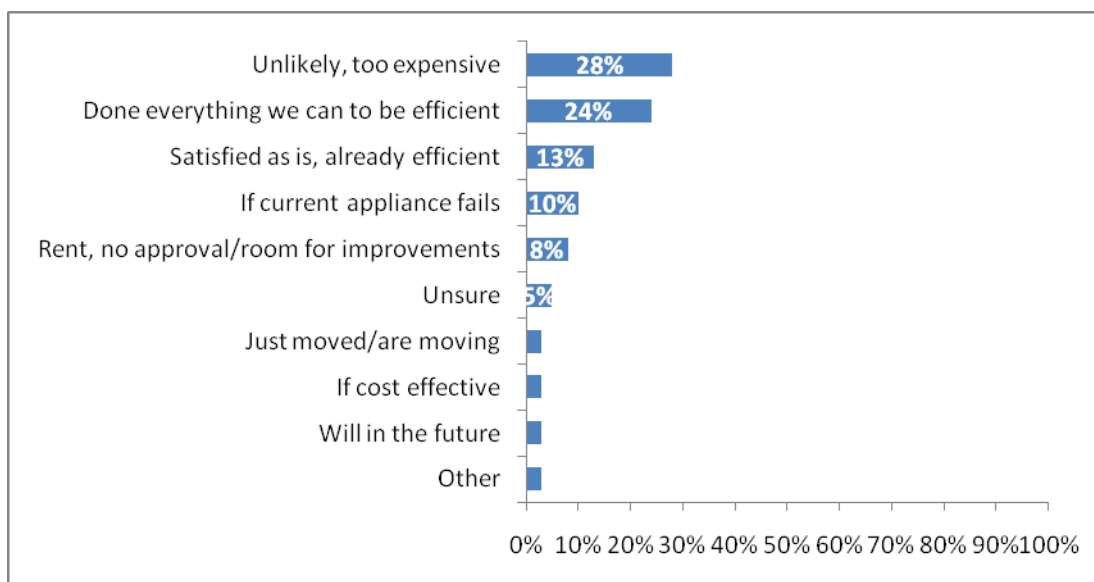


Q22. How likely is it that you will take additional energy-savings actions in your household in the next year? (On a scale of 0-10, where 0 means you are not likely to take action and 10 means you are very likely to take action). Depicts responses of 6 – 10.

Q46. When was your home built?

Twenty-two percent of residential customers said they were not likely to take energy-saving actions in the next year. The reasons why are displayed above in Figure 24. The most common reasons given for not making purchases included the initial cost (28%) and the perception that they have done everything they can to be efficient in their home (24%).

**Figure 24. Why Residential customers Are Not Likely to Take Action, n=53**



Q22. How likely is it that you will take additional energy-savings actions in your household in the next year? (On a scale of 0-10, where 0 means you are not likely to take action and 10 means you are very likely to take action).

Q23. If not likely (response options 0 – 5), why not?

The following are representative comments received from residential customers regarding why they are unlikely to take action:

Energy saving purchases are too expensive:

- *“Because of the cost to do certain things. I don't generally do things unless I need to.”*
- *“I'm retired and don't have the money.”*
- *“I think that a lot of those things take money, most of my actions will be to eliminate usage.”*

Have already done everything we can to save energy:

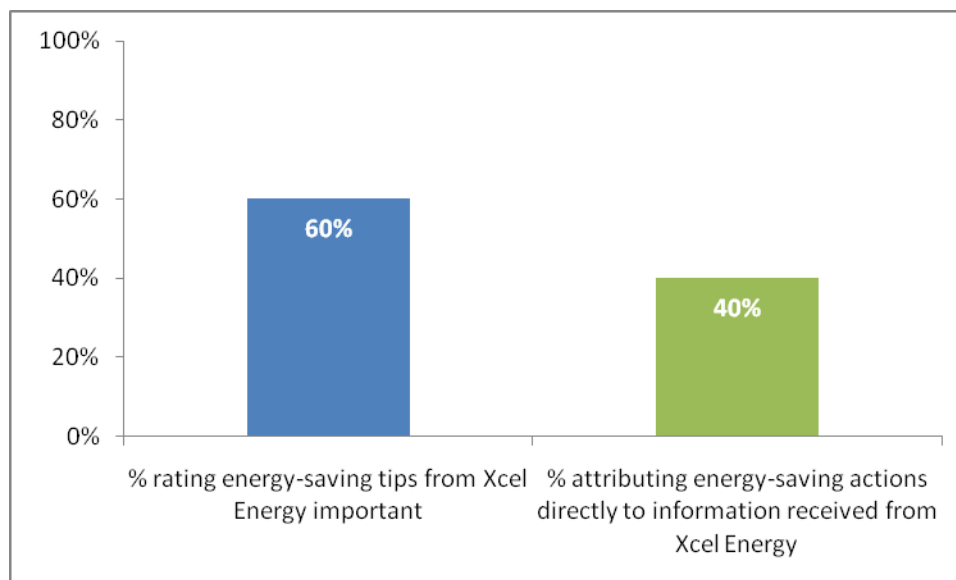
- *“We already are doing what we can do and utility bills are within reason.”*
- *“I have already done most everything I can do besides freezing to death in wintertime.”*
- *“I live in an apartment and I already take actions that are energy reducing, such as not using heat or AC.”*

Satisfied as is, already efficient:

- *“My house is very energy efficient as is, and I'm really good at being conservative with the amount of energy I use.”*
- *“I am already energy conscious.”*
- *“I'm happy with the appliances that I already have.”*

Sixty percent of residential customers mentioned that the energy-saving tips they heard or saw from Xcel Energy were important in their decision to take energy-saving actions (see Figure 25).

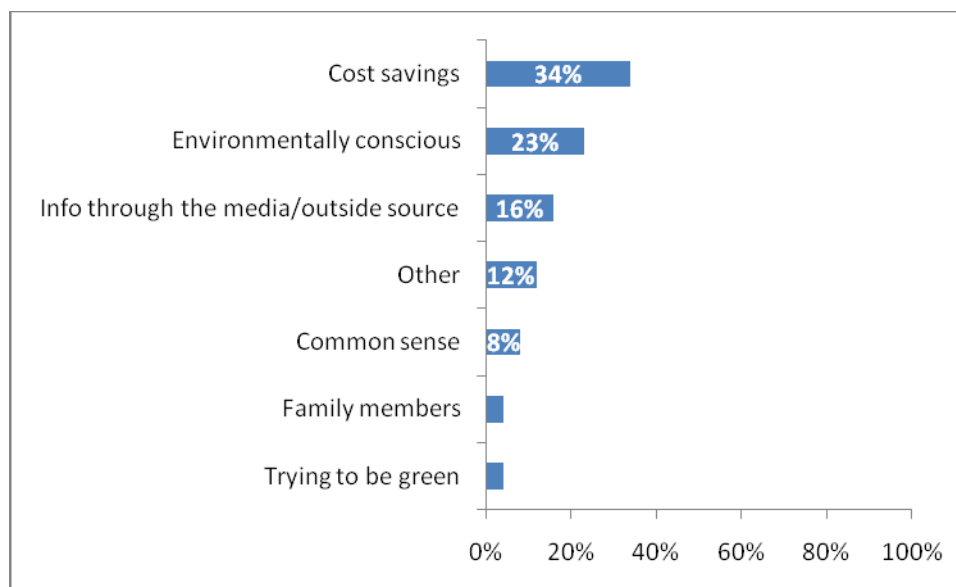
**Figure 25. Tips Influence on Decision to Take Action, n=277**



Q24. On a scale of 0-10, where 0 means not at all important and 10 means very important, how important were the energy-saving tips you heard or saw from Xcel Energy in your decision to take the energy-saving action(s) mentioned? Chart depicts responses of 6 – 10.

Residential customers were asked if there was anything else, other than the information they received from Xcel Energy that was important in their decision to take action. Sixty-nine percent said there were other influences. Of those, over one-third mentioned cost savings information and nearly one-fourth mentioned they were environmentally conscious (see Figure 26).

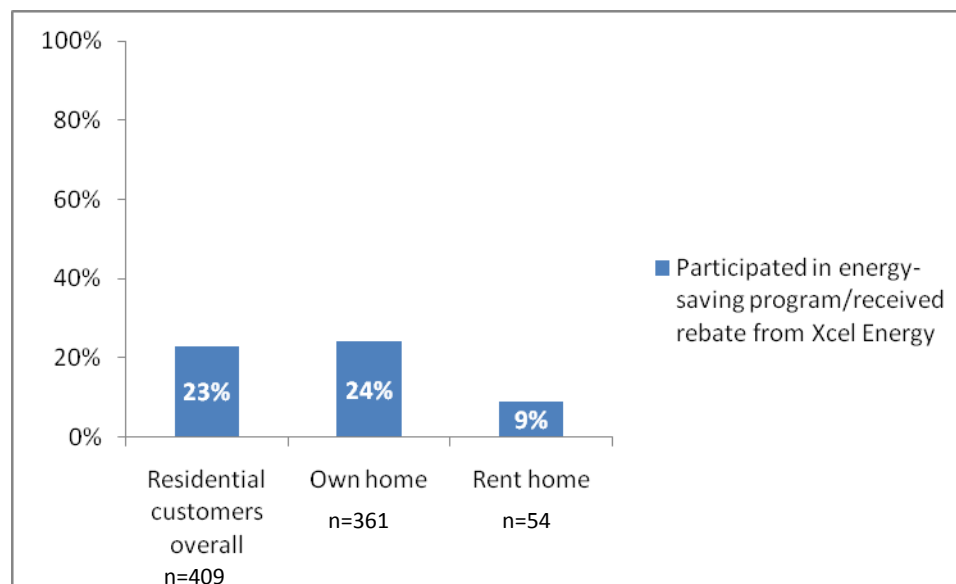
**Figure 26. Other Influences to Taking Action in Addition to Xcel Energy Information, n=254**



Q25. Was there anything else other than the information from Xcel Energy that was important in your decision to take action?

Twenty-three percent of residential customers reported participating in an energy-saving program or receiving a rebate from Xcel Energy. Customers who own their home were more likely to say they participated in a program or received a rebate from Xcel Energy than those who rent (24% versus 9%; see Figure 27).

**Figure 27. Participation in Energy-Saving Program or Rebate From Xcel Energy**



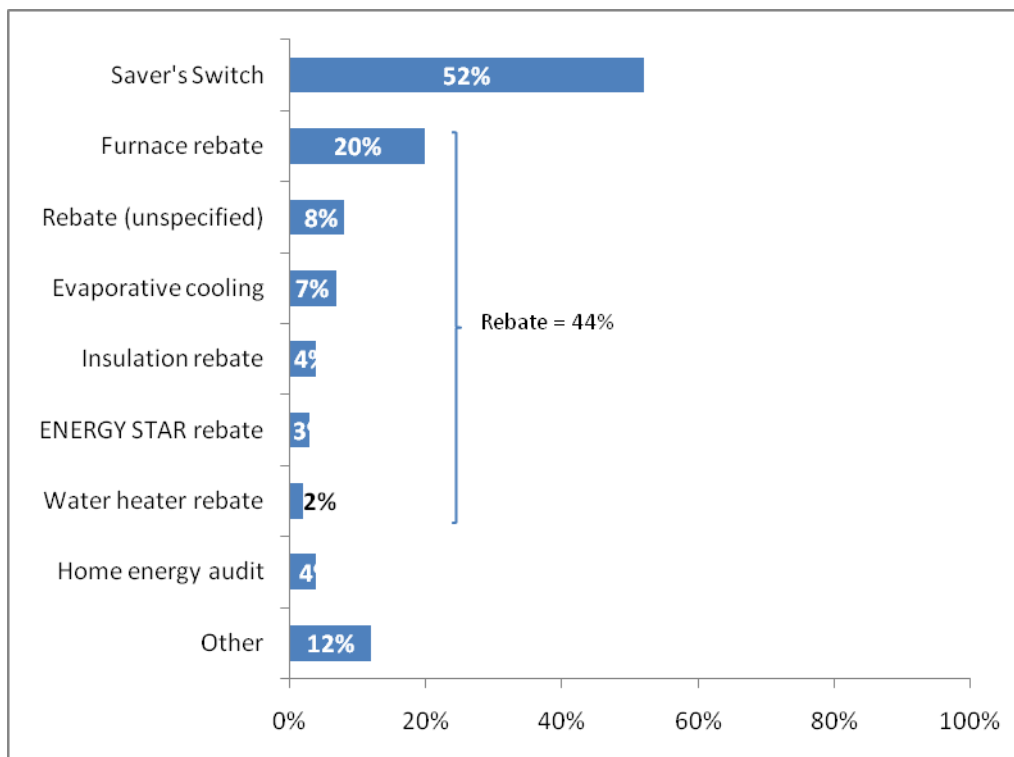
Q26. Have you participated in an energy-saving program or received a rebate from Xcel Energy?

Q44. Do you own this home or do you rent?

More Conservative Classics customers said they had participated in an energy-saving program or received a rebate from Xcel Energy than Mainstream Families (30% versus 13%).

The programs or rebates residential customers mentioned they participated in are displayed in Figure 28. Over half said they participated in the Saver's Switch program and 44% said they received a rebate. The rebate program mentioned most often was a furnace rebate (20%).

**Figure 28. Residential Participation in Energy Saving Program or Rebate, n=89**

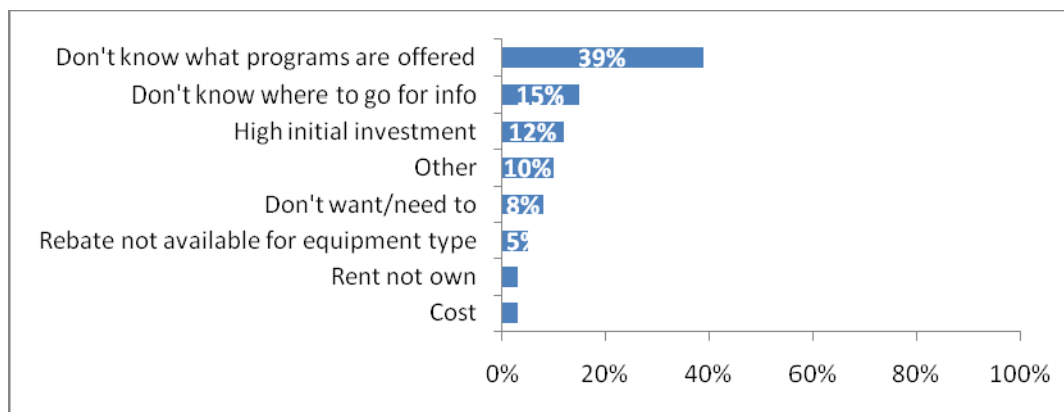


Q26. Have you participated in an energy-saving program or received a rebate from Xcel Energy?

Q26a. If yes: Which program/rebate?

Seventy-seven percent of residential customers said they did not participate in an energy-saving program or receive a rebate from Xcel Energy. The identified barriers that kept customers from participating are shown in Figure 29. Lack of awareness of programs offered (39%) and lack of understanding of where to find information about programs (15%) were mentioned most often.

**Figure 29. Reasons for Non-Participation in Energy-Saving Program or Rebate, n=344**



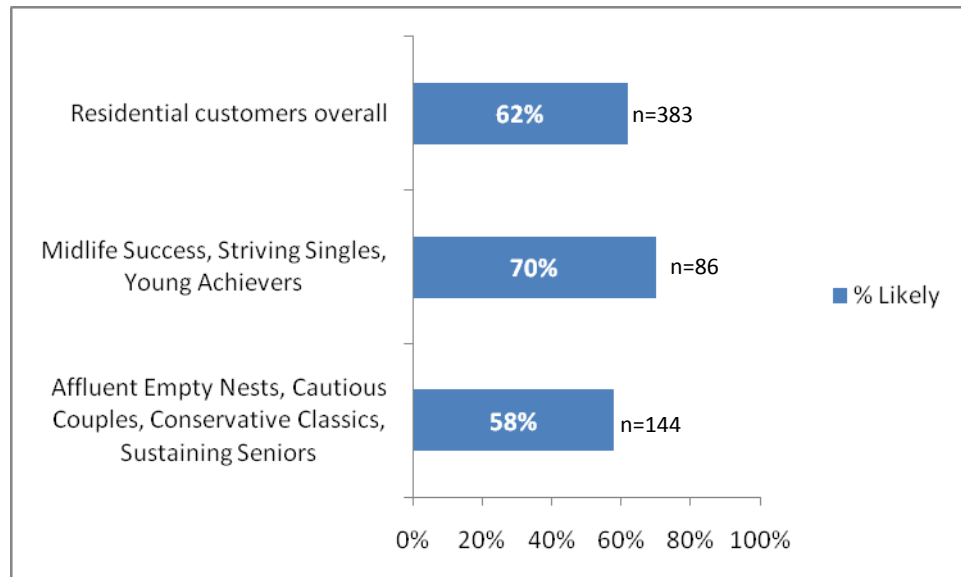
Q26. Have you participated in an energy-saving program or received a rebate from Xcel Energy?

Q26b. If no: What has kept you from participating in Xcel Energy savings programs?

Residential customers were asked about their likelihood to participate in energy-saving programs offered by Xcel Energy in the next one to two years. Sixty-two percent said they were likely to participate.

Residential customers from the Midlife Success, Striving Singles, and Young Achievers segments were more likely to participate in an energy-saving program in the next one to two years than the Affluent Empty Nests, Cautious Couples, Conservative Classics, and Sustaining Seniors segments (70% versus 58%; see Figure 30).

**Figure 30. Likelihood to Participate in Energy-Saving Program in Next 1 – 2 Years**

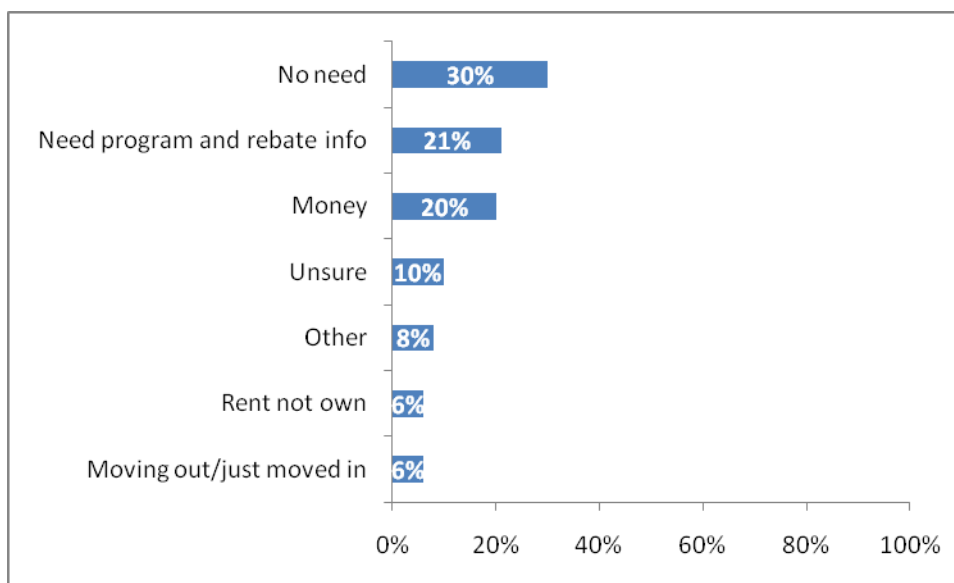


Q27. On a scale of 0-10, where 0 means you are very unlikely to participate and 10 means you are very likely to participate, how likely is it that you will participate in an energy-saving program offered by Xcel Energy in the next 1 to 2 years? Chart depicts responses of 6 – 10.



Figure 31 displays the reasons why residential customers reported they were not likely to participate in an energy-saving program with Xcel Energy in the next one to two years. Of those, the top three reasons were that there was no a need to take part in a program (30%), that they need more information on a program or rebate (21%), and cost (20%; see Figure 31).

**Figure 31. Why Not Likely to Participate in Energy-Saving Program in Next 1 – 2 Years, n=79**



Q28. On a scale of 0-10, where 0 means you are very unlikely to participate and 10 means you are very likely to participate, how likely is it that you will participate in an energy-saving program offered by Xcel Energy in the next 1 to 2 years? No: Why do you say that?

Below are representative comments from residential customers regarding why they were not likely to participate in an energy-saving program with Xcel Energy in the next one to two years:

No need:

- *“Because besides the energy audit that I had there hasn't been anything that's come along that's been applicable to my circumstances.”*
- *“Unless something breaks, it's okay now.”*
- *“We probably have what we need.”*

Need program and rebate information:

- *“I don't know what programs are available.”*
- *“If Xcel has a rebate for something that we need to replace, then we'll participate.”*
- *“I'd have to see what it was about.”*

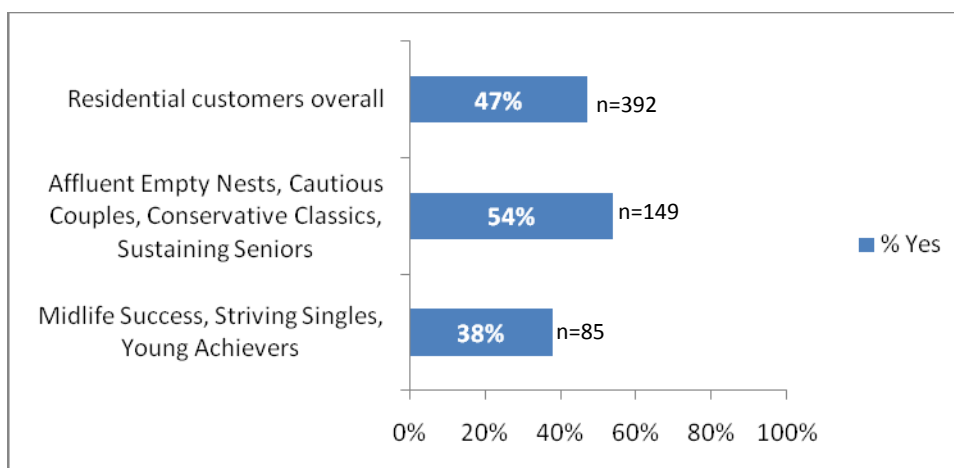
Money:

- *“Hopefully things will get better and I can afford insulation.”*

- “I already know what I have to do, and I don't have the money to buy those fancy appliances.”
- “The savings aren't that great and we're busy people.”

Residential customers were asked if they noticed a change in the comfort level of their home related to the energy-saving actions they took; 47% said “yes,” they noticed a change. Affluent Empty Nests, Cautious Couples, Conservative Classics, and Sustaining Seniors were more likely to have noticed a change in the comfort level of their home related to the energy-saving actions they took compared to Midlife Success, Striving Singles, and Young Achievers (54% versus 38%; see Figure 32).

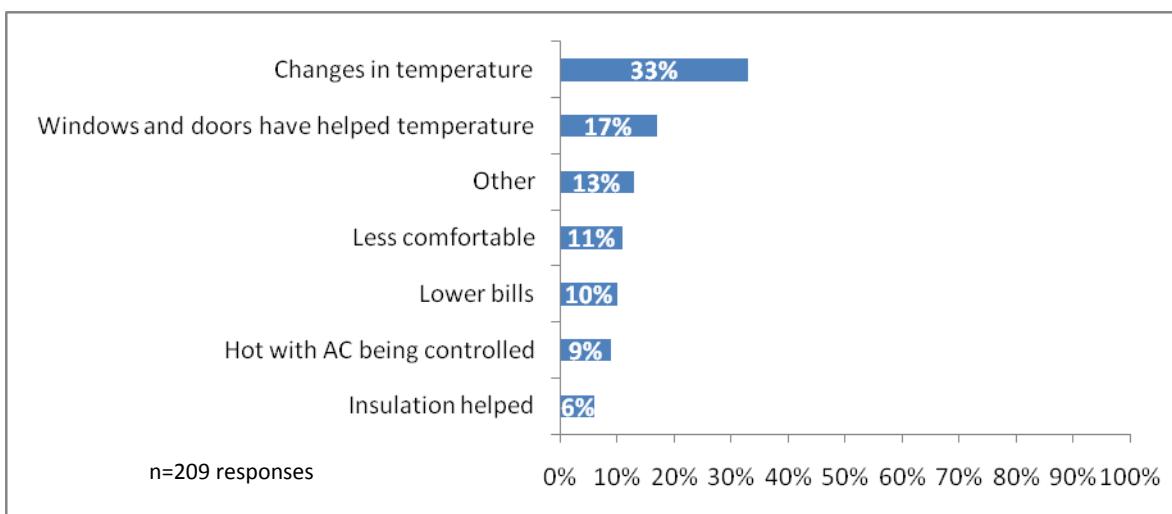
**Figure 32. Noticed a Change in Comfort of Home Since Taking Energy-Saving Actions**



Q29. Have you noticed any change in the comfort level in your home related to the energy-saving actions you have taken?

Changes in temperature was mentioned most often by residential customers as the change noticed after taking energy-saving actions in their homes (see Figure 33).

**Figure 33. Changes Noticed Since Taking Energy-Saving Actions**



Q29. Have you noticed any change in the comfort level in your home related to the energy-saving actions you have taken? If yes: What have you noticed?

Below are representative comments from residential customers regarding the changes they noticed in the comfort of their homes since taking energy-saving actions:

Changes in temperature:

- *“The house is well insulated so it's warmer in the winter and colder in the summer.”*
- *“I can make my house cooler. And I can make it warmer, because I have a pellet and wood stove. All EPA certified.”*
- *“Aluminum siding sealed a lot of air leaks. Drastic changes in temperature are not as noticeable.”*

Windows and doors have helped temperature:

- *“By closing the windows and curtains, it's cooler in the summer and warmer in the winter.”*
- *“Insulation in the windows keeps things warmer.”*
- *“The storm door and the window tinting made it cooler and more cost-effective for us.”*

Other:

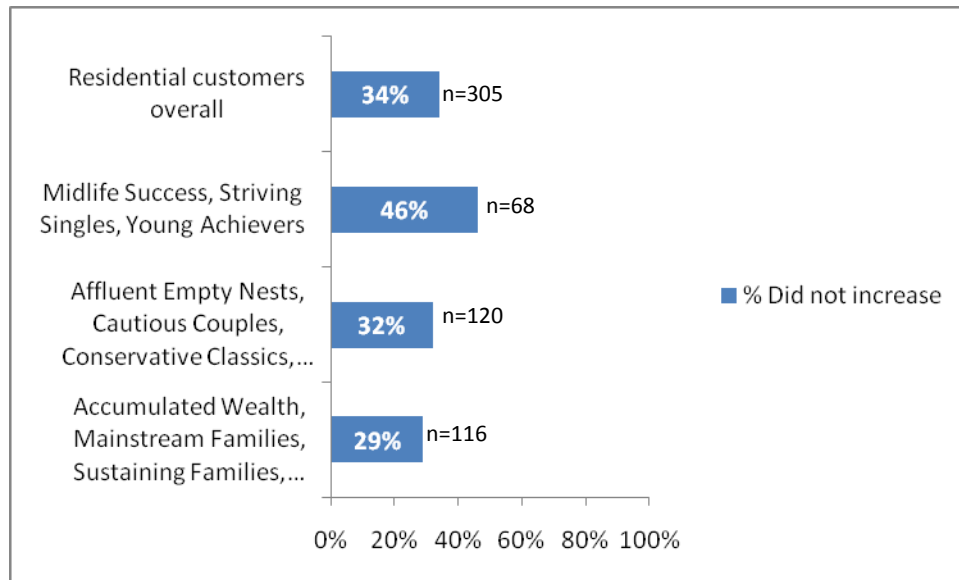
- *“Biggest comfort change is being assured that what I'm doing is good for environment.”*
- *“I notice that I am more aware of peak times and environmental impacts.”*
- *“I've learned how to keep the house cool without using central air.”*

Less comfortable:

- *“A little less comfortable especially because of the humid summer, the evaporative cooler is less effective.”*
- *“It's been really hot and humid without running the AC.”*
- *“Due to Saver's Switch it was way too hot, but we got out of it.”*

Over one-third of residential customers mentioned that the information they received from Xcel Energy did not increase their knowledge of energy-saving activities applicable to their home. Midlife Success, Striving Singles, and Young Achievers are more likely to say that the information did not increase their knowledge compared to the other segments (29% compared to 46% and 32%; see Figure 34).

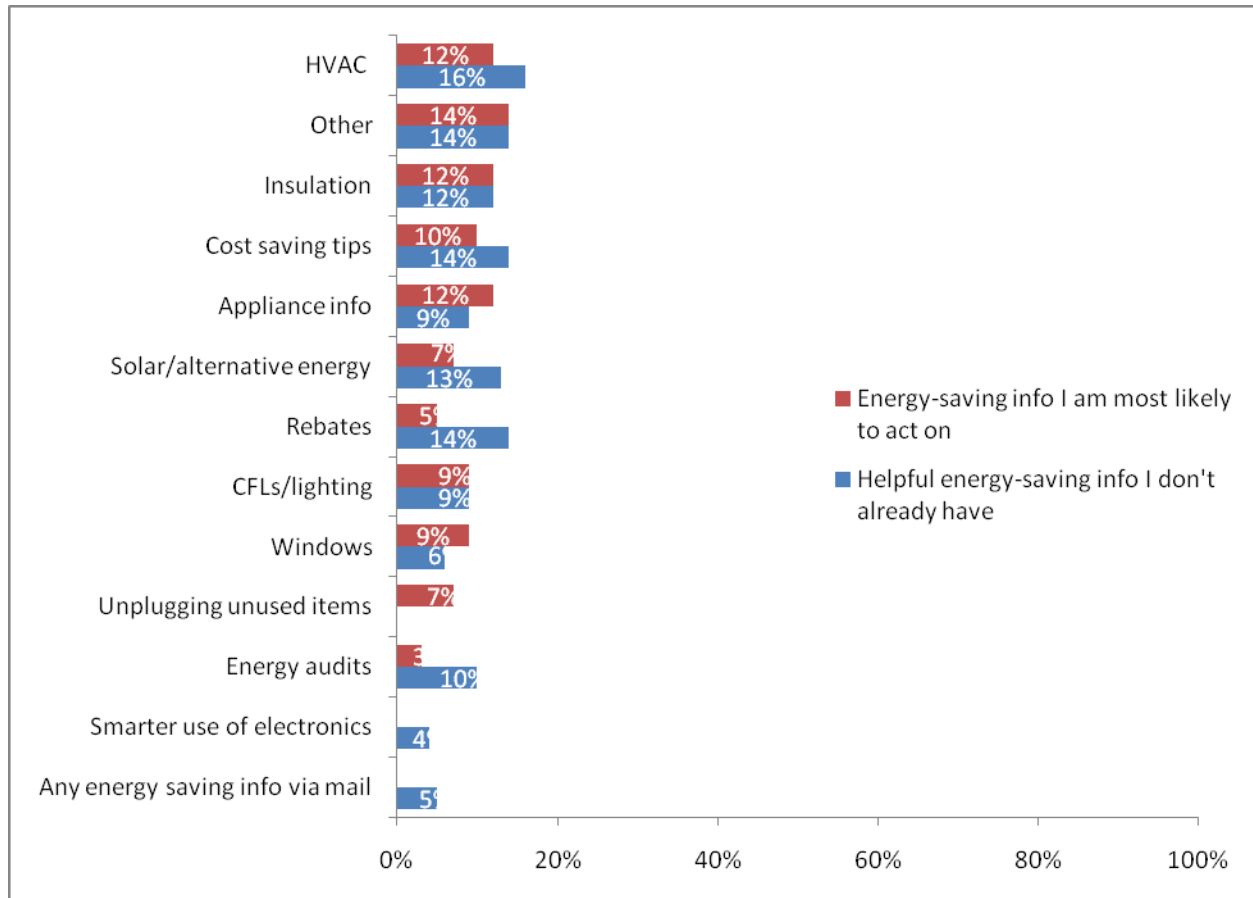
**Figure 34. Information From Xcel Energy Did Not Increase Knowledge**



Q30. On a scale of 0-10, where 0 means no increase and 10 means increased; to what extent did the information from Xcel Energy increase your knowledge of energy-saving activities applicable to your home? Chart depicts responses of 6 – 10.

Residential customers were asked on an unaided basis what energy-saving information they are most likely to act on and what energy-saving information they would find helpful that they do not already have. The responses are displayed in Figure 35. The energy-saving information customers reported they were most likely to act on included that related to appliances (12%), insulation (12%), and HVAC (12%). HVAC was also mentioned most often as information customers currently do not have and would find most helpful (16%).

**Figure 35. Energy Saving Information Most Likely to Act On and Would Find Helpful but Do Not Have**



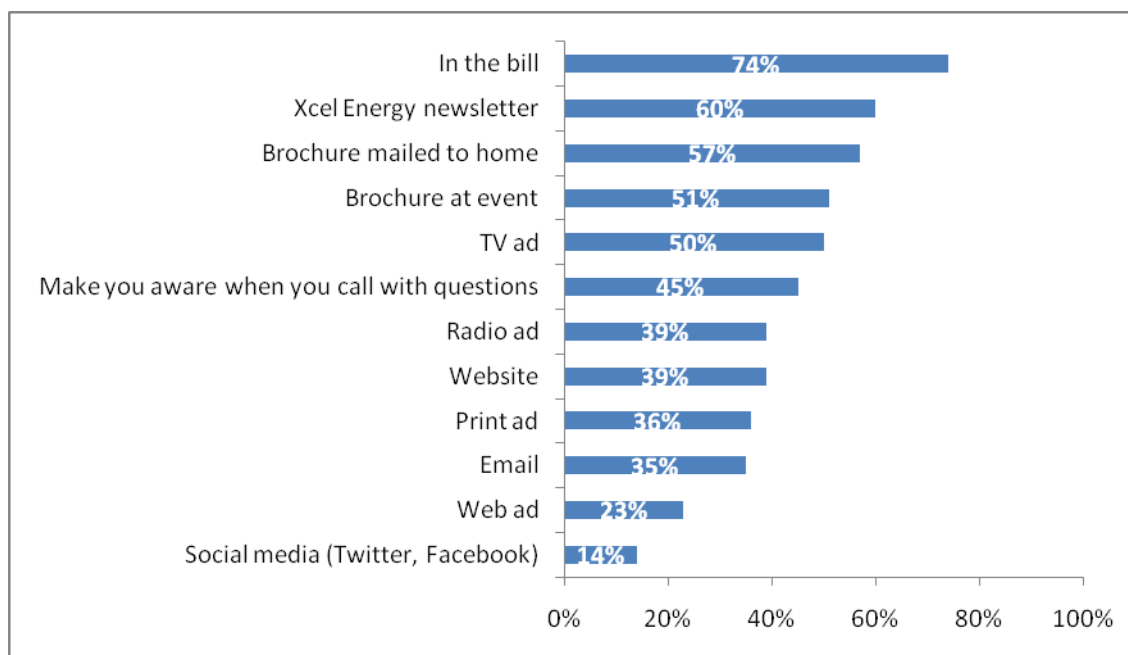
Q31. What energy-saving information are you most likely to act on? n=234 responses

Q32. What energy-saving information would you find helpful that you do not already have? n=124 responses

Residential customers were asked on an aided basis if specific methods were good ways to communicate with them regarding energy-saving opportunities. The methods chosen most often by customers is bill insert (74%) followed by the Xcel Energy newsletter (60%) and a brochure mailed to their home (57%; see Figure 36).

Residential customers were also asked to choose their most preferred method for receiving energy-saving information. In the bill was preferred most often (46%), followed by the Xcel Energy newsletter (14%) and E-mails (14%).

**Figure 36. Good Ways to Communicate Energy-Saving Information to Residential Customers, n=183**

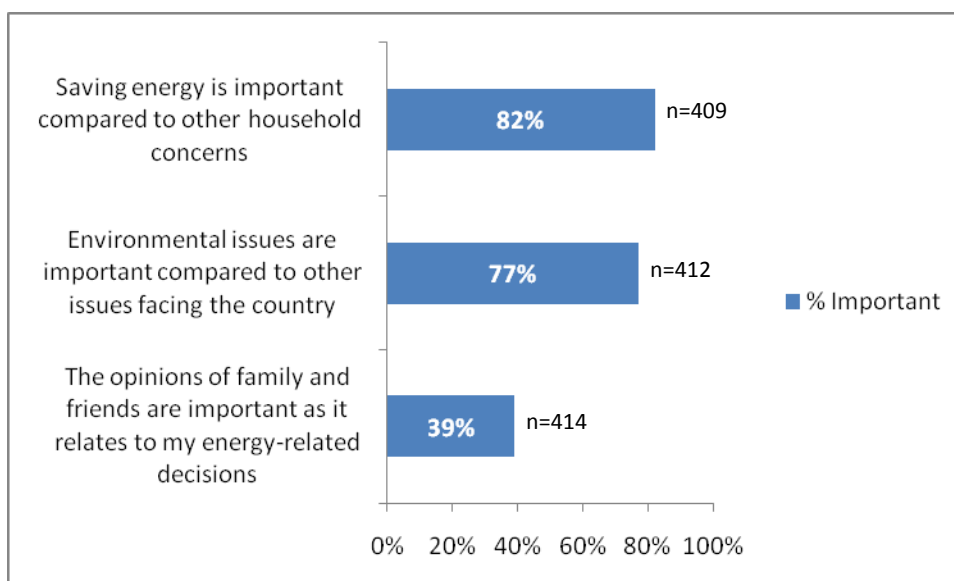


Q33. I am going to read a list of ways that Xcel Energy could provide you with energy-saving information. Please tell me if each of these is a good way for Xcel Energy to communicate with you about energy-saving opportunities.

## Customer Attitudes

Most customers (82%) acknowledged that saving energy is important compared to other household concerns. Environmental issues were also considered important by seventy-seven percent of customers (see Figure 37). This endorsement should be taken in context, as other social issues were not addressed in this survey. Xcel Energy's second quarter Omnibus Survey included several other community issues of concern, among which the economy was the primary issue. Environmental issues were rated lower than economy, health care, and education in that context.

**Figure 37. Residential Customer Attitudes: Importance**



Q35. On a scale of 0-10, where 0 means very unimportant and 10 means very important, how important is saving energy compared to other household concerns?

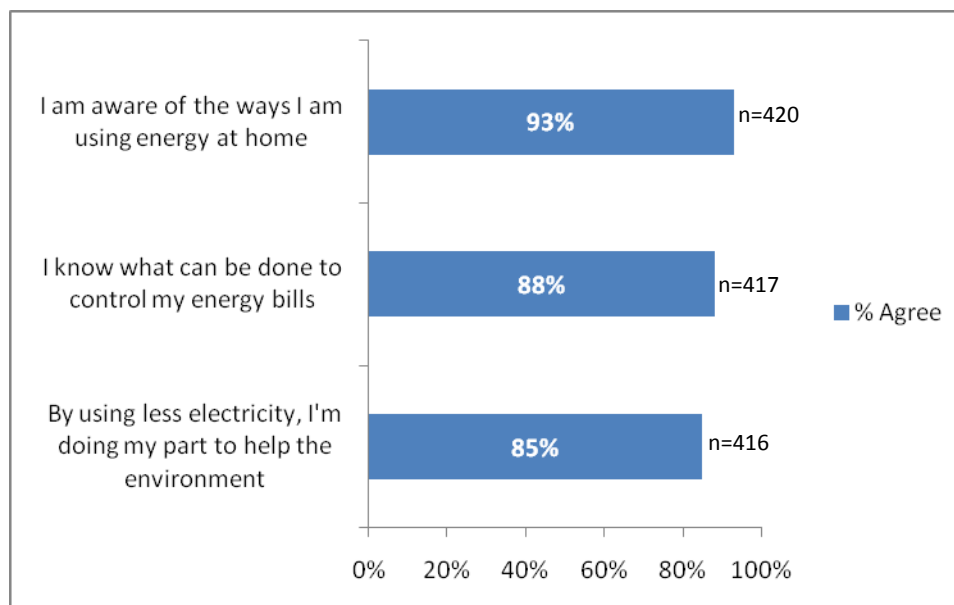
Q36. On the same 0 to 10 scale, how important are environmental issues to you compared to other issues facing the country?

Q37. And using the same 0 to 10 scale again, how important are the opinions of friends and family in your energy-related decisions?

Chart depicts responses 6 – 10.

Customers indicated very high levels of agreement for awareness of energy use in their home (93%), understanding ways to control energy bills (88%), and doing their part for the environment by using less electricity (85%; see Figure 38).

**Figure 38. Residential Customer Attitudes: Agreement**



Q38. On a scale of 0-10, where 0 means you strongly disagree and 10 means you completely agree, please tell me to what extent you agree or disagree with the following statements:

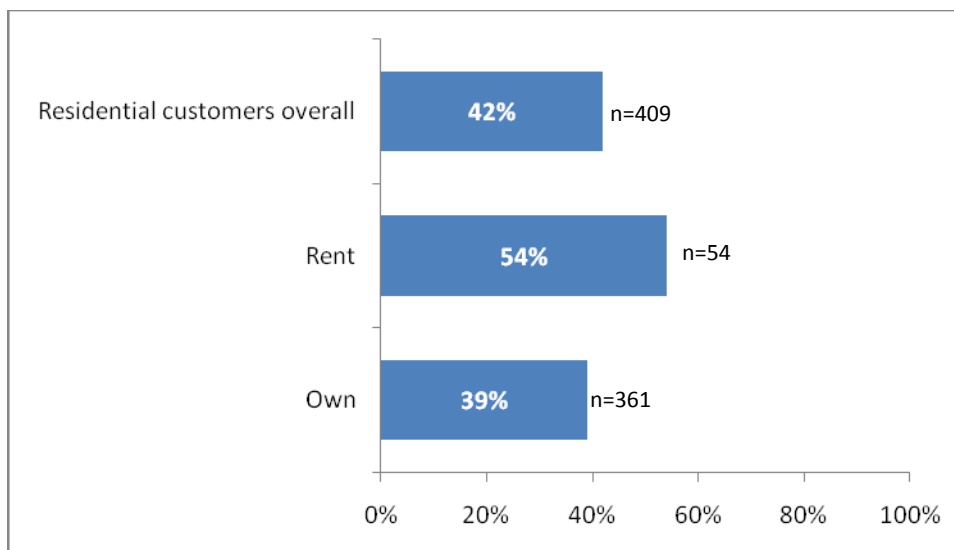
- a. I am aware of the ways I am using energy in my home.
- b. I know what I can do to control my energy bills.
- c. By using less electricity, I am doing my part to help the environment.



## Barriers

Residential customers were asked to rate how challenging it was to incorporate energy-saving actions into their way of life. Overall, 42% said that it was challenging. Customers who rent their homes found it more challenging than those who own (54% versus 39%; see Figure 39).

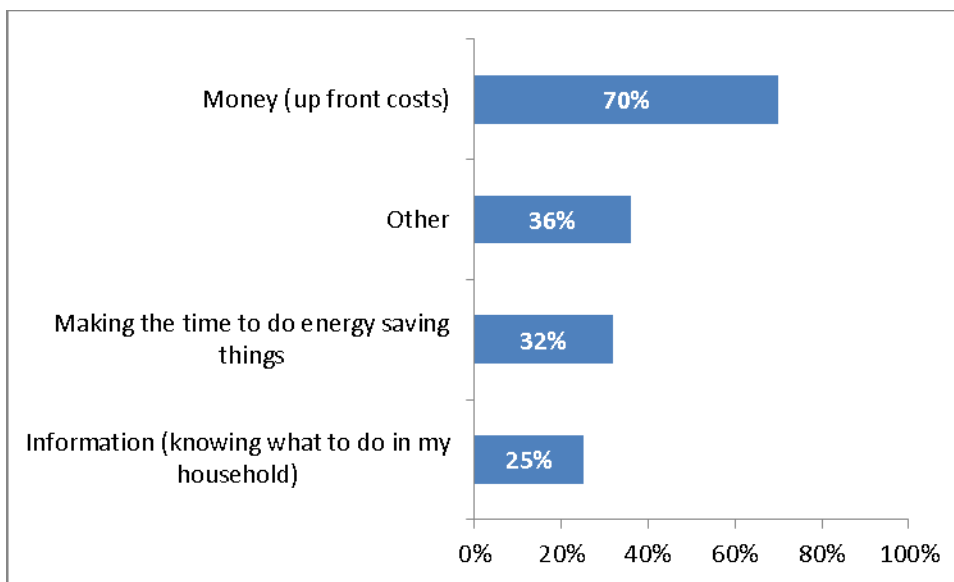
**Figure 39. Incorporating Energy Saving Actions is Challenging**



Q39. Making changes that save energy can sometimes be challenging. On a scale of 0-10, where 0 means very challenging and 10 means not at all challenging, how challenging is it to incorporate energy-saving actions into your way of life? Chart depicts responses of 6 – 10.

Residential customers were asked on an unaided basis to describe the top three things that make saving energy challenging in their household. The response mentioned most often was up front costs (70%; see Figure 40).

**Figure 40. Challenges to Energy Saving, n=155**

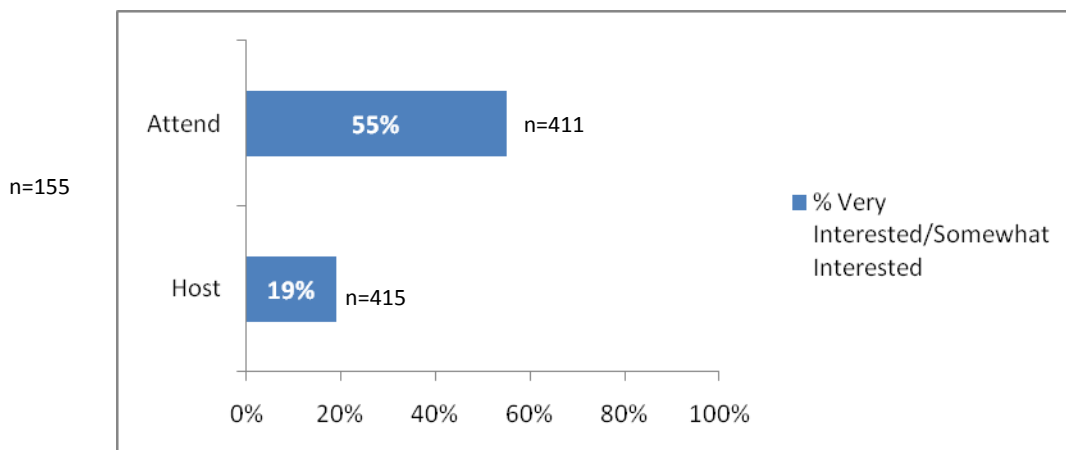


Q40. Please describe the top three things that make saving energy challenging in your household.

## House Parties

Residential customers were asked about their interest in attending or hosting an energy-saving themed house party. Fifty-five percent said they were somewhat or very interested in attending and 19% percent said they were somewhat or very interested in hosting a house party (see Figure 41).

**Figure 41. Residential Customer Interest in Attending or Hosting House Parties**

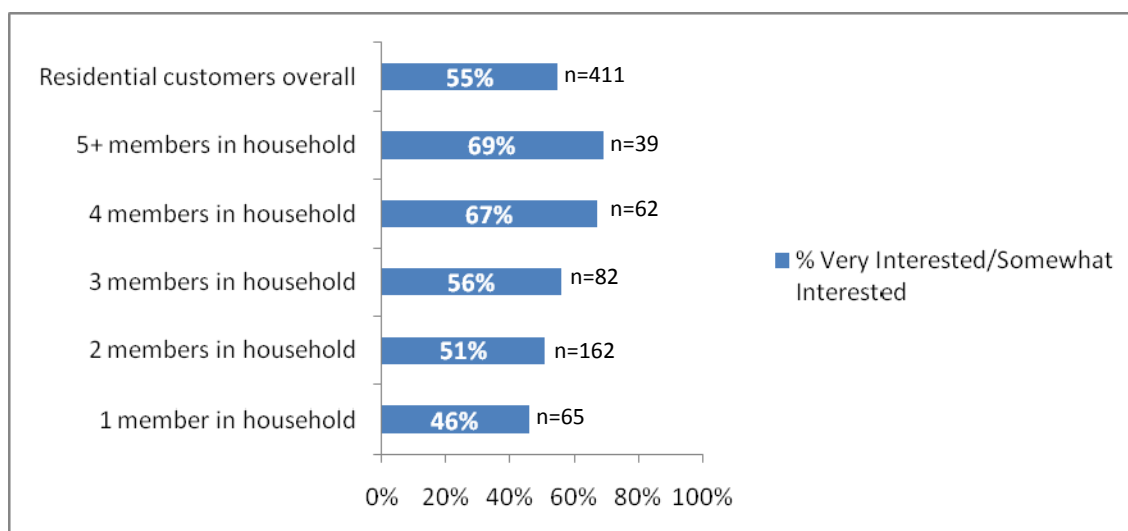


Q41. How interested would you be in **attending** a house party such as this if it were hosted by a friend or neighbor? Very interested, somewhat interested, not interested.

Q42. How interested would you be in **hosting** a house party such as this should Xcel Energy offer the program? Very interested, somewhat interested, not interested.

Households with fewer family members reported less interested in attending house parties. Results are similar for hosting parties. See Figure 42 for details.

**Figure 42. Interest in Attending House Parties by Number of Members in Household**

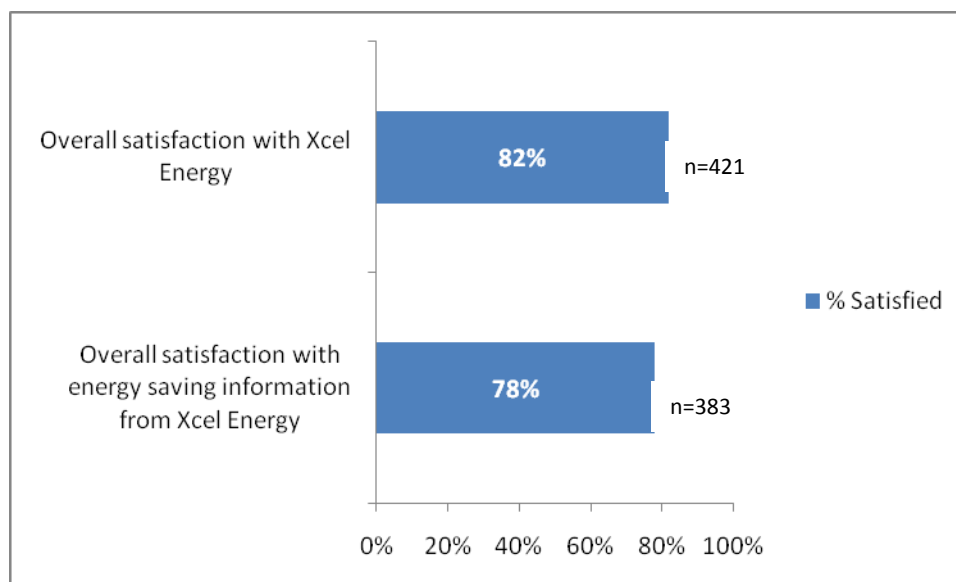


Q41. How interested would you be in **attending** a house party such as this if it were hosted by a friend or neighbor? Very interested, somewhat interested, not interested.

## Overall Satisfaction with Xcel Energy

Overall satisfaction with Xcel Energy is moderate, with 82% of residential customers surveyed reporting they are satisfied. Three-quarters of residential customers rate the energy saving information they receive from Xcel Energy favorably, with 78% reporting they are satisfied.

**Figure 43. Residential Customer Satisfaction Levels**



Q2. On a scale of 0-10, where 0 means you are not at all satisfied and 10 means you are completely satisfied, how would you rate your satisfaction with Xcel Energy? Chart depicts responses of 6 – 10.

Q3. On the same 0-10 scale, how satisfied are you overall with the energy saving information provided by Xcel Energy? Chart depicts responses of 6 – 10.

This is consistent with and somewhat more positive than the results of the most recent Xcel Energy Omnibus Survey<sup>4</sup>, where 73% of customers from the second quarter 2010 Omnibus survey reported they were satisfied with Xcel Energy overall.

Only 11% of residential participants said they were dissatisfied with the energy saving information they receive from Xcel Energy. Of those who were dissatisfied, the most common reasons for dissatisfaction are as follows:

- *“The energy-saving information was not useful or did not pertain to me”*
- *“I did not know they sent me energy-saving information”*
- *“The information does not save me money”*

<sup>4</sup> The Omnibus Survey is a quarterly administered, random sample survey of over 19,000 Xcel Energy customers.

## **Participant Profile**

Customers to this survey were typically homeowners (87%) living in a single family home (84%) that was in the 1,000 to 2,000 finished square feet range (47%) and was built prior to 1975 (44%). Customers were also more likely female (58%) in the 45-64 age category (51%) living with two people in the household (40%) and had an annual household income in the \$50,000 to \$75,000 range (29%). Table 11 outlines demographic and household characteristics for all customers.

Customers to the survey were proportionally distributed across PRIZM categories as was found in the sample. Four life stage segments made up 57% of all customers: Young Accumulators (15%), Midlife Success (14%), Mainstream Families (14%), and Conservative Classics (14%). Young Achievers were one of the more common segments (14%) in the PSCo service territory among all Xcel Energy customers, but accounted for only 5% of survey customers.

Initial CBC program design documents indicated that the primary target audiences were Accumulated Wealth, Conservative Classics, Affluent Empty Nesters, and Young Accumulators. The difference in the profile of customers would indicate that targets could be adjusted to include Midlife Success and Mainstream Families as a primary audience for program activities.

**Table 11. Household Characteristics**

Household Characteristics	%
Type of home	
Single family detached house	84%
Single family attached house	9%
Multifamily building with 3 or more units	7%
Ownership	
Own	87%
Rent	13%
Gender	
Female	58%
Male	42%
Age	
18 – 24	2%
25 – 34	14%
35 – 44	15%
45 – 54	23%
55 – 64	28%
65 and older	18%
Finished square footage of home	
<580 – 1,000 s.f.	10%
1,008 – 2,000 s.f.	47%
2,001 – 3,000 s.f.	30%
3,001 – 6,000+ s.f.	13%
Year home built	
Earlier than 1975	44%
1976 – 1989	25%
1990 – 2003	25%
2004 or later	6%
Number of people living in household	
1	16%
2	40%
3	20%
4	15%
5	5%
6 - 9	3%
Household income	
Less than \$25,000	10%
\$25,000 - \$49,999	22%
\$50,000 - \$74,999	29%
\$75,000 - \$99,999	16%
\$100,000 - \$149,999	14%
\$150,000 or more	8%

## 6. Business Participant Surveys

The business customers surveyed were identified by Xcel Energy as having signed up for a workshop or for the Energy Solutions newsletter. This respondent group is more actively engaged with conservation ideas and behaviors than those that have not actively sought out this type of information.

Among the business customers, there was high awareness reported of Xcel Energy programs (61%) and energy-saving tips (42%). However, awareness of the likely sources of this information was lower, with over one-third (36%) aware of the Energy Solutions newsletter, 22% aware of the Responsible By Nature Website, and only 9% that attended or hosted a workshop. Bill inserts or other direct mailings were most frequently cited as the source for energy-saving tips (57%), and bill inserts (39%) and email (37%) were reported as the preferred communication means.

**Lighting and/or space heating and cooling were the most common energy-efficient programs and tips business customers recalled, acted on, or participated in.** Of all the energy-efficient activities, business customers were most aware of lighting and HVAC tips and programs, and were most likely to have taken action related to these uses of energy. Among those who had taken action, 28% attributed the action to information provided by Xcel Energy, with half (49%) considering the information from Xcel Energy to be of value. The other primary influences on taking action were cost and the desire to conserve energy and protect the environment. Saving money and controlling costs were offered as the most important reasons to participate in energy-saving actions. Among businesses that took action, one-third reported a decrease in their monthly bill as a result. One-third (33%) of surveyed business customers indicated they had participated in or received a rebate from an energy-saving program offered by Xcel Energy since January 2009, with two-thirds participating in a home lighting program.

**Over two-thirds (69%) of businesses indicated they made substantial (non-cosmetic) equipment changes to save energy;** again, lighting and HVAC were the most frequently mentioned equipment upgrades. The remaining third (31%) reported they had never had a major retrofit remodel of their building.

Most business customers (77%) reported being knowledgeable about how energy is used in their facilities and acknowledged that energy is a cost of doing business (82%). Many (65%) also reported understanding that it is possible to control energy costs through behavior change. Two-thirds of customers reported that saving energy was important compared to other company concerns. Sixty percent said that making changes to save energy is challenging, and primary barriers are initial costs for equipment (59%), that change can be disruptive to the business (19%), and can be hard on the workers (24%) and leaders (15%).

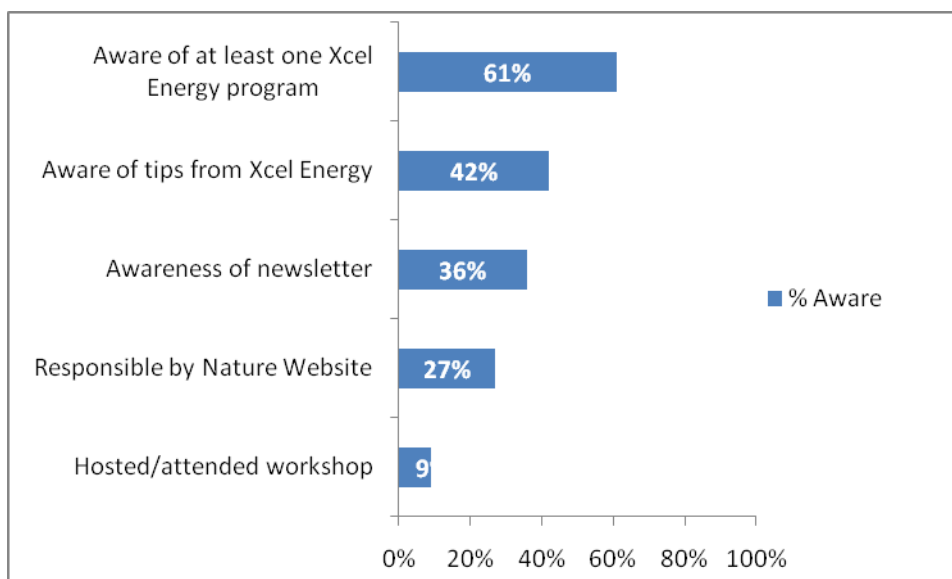
Business customers reported high satisfaction scores with Xcel Energy, with 78% giving a rating of 6 – 10 on a 0-10 scale for satisfaction, where 0 was not at all satisfied and 10 was completely satisfied. In addition, 71% reported being satisfied (6-10 rating) with energy-saving information for businesses provided by Xcel Energy.

## Detail Findings

### Awareness Summary

Among surveyed business customers, there was a high degree of awareness reported of Xcel Energy programs, with 61% able to name at least one program. Four in ten (42%) were also able to name a tip on saving energy they had seen or heard from Xcel Energy. Awareness of the sources of information is lower than general awareness, with 36% mentioning the newsletter, 27% noting the Website, and 9% identifying a workshop. Those who recalled receiving the newsletter were more likely to have seen energy-saving tips (86% v. 55%), as were those who attended a workshop (90% v. 69%). See Figure 44.

**Figure 44. Business Customer Summary of Awareness, n=245**



Q8. Have you seen or heard any energy-saving tips from Xcel Energy within the past 12 months? (based to those who could name a tip).

Q11. Have you or representatives from your company hosted or attended an energy-efficiency workshop sponsored by Xcel Energy since January 2009?

Q14. Have you or representatives from your company received an Energy Solutions newsletter from Xcel Energy?

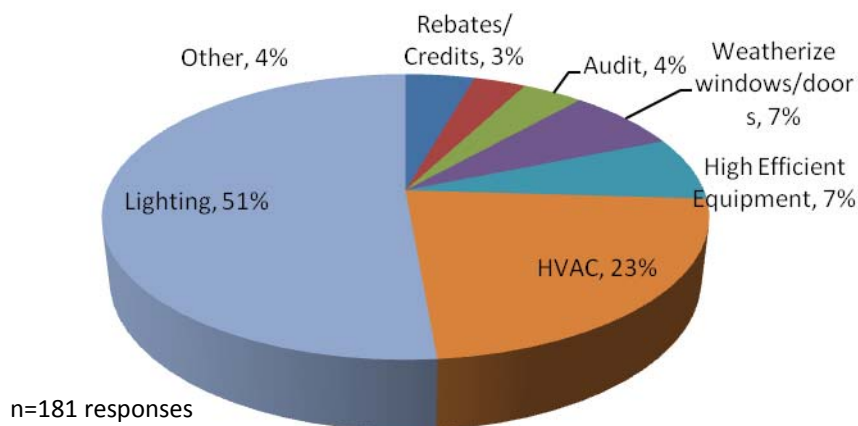
Q17. What Xcel Energy savings programs have you heard of?

Q18. Have you heard about the Responsible By Nature Website from Xcel Energy?

## Awareness of Energy Saving Tips

While 67% of business customers said they were aware of energy-saving tips from Xcel Energy, only 42% were actually able to name a tip they had seen or heard, and most of these customers remembered two tips on average. The most frequently mentioned tips were related to lighting (51%) and space heating and cooling (23%). See Figure 45.

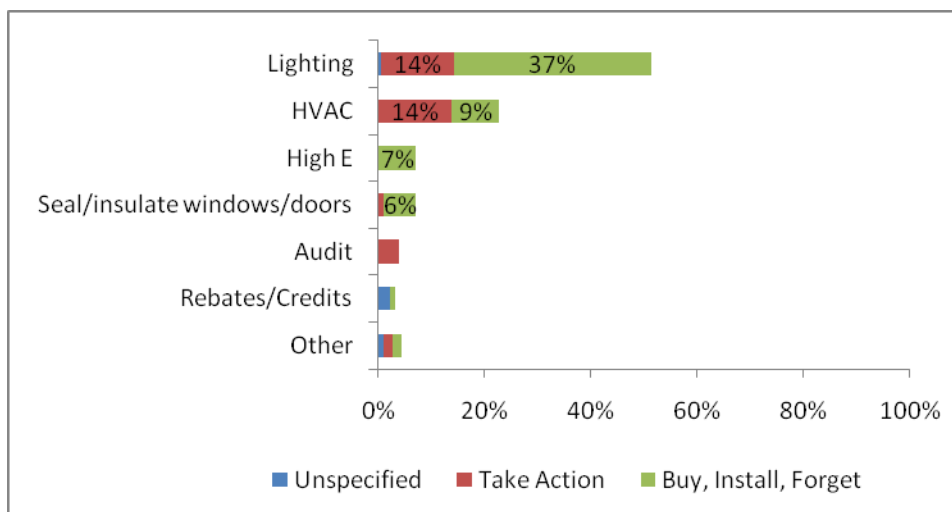
**Figure 45. Energy Saving Tips Seen or Heard**



Q9. What tips did you see or hear? (based to responses).

The tips shown in Figure 46 are categorized as behavioral or long term. For lighting, turning off lights is classified as behavioral (actions that must be repeated over and over again), while installing CFLs and motion sensors have a long-term effect. For HVAC, manually turning the thermostat up or down is behavioral, while purchasing an energy-efficient HVAC system or programming the thermostat has a long-term effect. Business customers named a higher percentage of tips that have a long-term effect than those that are associated with behavioral changes.

**Figure 46. Tips Categorized as Behavioral versus Long-Term Effect, n=181 responses**

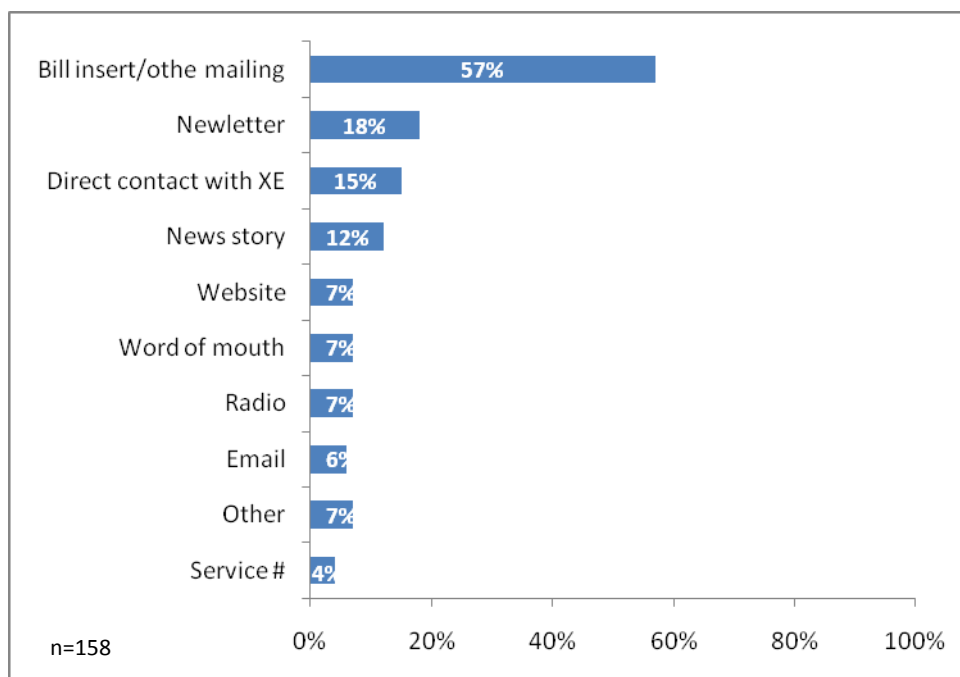




Q9. What tips did you see or hear? (based to responses)

The most frequently named source for tips was from information provided with the bill or a mailing (57%), followed by the newsletter (18%). Contact with Xcel Energy (15%) includes contact via the Account Manager (14 mentions), at events or workshops (six mentions), and calling in to Xcel Energy (two mentions). See Figure 47.

**Figure 47. Source of Awareness, n-158**

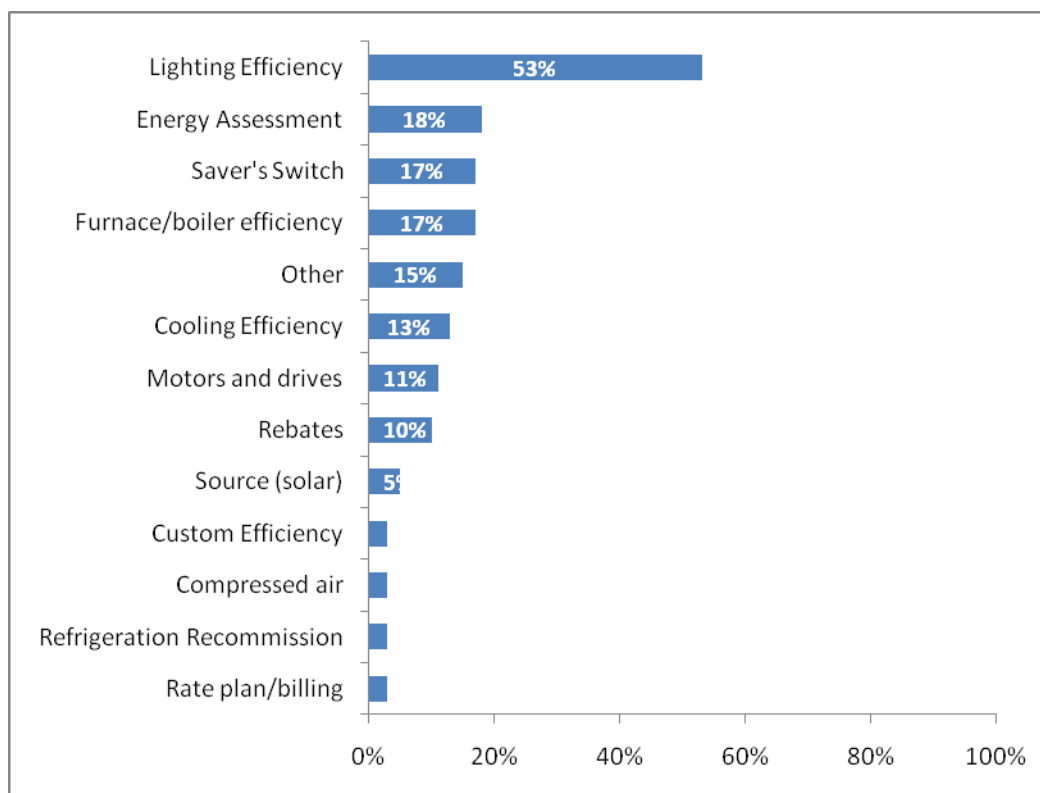


Q10. How did you hear (or read) about the energy-saving tip(s)?

## Awareness of Energy Saving Programs

When asked on an unaided basis, 61% of business customers were able to name a program offered by Xcel Energy. The Lighting Efficiency program received the most mentions (53%), followed by HVAC programs, with 17% naming Furnace/Boiler Efficiency and 13% naming Cooling Efficiency. Other significant mentions included Energy Assessment (18%) and Saver's Switch (17%). See Figure 48.

**Figure 48. Awareness of Energy Saving Programs, n=150**



Q17. What Xcel Energy Savings programs have you heard of?

## Awareness of Workshop

A relatively small percentage (9%, or 21 customers) of the surveyed business customers reported having hosted or attended a workshop. Two-thirds of the workshops were held in 2010, and one-third in 2009. Three-quarters (79%) of those who rated the workshop gave it a 6 – 10 rating on a 0 – 10 scale, where 0 meant not at all valuable and 10 meant very valuable, indicating that most were satisfied with the workshops. The small number of people who rated the workshop a 5 or lower were asked how the workshops could be improved. There were only a few suggestions for improving the workshops; these included:

- “Provide information that applies to my business,”
- “Better explanation of how to get the equipment rebates,”
- “Be more direct in terms of costs and savings,” and

- *“Gear it more to small businesses.”*

### **Awareness of Newsletter**

Over one third (36%) of surveyed business customers were aware of the Energy Solutions newsletter. 54% gave it a 6 – 10 rating on a 0 – 10 scale, where 0 meant not at all valuable and 10 meant very valuable. Those who gave the newsletter a low rating (5 or below) were asked how the newsletter could be improved.

Suggestions for improvement included:

- *“Having tips for condominiums such as Saver’s Switch for the air conditioning,”*
- *“Fully explaining things so you don’t have to go to the Website”* (this respondent found the Website to be confusing),
- *“More technical information,”*
- *“E-mail the newsletter instead of mailing it,”*
- *“Tailor it to small businesses”* (two mentions),
- *“Send it less frequently,”* and
- *“Give actual savings that can be realized.”*

Businesses aware of the newsletter were more likely to take specific actions, such as install CFLs (33% v. 23%), turn off lights (98% v. 90%), or set a programmable thermostat (78% v. 57%). They were also more likely to attribute the information that caused them to take action to Xcel Energy (38% v. 22%).

Business customers aware of the newsletter were more likely to have taken one or more of the following actions:

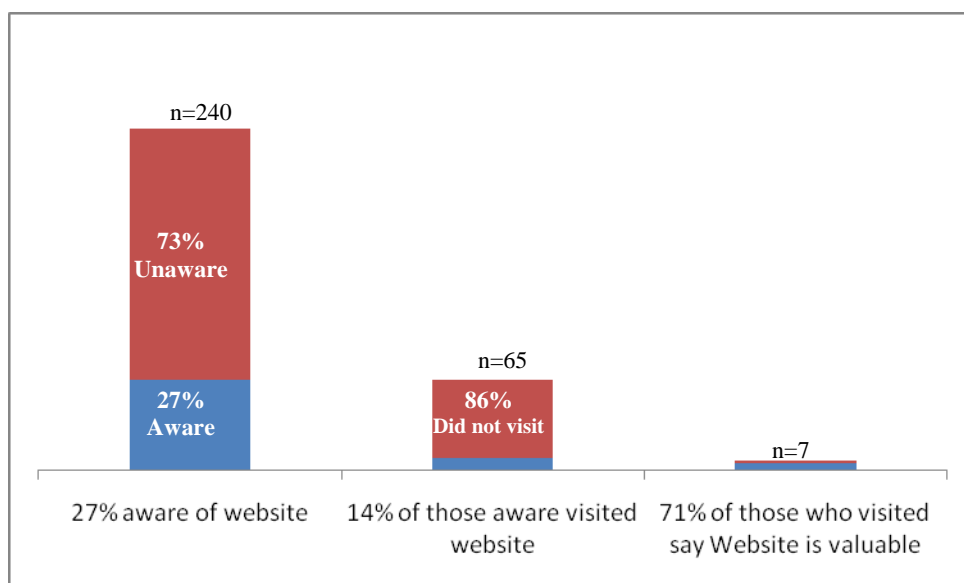
- Purchased an energy-efficient cooling system (48% v. 26%)
- Purchased energy-efficient motors/VFDs (35% v. 17%)
- Installed energy-efficient lighting (83% v. 72%)
- Replaced window(s) (34% v. 21%)
- Received an Energy Assessment (35% v. 21%)
- Recommissioning (30% v. 18%)
- Purchased energy-efficient appliance(s) (36% v. 26%)
- Installed programmable thermostat (81% v. 65%)
- Purchased energy-efficient water heater (36% v. 26%)
- Added/upgraded insulation in walls or ceilings (31% v. 14%)

These customers were more also likely to say they will take additional energy-saving actions in the next year (70% v. 55%).

### Awareness of Responsible By Nature Website

When asked about their awareness of the Responsible By Nature Website, 27% of surveyed business customers said they had heard of it. A small percentage (14%) of those aware confirmed they had visited the site. Most who visited the site found it of value, looking at an average of three pages on the site (see Figure 49).

**Figure 49. Responsible By Nature Website**



Q18. Have you heard about the “Responsible By Nature” Website from Xcel Energy?

Q19. Have you visited the Responsible By Nature Website?

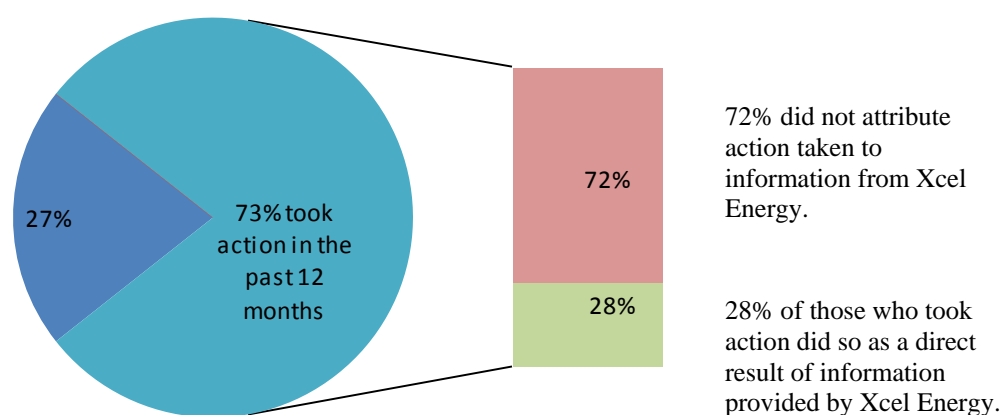
Q21. How valuable was the information on the “Responsible By Nature” Website? (Scale of 0 – 10 where 0 = not at all valuable and 10 = very valuable. Chart depicts responses of 6 – 10).

Six of the seven customers who visited the Website visited the Energy Smart Tips and rebate programs for home pages. Five of the seven visited the Recharge Colorado State rebate page, and four visited the page with programs and tips for businesses.

## Action

Business customers were asked if they had taken any action in the past 12 months to save energy. Seventy-three percent of these customers were able to name an action they had taken, and 28% of those who took action attributed it to information they received from Xcel Energy (see Figure 50). Sixty percent said they were likely to take additional energy-saving actions in the next year, and half of customers (50%) said they would be likely to participate in a program offered by Xcel Energy in the next one to two years. Those who have taken action were more likely to say they will take additional action(s) in the next one to two years (63% v. 50%), as were those who received the newsletter (70% v. 55%).

**Figure 50. Proportion of Customers Who Took Action: Unaided**



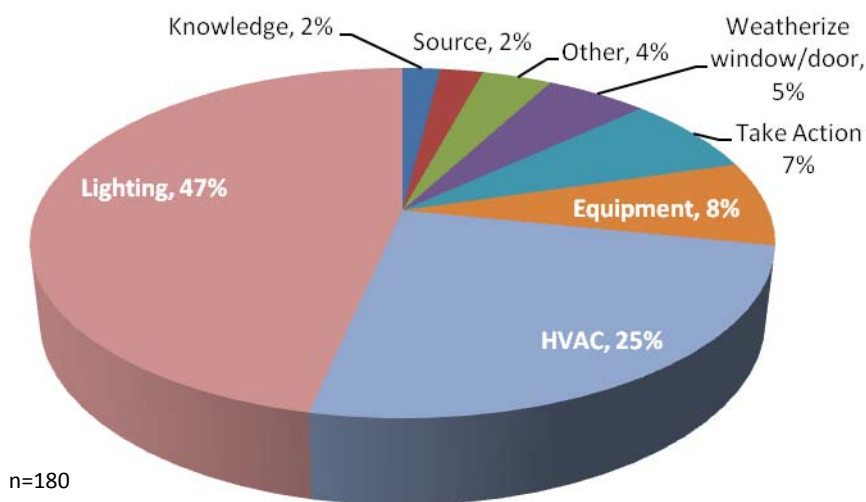
Q23. Have you or other employees taken any actions in the past 12 months to save energy in your company? (n=245)

Q24. Are any of these actions a direct result of information provided by Xcel Energy? (n=180)

About half (49%) of surveyed business customers reported being aware of energy-saving tips from Xcel Energy and rated these tips as important in their decision to take action (6 – 10 on a 0-10 scale, where 0 meant not at all important and 10 meant very important). Among the small number of customers who attended workshops offered by Xcel Energy, 78% said the workshop was important in their decision to take action (using the same 0-10 scale).

Lighting and HVAC actions make up the majority of actions named (see Figure 51).

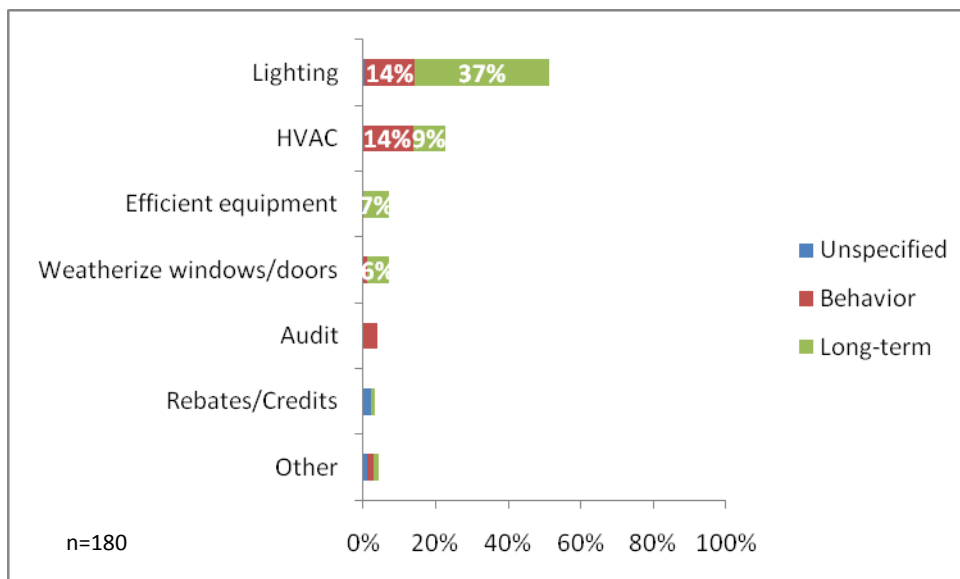
**Figure 51. Actions Taken To Save Energy: Unaided**



Q25. Please share what actions you have taken (based to responses).

Actions were classified as either behavioral or long term. Lighting behaviors include turning off lights in rooms that are unoccupied, while examples of long-term actions include installing LED lights or CFLs. HVAC behaviors are not using air conditioning, closing blinds, and turning the thermostat up or down, while long-term actions include using auto settings on the thermostat. The Take Action category includes turning off and/or unplugging electronics when not in use and keeping doors and windows closed. The breakdown of actions taken by business customers is shown in Figure 52.

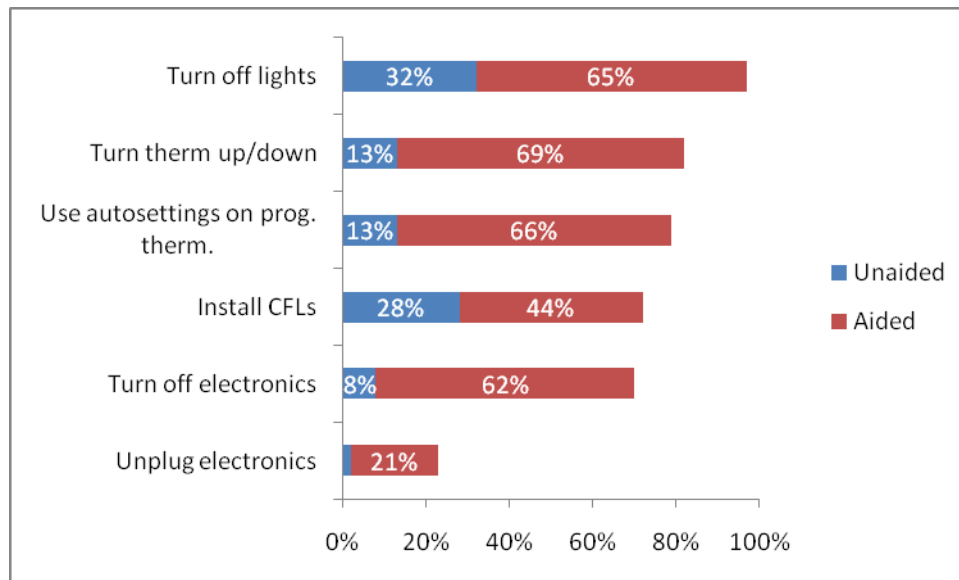
**Figure 52. Actions Classified as Behavior or Long-Term: Unaided**



Q25. Please share what actions you have taken (based to responses). (n=180)

Business customers were also asked on an aided basis whether they had taken specific actions in the past 12 months to save energy; aided and unaided responses are combined in Figure 53. Turning off lights and adjusting the HVAC controls were the most common actions taken. The frequency of those actions is presented in Table 12.

**Figure 53. Actions Taken to Save Energy: Unaided and Aided Responses, n=245**



Q25. and Q26. What actions have you taken to save energy at your business?

**Table 12. Frequency of Performing Actions to Save Energy**

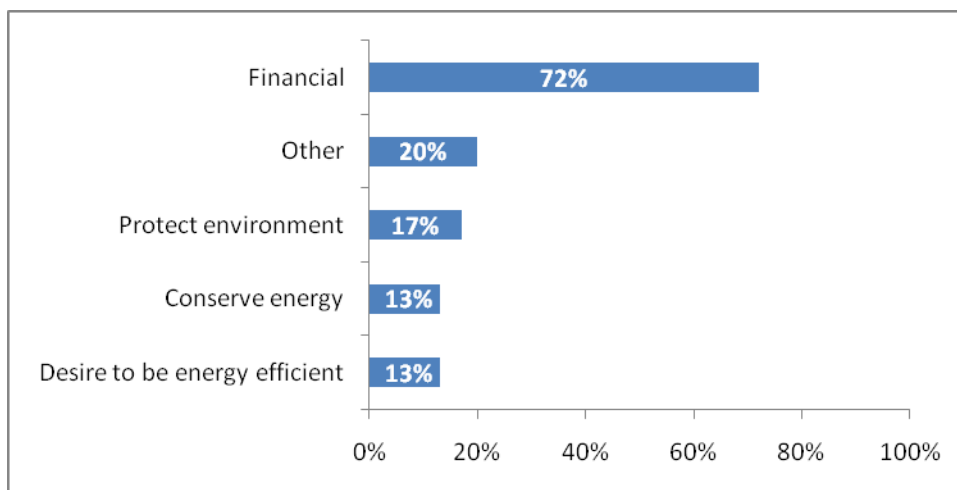
Action	Frequency		
	Always	Sometimes	Rarely
Turned off lights	82%	17%	1%
Use auto settings on thermostat	81%	17%	2%
Unplug electronic equip.	47%	49%	4%
Turned off electronics	57%	42%	1%
Adjusted temp.	Program 65%	Manually 35%	
Install CFLs	1-10 CFLs 29%	11-50 CFLs 43%	51+ CFLs 26%

Q25. What actions have you taken to save energy at your business? (unaided)

Q26. I will now read through some energy-saving actions that Xcel Energy promotes through energy tips. Please let me know if these are actions that have been taken in the company in the past 12 months. (aided)

Business customers were asked if there were factors other than information provided by Xcel Energy that were important in their decision to take action; 74% said yes, 26% said no. The most important additional factor mentioned was lowering energy bills. However, 43% of customers had more altruistic motives: protecting the environment, conserving energy, and the desire to be energy efficient (see Figure 54).

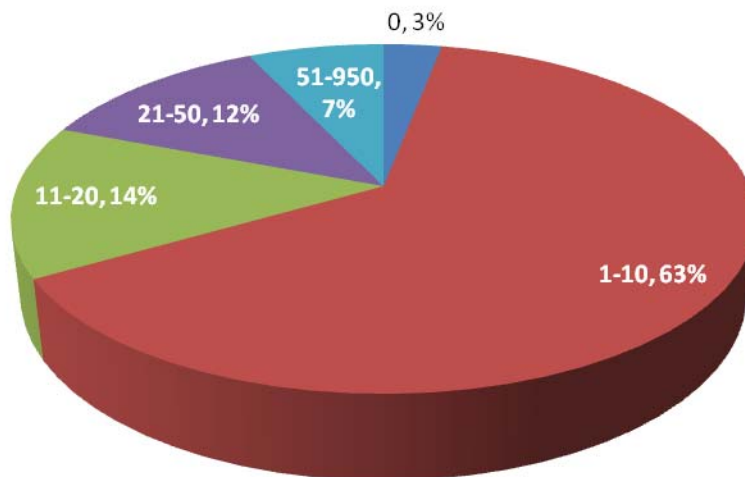
**Figure 54. Other Influences to Taking Action in Addition to Xcel Energy Information, n=143**



Q30. Was there anything else other than the information from Xcel Energy that was important in your decision to take action?

Business customers who said they had taken some action were asked how many co-workers or staff had also taken action; most report that others at the company are also engaged in these activities (see Figure 55).

**Figure 55. Co-Workers or Staff Also Taken Action, n=148**

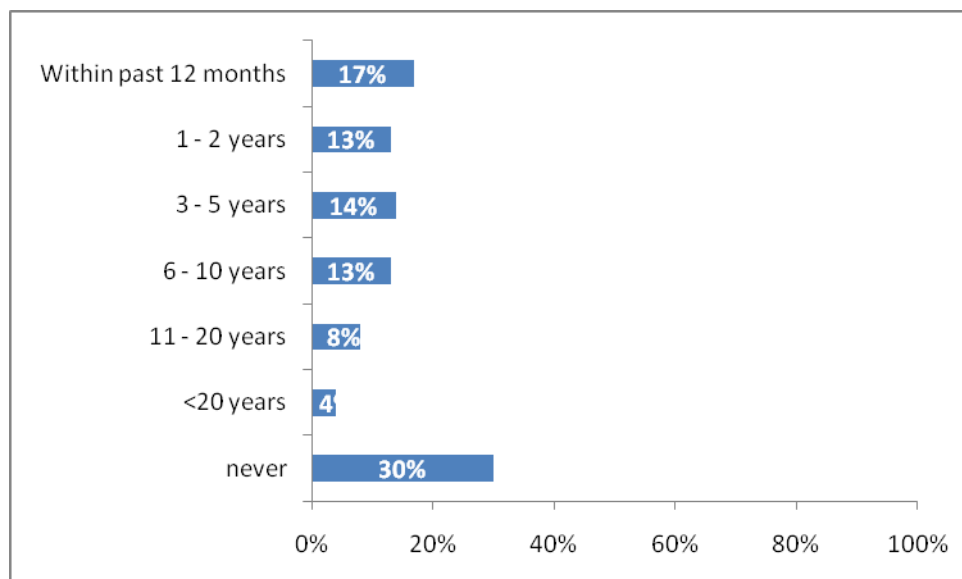


Q31. How many of your staff or co-workers have also taken the action(s) you described?



A majority of retrofit remodels of buildings that included heating or air conditioning replacement were conducted in the past ten years, although one-third of customers said their buildings had never had a retrofit (see Figure 56).

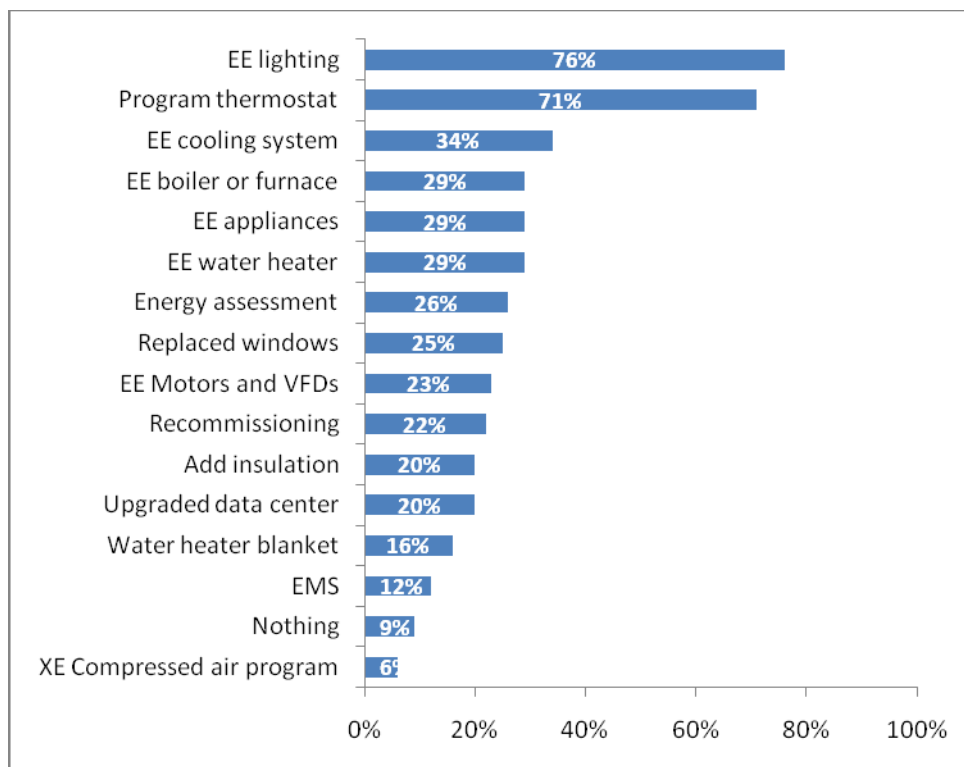
**Figure 56. When Last Major Retrofit Remodel of Building was Conducted, n=228**



Q32. When was the last time your company did a major retrofit remodel of the building, which included a heating or air conditioning replacement or other non-cosmetic improvement(s)?

Business customers were asked on an aided basis about specific changes to equipment to save energy. Lighting and HVAC changes were most frequently mentioned, followed by purchasing energy-efficient appliances and equipment, receiving an energy assessment from Xcel Energy, replacing windows, and recommissioning (see Figure 57).

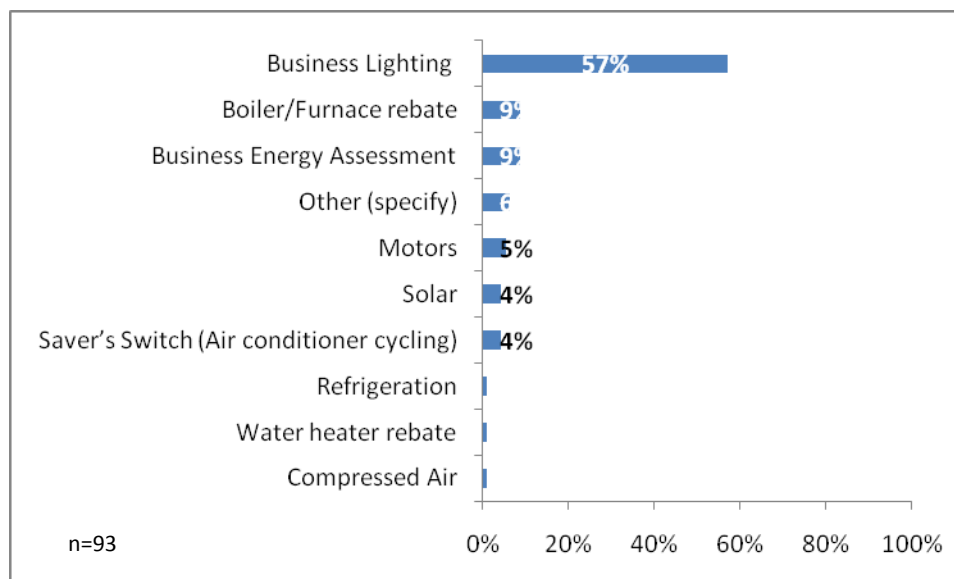
**Figure 57. Changes to Save Energy Related to Equipment, n=245**



Q33. Has the company made any changes to save energy related to equipment such as.....(each item read separately)?

One-third of business customers (33%) reported having participated in or received a rebate from an energy-saving program offered by Xcel Energy since January 2009. Customers were not just thinking about their business when they responded to this question, as the most frequently named program was lighting. Motor equipment and boiler rebates were the most frequently mentioned business rebate programs (see Figure 58).

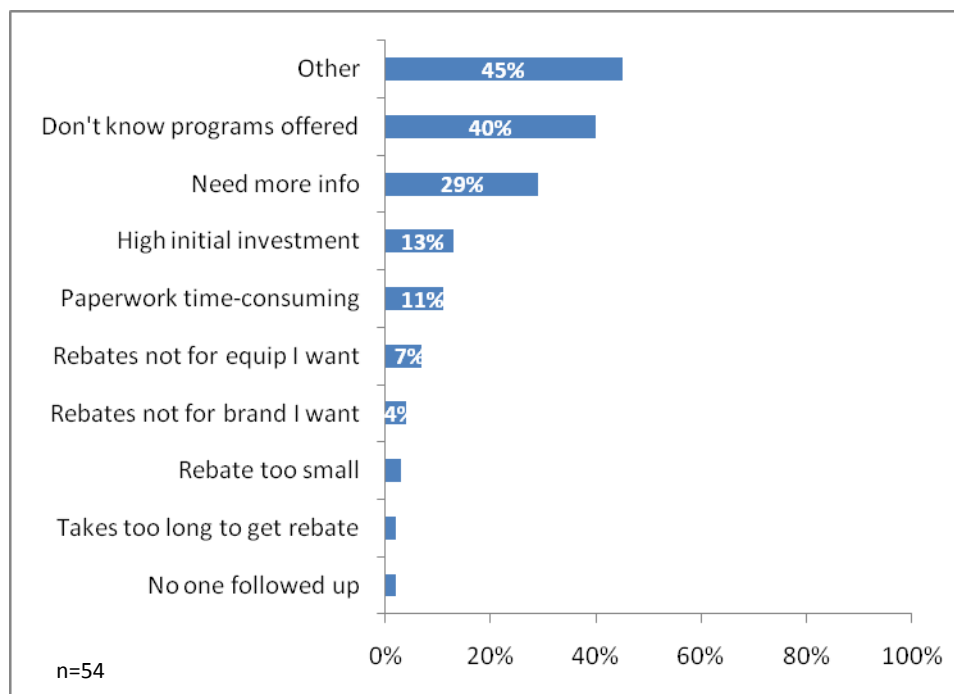
**Figure 58. Rebate Programs From Xcel Energy**



Q34. Has the company participated in or received a rebate from any energy-saving programs from Xcel Energy since January 2009?

When asked why they have not participated in a rebate program, the need for more information was the leading barrier identified (see Figure 59). Other responses included lack of time/interest; no qualifying projects; didn't see the need/programs didn't apply; already did projects before rebates were available.

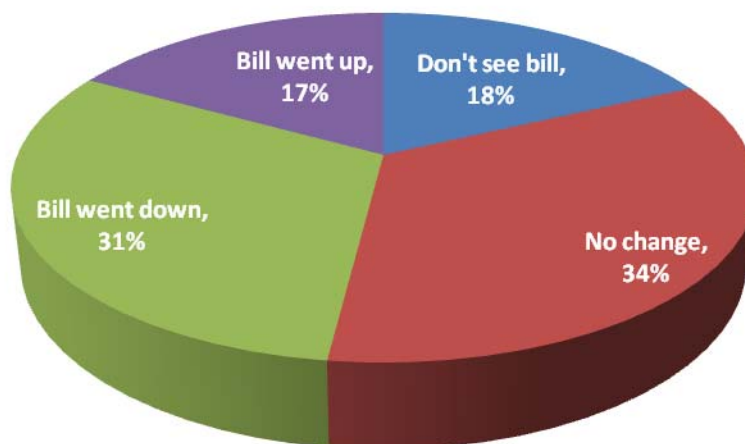
**Figure 59. Why Companies Have Not Participated in Rebate Programs**



Q34. What has kept the company from participating?

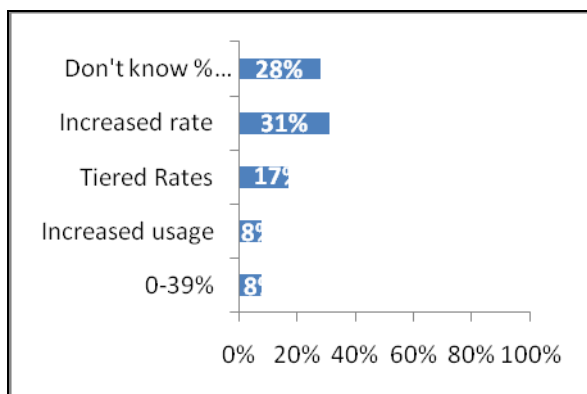
One-third (31%) of customers who have taken action or participated in a program offered by Xcel Energy reported a noticed decrease in their monthly bill, while another third (34%) report no change in the bill (see Figure 60).

**Figure 60. Changes in Monthly Bill**

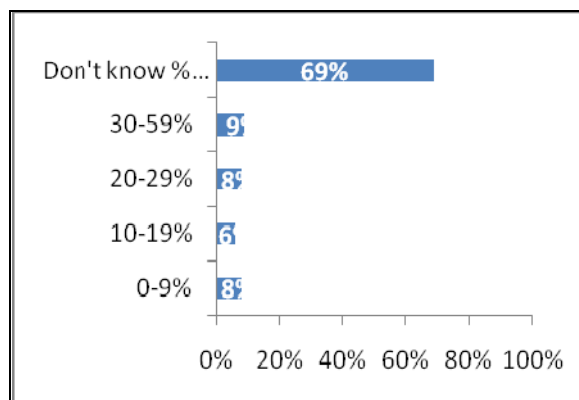


Q37. Have you noticed any change in the company's monthly utility bill that could be related to the energy-saving actions taken in your business?

*Reasons the Bill Increased*



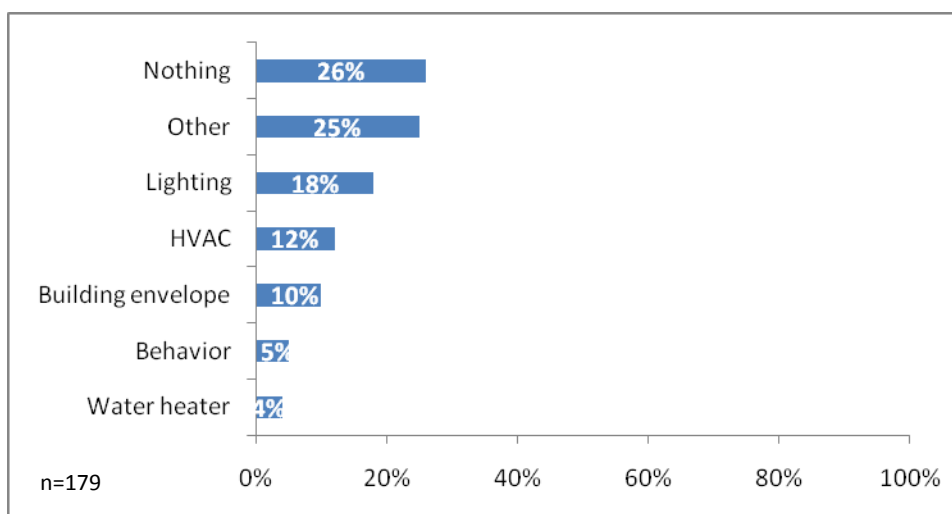
*Percentage the Bill Decreased*



## Value

Business customers rated the value of information received from Xcel Energy in raising their awareness of energy-saving activities; nearly half (48%) gave a rating of 6 – 10 on a 0 – 10 scale where 0 meant not at all effective and 10 meant very effective. Those who were aware of the newsletter were more likely to say the information was effective (55% v. 44%). Other information included equipment upgrading; adding new equipment; solar/wind energy; improved gas efficiency; and green building. One-quarter (26%) said there was no information that their company was likely to act on (see Figure 61).

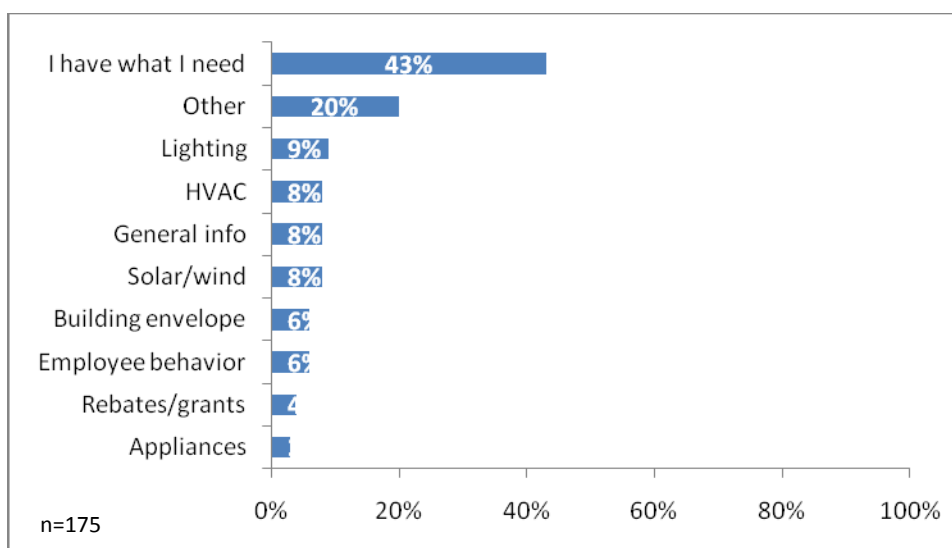
**Figure 61. Energy Saving Information Likely to Act On**



Q39. What type of energy-saving information is your company most likely to act on (that hasn't already been done)?

When asked what energy-saving information would be helpful, 43% responded that they need no additional information (see Figure 62).

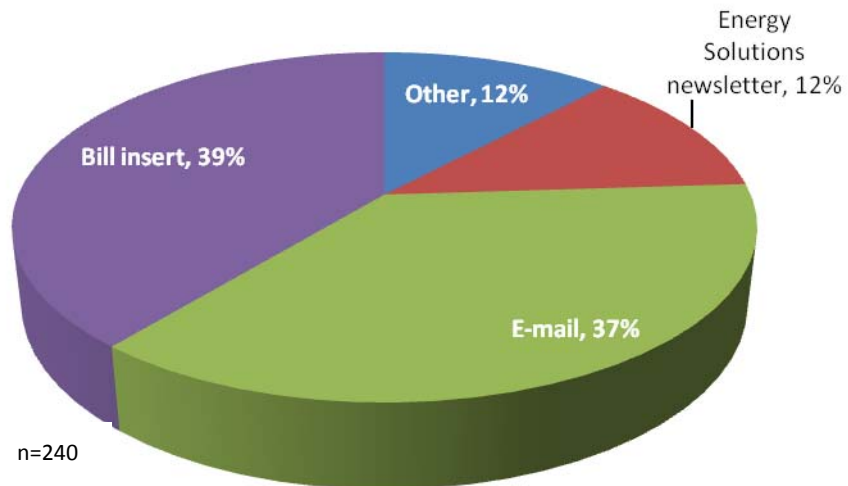
**Figure 62. Energy-Saving Information That Would be Helpful**



Q40. What energy-saving information would you find helpful that you do not already have?

Business customers preferred to receive communicated via bill inserts or E-mail (see Figure 63).

**Figure 63. Best Way for Xcel Energy to Communicate**



Q41. What is the best way for Xcel Energy to communicate this information to you/your company?

## Attitudes

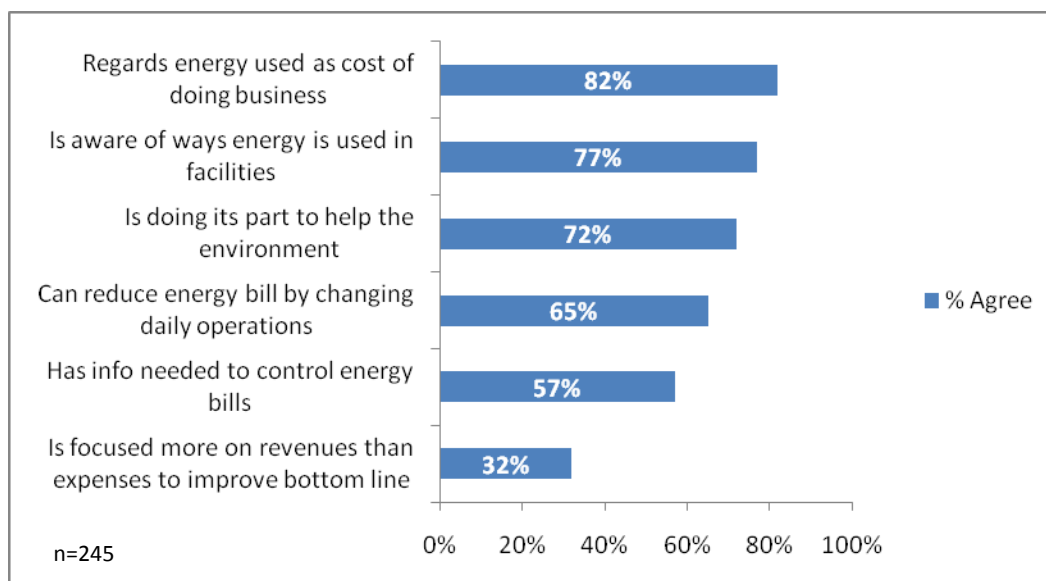
When asked how important saving energy was compared to other company concerns, two-thirds (67%) of surveyed business customers said it was important (on a scale of 0 – 10, where 0 meant very unimportant and 10 meant very important). In addition, customers were knowledgeable about how energy was being used and understood the connection between energy usage and the cost to their business. Furthermore, they acknowledged they have some control over the expense. They reported that cost is the primary reason for participating in energy-saving activities or buying energy-efficient equipment. See Figure 64 for business attitudes about energy use.

Business customers who received the newsletter were more likely to agree with the following statements:

- Business can reduce energy bill by changing the way electricity and natural gas are used in daily operations (72% v. 60%)
- Business has information needed to control energy bills (76% v. 45%)
- Business is doing its part to help the environment (80% v. 67%)

**Figure 64. Attitude About Energy**

Our business:

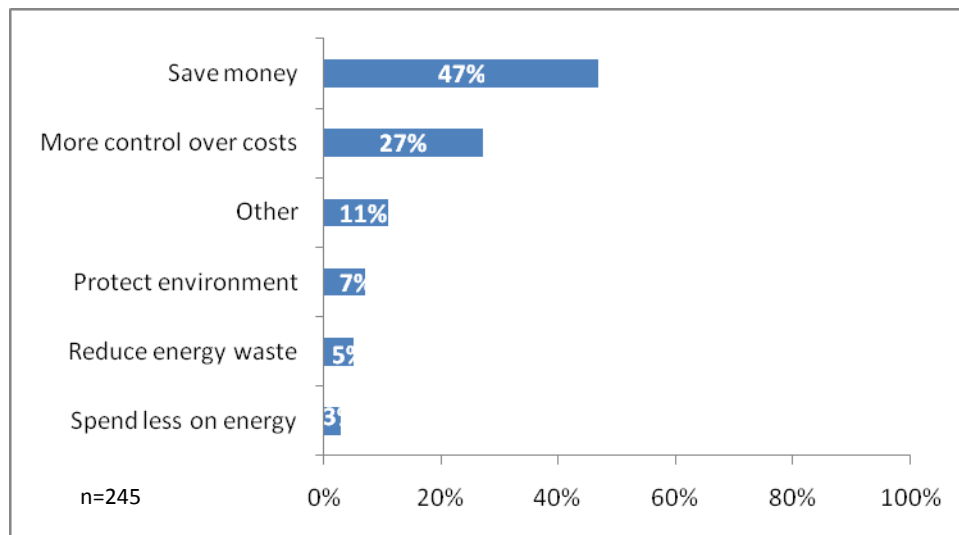


Q43 – Q48. On a scale of 0 – 10, where 0 means strongly disagree and 10 means strongly agree, how much do you agree or disagree with these statements? (Chart depicts responses of 6 – 10.)



Financial reasons, such as saving money and controlling costs, were the most important reasons for engaging in energy saving actions (see Figure 65).

**Figure 65. Most Important Reason to Participate in Energy-Saving Actions**

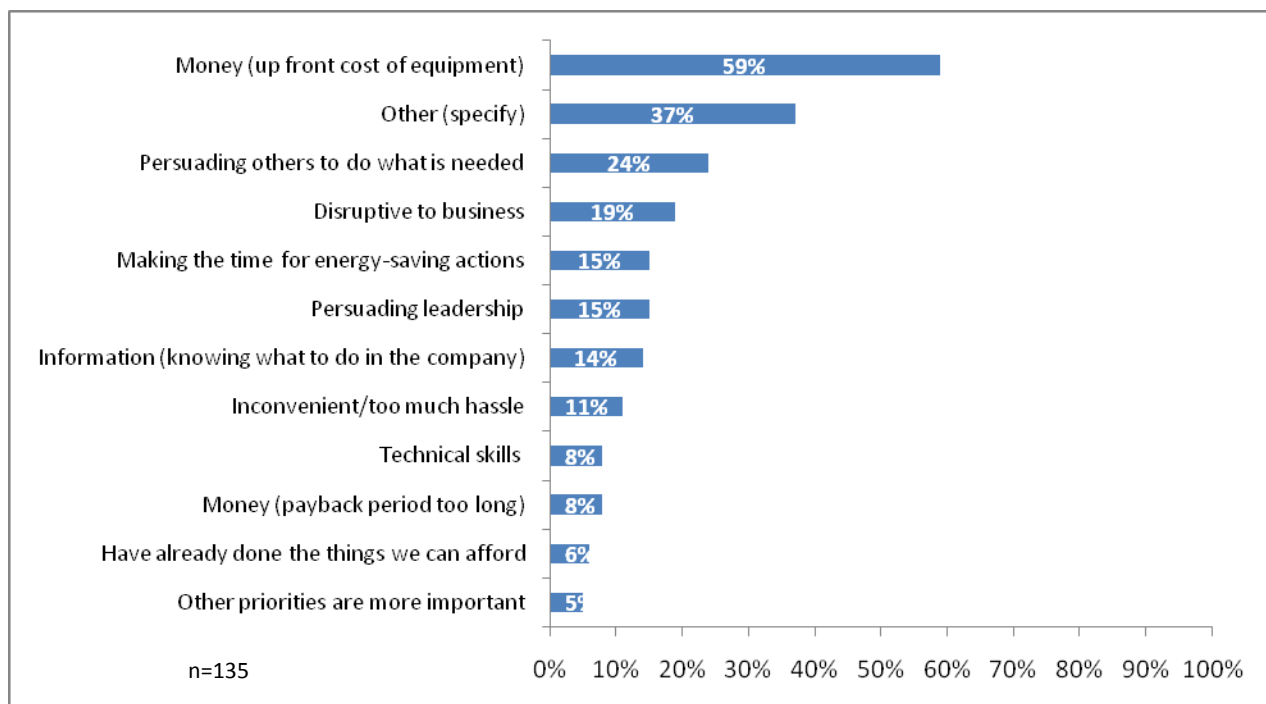


Q49. What would be the most important reason (LIMIT TO ONE) for your company to participate in energy-savings activities or buy energy-efficient equipment? (DO NOT READ)

## Barriers

Business customers found that making changes to save energy could be challenging; when asked the degree of challenge they faced, 60% gave a rating of 6 – 10 on a scale of 0 – 10, where 0 meant not at all challenging and 10 meant very challenging. Those who said they found making changes to save energy challenging were asked to name the top three challenges. The upfront cost of equipment was the leading challenge. Other top challenges were related to the difficulty of instituting change in an organization, whether with workers, leadership, or process (see Figure 66). Those who hadn't taken any action in the past 12 months were more likely to report that making changes is challenging (57% v. 74%).

**Figure 66. Challenges to Energy Savings**

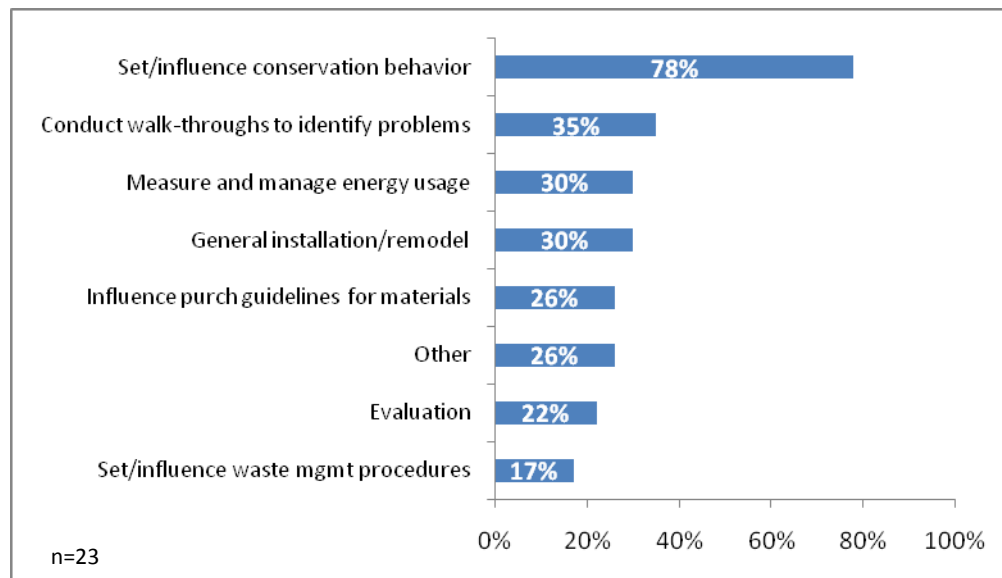


Q51. What are the top three things that make saving energy challenging in your company? (DO NOT READ).

## Firmographics

Business customers who work at companies with more than 10 employees were asked if there was an internal team for energy-efficiency or sustainability efforts; 21% did have such a team, and the majority of these teams were identified as setting or influencing energy conservation behavior (see Figure 67).

**Figure 67. Activities of Internal Group Dedicated to Energy Efficiency**

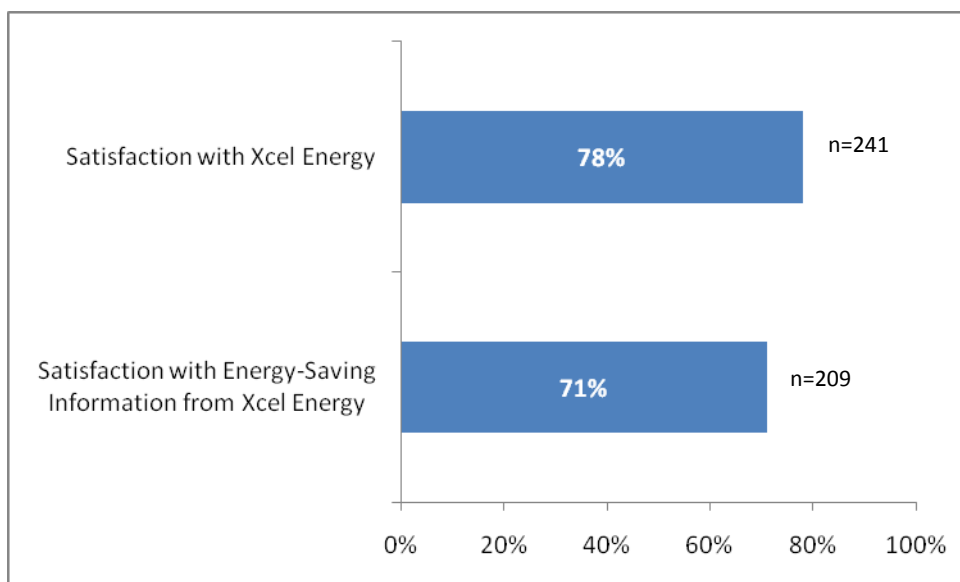


Q5. What activities does (internal group dedicated to energy-efficiency or sustainability efforts for you company) do?

## Overall Satisfaction with Xcel Energy

Overall satisfaction with Xcel Energy is moderate; 78% of business customers surveyed reported they are satisfied. Seven of ten business customers rate their satisfaction with energy-saving information received from Xcel Energy favorably, with 71% reporting they were satisfied. See Figure 68.

**Figure 68. Business Customer Satisfaction Levels**



Q6. On a scale of 0-10, where 0 means not at all satisfied and 10 means very satisfied, how would you rate your satisfaction with Xcel Energy? (Chart depicts responses of 6-10).

Q7. On a scale of 0 – 10, where 0 means not at all satisfied and 1 means very satisfied, how would you rate your satisfaction with energy-saving information for businesses provided by Xcel Energy? (Chart depicts responses of 6-10).

## Business Profile

Most customers (67%) worked for companies that were independently owned (as opposed to corporations or franchises). Nearly three-quarters (73%) of business owned the buildings they occupied, and over two-thirds (68%) planned to remain in that building for more than 20 years. Facilities were generally larger than 10,000 square feet (59%) and were built before 1975 (51%). Nearly half (48%) of customers work for companies that employ 10 or fewer employees. Businesses classified as ‘other’ included religious organizations, health care, education, non-profit services, and a variety of others. See Table 13.

**Table 13. Company Characteristics**

Company Characteristics	%
Type of business	
Retail	14%
Manufacturing	18%
Services	27%
Other	41%
Ownership	
Independently owned	67%
Corporate owned	18%
Franchised	3%
Other	12%
Building is	
Owned/is being bought	73%
Rented/leased	26%
Other	1%
Company will remain in facility	
<5 years	6%
5 – 9 years	10%
10 – 20 years	15%
More than 20 years	68%
Square footage of main facility	
<4,900 s.f.	24%
5,000 – 10,000 s.f.	17%
>10,000 s.f.	59%
Year facility built	
Earlier than 1975	51%
1976 – 1989	26%
1990 – 2003	19%
2004 or later	5%
Number of employees at location	
1 – 10	48%
11 – 30	25%
31 – 100	16%
101+	12%

## 7. Benchmarking Analysis

As part of the 2010 program evaluation, Xcel Energy contracted with Cadmus to conduct a benchmark study to inform ongoing development of the Customer Behavior Change (CBC) program. As part of this effort, Cadmus researched seventeen energy behavior change programs.

The programs examined for this study offer education, and in some cases feedback, to influence customers' motivations regarding energy use in their homes or businesses. Generally these programs seek to raise awareness about energy use in order to affect changes in energy use. While there are many organizations providing this information and feedback, Cadmus focused on utility sponsored programs for this study. The majority of program sponsors are from single utilities, but some are collaborative efforts between utility and government or community organizations, such as NYSERDA, California's statewide campaign, or joint efforts such as between the City of Palm Springs, Southern California Gas, and Southern California Edison. A direct program offered for utility customers by a third party organization, The Energy Trust of Oregon, was also included in the study.

Although not explored in-depth for this study, the Center for Energy and Environment, which runs the MN Energy Challenge and One Change, based in Canada, are two of many non-utility indirect programs that rely on social and/or community-based marketing. These programs offer creative approaches to program delivery; however, little is documented on their outcomes due to the varied funding and accountability. Additionally, these programs are typically not subject to the same regulatory oversight that utility programs face. This study is not meant to be exhaustive, but rather to bring insight to Xcel Energy's current CBC program based on a sample of similar and different approaches to instigating behavior change.

Behavior change programs are typically categorized into three types: 1) direct programs, which feature energy use feedback devices such as Power Cost Monitors; 2) indirect programs, which focus on communication and outreach techniques to raise awareness and motivate change; and 3) a hybrid approach, which may utilize direct data combined with specific and frequent calls to action, such as through a monthly home energy report. Of the eighteen programs sampled, eight were direct, nine were indirect, and one was a hybrid approach. Table 14 identifies each of the researched programs by sponsor, target audience, and program type.

**Table 14. Included Programs**

Sponsor	Target	Type
BC Hydro	Res	Indirect
BC Hydro	Nonres	Indirect
British Columbia, Newfoundland, and Labrador	Res	Direct
Cape Light Compact	Res	Direct
City of Palm Springs, Southern CA Edison, Southern CA Gas, and The Energy Coalition	Res/Nonres	Indirect
CPUC/State of California	Res/Nonres	Indirect
Energy Trust of Oregon	Res	Direct
Great River Energy	Res	Indirect
Hydro One	Res	Direct
National Grid and NSTAR	Res	Direct
	Res	Direct
Nevada Power and Sierra Pacific Power	Res	Direct
NYSERDA	Res	Indirect
OtterTail Power	Res/Nonres	Indirect
Puget Sound	Nonres	Indirect
Rocky Mountain Power	Res	Indirect
SMUD	Res	Hybrid
WMECO	Res	Direct

Two of the direct programs, NSTAR and National Grid, ran two joint direct pilots each, which for the purposes of this study were considered two programs instead of four. They also ran a joint program with WMECO, which is discussed briefly under the program types section and is reflected in Table 14.

The following detailed results and information is based on communications with program staff, reviews of Websites, information from E-Source, and other available documents such as publications and presentations about energy-efficiency behavior change programs.

## Program Type

Direct behavior change programs include an in-home device to monitor and report actual energy usage in the home. Devices range in cost and features. All of the direct programs researched during this benchmarking study were pilot programs. The majority of these programs offered the in-home monitoring devices free-of-charge to customers. NSTAR, National Grid, and WMECO worked together to test not only the effectiveness of a direct program, but also offered the devices through various methods, e.g., targeting customers who were signed up for a energy audit and marketing a variety of prices to different target groups (free, \$9.99, \$29.99, and \$49.99). Device features included providing real-time viewing of current energy use; view of savings in kWh, dollars, and carbon dioxide equivalent emissions; outside air temperature; and opportunities to learn and sign-up for additional energy-saving activities (e.g., unplugging chargers when not in use). The sign-up feature is a component on devices that have internet

connections and a user-interface. Another key component on portable models was the ability for the user to view status reports from any room in the house. All the direct programs researched for this study were for residential customers.

The majority of indirect programs focus on targeted messaging with a comprehensive approach to reach the primary audience. A great variety of marketing approaches were employed, from traditional bill inserts and radio ads to social media campaigns using Facebook and YouTube. Community-based marketing, including a speakers' bureau and community events, is another common approach to indirect behavior change programs. Often these programs have a tri-fold purpose:

1. To increase customer awareness of their home and/or business energy use,
2. To empower customers to make informed decisions to decrease the amount of energy consumed, and
3. To link customers with other relevant utility programs that can help them reduce their energy usage through the installation of more efficient equipment.

The hybrid approach, which is currently offered by several utilities, is highlighted in this study by SMUD. This approach is direct in that it provides real data feedback (although not in real-time) to homeowners, as well as indirect feedback. Customers receive monthly reports indicating their progress in comparison to other similar sized homes in their area. These reports have the potential to raise awareness about individual home energy use and provide a point of reference.

## Customers Type

Programs can be divided in three groups based on target audience: 1) those offered only to residential customers, 2) those offered only to nonresidential (commercial and/or industrial) customers, and 3) those offered to both. Of the eighteen programs researched, three targeted both residential and nonresidential sectors. All three were indirect programs: the Flex Your Power campaign in California, a statewide effort to increase energy awareness and empower change; Otter Tail Power, which targeted whole communities (e.g., Rothsay, Minnesota); and the collaborative effort between the City of Palm Springs, Southern California Gas, and Southern California Edison.

Two of the eighteen programs focused exclusively on the nonresidential sector. BC Hydro's nonresidential Employee Awareness program, which worked with companies to increase employee awareness of energy use to reduce consumption, and Puget Sound's Resource Conservation Manager program, which worked directly with school districts, government agencies, and large commercial businesses. Both of these programs were indirect in nature. The remaining thirteen programs were all focused on the residential sector: four indirect, eight direct, and one hybrid.

## Incentives

Unlike traditional equipment programs, behavior change programs do not offer participants dollar incentives. This is not to say that there are no incentives offered by the programs. Direct programs frequently offer in-home energy monitor devices at zero or reduced cost. Indirect programs may also offer incentives to motivate customers to participate and reward their



achievements. For example, several indirect programs, such as BC Hydro's Team Power Smart and Great River Energy, offer contests to increase and reward participation. Another example of an indirect program incentive is the Power Smart Excellence Awards offered each year by BC Hydro to recognize outstanding energy conservation leadership by business customers and partners. Specific values attributed with alternative incentives were not disclosed.

## Marketing

In addition to using incentives to increase participation, market segmentation is another tactic used by some utilities, including BC Hydro. Using profiling techniques such as Nielsen/Claritas' PRIZM, customers are grouped into distinct segments and targeted more effectively with slightly different messages and/or channels. In addition to traditional marketing efforts, employing social media is a good example of a relatively new way to reach out to customers. For example, people in their 20's and 30's tend to be highly skilled in electronic media and are more likely to engage with Facebook, YouTube, or Twitter than traditional marketing approaches, such as bill inserts. Therefore, knowing the types of messages that speak to each group within the targeted sector can lead to a more successful program than having only one message and/or channel applied.

The indirect programs sampled in the study leveraged multiple marketing channels from social marketing techniques, E-mail, and electronic newsletters, to local event-driven efforts meant to establish community ties and networking, such as workshops or tabling at outreach events. More traditional channels were also used, such as television, radio, direct mail, public service advertising, case studies, and co-op advertising with business participants. As mentioned above, all the direct programs sampled were pilots. Marketing activities reported for these include direct mail targeted to audit participants, general advertising, and press releases.

## Program Success

Most traditional prescriptive programs are accountable for the energy they save. Indirect behavior change programs by their nature do not have a direct connection to energy-efficient equipment, and thus do not have a clear or consistent outcome that can demonstrate energy savings. Determining the success of behavior change programs is also more difficult to measure because of the number and variety of ways behavior change can produce energy savings. Two common ways programs have been able to demonstrate success are by counting the number of participants affected by the program and by measuring attributed savings related to program activities. Cadmus explored these two success indicators for this benchmarking study and the results are described in the following two sections (Participation and Attributed Savings).

## Participation

Participation in indirect behavior change programs is more difficult to ascertain than traditional equipment incentive programs where each rebate application is clearly affiliated with a participant. While direct behavior change programs can track participation by the number of customers who have devices installed, indirect programs must grapple with quantifying the number of customers reached and the result of that outreach. Participation may be defined in several ways depending on how the program is set-up. For example, BC Hydro counts participation based on the number of customers who sign up, indicating a clear commitment to take action. This is a decisive approach, as each participant signed up can be tracked individually

or as part of a larger community. Other ways to count participation include through media touch points such as radio, print, or social media efforts or through direct contact(s) made with customers.

Out of the nine indirect programs, two clearly identified the number of participants: BC Hydro's Team Power Smart program, which registered 237,056 active participants as of the end of June 2010, and BC Hydro's Industrial Employee Energy Awareness program, which registered 40 companies by the end of June 2010 and expect to reach an additional 30 by the end of 2010. The hybrid program, SMUD's Home Electricity Report (HER), reported 35,000 participants in its 2008 pilot. All eight of the direct programs reported participation, see Table 15 for further details.

**Table 15. Direct Program Participation**

Sponsor	Participants
British Columbia, Newfoundland, and Labrador	200
Cape Light Compact	100
Energy Trust of Oregon	365
Hydro One	400
National Grid/NSTAR*	3,113
Nevada Power and Sierra Pacific Power	95
NSTAR	94.3% adoption
WMECO	13.7% adoption

\* total units sold in the joint utility program

Of the eight programs that reported participation, four were based on the quantity of in-home devices adopted and four were based on the number of homes participating. Again, please note that all the direct programs were pilots.

## Attributed Savings

Determining energy savings (i.e., reduced demand/consumption) is extremely difficult in behavior change programs. Unlike traditional equipment-based programs where a high efficiency model may have an accepted deemed savings level or where metering may be available there is no clear method to measure savings from indirect programs. Behavior change programs are reliant on personal and business commitments to change processes and energy use based on an increased awareness and understanding of energy and consumption habits. As such, not all of the programs researched were able to identify achieved savings, nor were attributed savings given in a uniformed manner (e.g., percent reduction verses total number of kWh saved). Table 16 lists savings goals and attributed savings for the benchmarked programs.

**Table 16. Savings**

Sponsor	Attributed Savings
BC Hydro	Goal: 10% target reductions per participant
BC Hydro	Goal: 600 GWh/yr entire program
British Columbia, Newfoundland, and Labrador	18% reduction in Newfoundland and Labrador; 2.7% to 9.3% (winter) in British Columbia
Cape Light Compact	Average of savings 9.3%, equivalent to 2.9 kWh per day
City of Palm Springs, Southern CA Edison, Southern CA Gas, and The Energy Coalition	Goal: reduce the City's overall energy use and peak load by 30% in five years
CPUC/State of California	6.7% electric reduction statewide and 14% demand reduction for the summer of 2001
Energy Trust of Oregon	Participants reported believing they had reduced their energy consumption (65% HER group and 73% EA)
Great River Energy	9,370,800 kWh
Hydro One	6.5% aggregate reduction
National Grid/NSTAR/WMECO*	2.9% savings for monitor users (~\$64/year); 63% of participants indicate behavior change; 60% noticed savings in their bill
Nevada Power and Sierra Pacific Power	Estimated savings totals 5.28%
NYSERDA	94 MW demand reduction at system peak during summer 2002 and additional 37MW during summer of 2003
OtterTail Power	Goal: 10-15% target reductions by 2015
Puget Sound	5 % annual energy savings per year/participant
Rocky Mountain Power	Not quantified
SMUD	2.5% reduction

\* attributed savings from joint utility program

As shown in Table 16, attributed savings ranged in direct programs from 2.9%, a savings of roughly \$64 annually in the Northeast United States, to 18% in Newfoundland and Labrador, Canada. Savings from indirect programs ranged from 2.5% to 6.7%. Several reported goals for indirect programs hovered around 10%, although one program had a goal of 30% (City of Palm Springs, Southern CA Edison, and Southern CA Gas).

The long-term question concerning direct programs is how sustainable the impacts will be after the initial novelty of the devices subsides. Unlike equipment that can demonstrate savings over time, behaviors are discrete activities that may require sustained repetition to yield measureable savings. Resources explored for this study did not turn up any long-term studies that decisively answer this question, but as programs gain participation, greater attention will be directed to the persistence of behavior change.

## Summary of Best Practices

Behavior change programs are just beginning to become part of mainstream DSM portfolios. Utilities continue to seek the best technologies and messaging approaches to provide effective communication so that customers can make empowered choices concerning their energy use without sacrificing comfort and quality service.

Based on the research conducted for this study, Cadmus has identified the following best practice suggestions in Table 17. These best practices are a synthesis of findings from secondary research as well as the programs identified in this chapter. The table also indicates which best practice methods are currently incorporated in Xcel Energy's CBC program. Please note that many of the practices in the table below overlap with each other.

**Table 17. Best Practices**

	Best Practice	Current CBC Practice	Partial or Developing CBC Practice	Not Observed/in Effect
1	Participation on different levels		X	
2	Brand program with customer facing name and design			X
3	Incorporate a clear call to action, backed up with a commitment			X
4	Incremental approach to program development	X		
5	Integrated ad campaign	X		
6	Participant interaction and follow-up opportunities		X	
7	Outreach innovation	X		
8	Targeted outreach through segmentation		X	
9	Savings estimate for recommended energy-saving behaviors		X	
10	Ways for customers to understand usage		X	

As indicted in Table 17, Xcel Energy has made early strides towards developing a strong indirect behavior change program.

Out of the 10 best practices listed, Xcel Energy is currently fully implementing three. Of these three, two are clearly areas where Xcel Energy has excelled in this early phase of program development and implementation: offering an integrated ad campaign, and using innovative channels for outreach. Five additional best practices are areas the program has implemented partially or could enhance. Two best practices were not observed in Xcel Energy's CBC program. The following provides further detail on each best practice.

### **Best Practice 1: Participation**

The first best practice is to clearly define meaningful participation. As is described in behavior change literature, change does not often happen instantly. There is often a continuum of decision making from awareness to action. Effective behavior change programs recognize that not everyone is at the same place on the continuum, and they seek to move participants closer to the point where they act and ultimately sustain behavior change. This continuum is reflected in how participation is regarded in effective behavior change programs. For example, participation may be understood in three related categories.

- **Touched:** This group includes customers who were exposed to program outreach. They may have received direct mailings, heard radio ads, attended events where Xcel Energy

was present, or they are simply in a position to receive the program's awareness and outreach messaging.

- **Conscience:** This group is working toward behavior change as part of the touched group, and are now consciously aware of energy-saving tips provided by the program. They actively consider how the program messaging may apply to their household and begin to seek out information regarding how they can get involved.
- **Engaged:** This group has made energy-saving behavior changes and may be committed to specific changes in their households and/or businesses. They are looking for new ways to save energy that go beyond what they have done already. They are open to continued dialogue with the program and respond positively to new opportunities. This group may serve as program advocates and influence those around them to move along the continuum towards greater energy efficiency.

### **Best Practice 2: Program Brand**

Related to understanding participation levels, customers need to understand what program they are participating in. Eight of the nine indirect programs researched for this benchmarking effort had branded program names. A clear branded program name allows for greater recognition from customers and creates a link between outreach and marketing efforts.

### **Best Practice 3: Commitment**

Incorporating a clear call to action backed by a commitment is one of the practices noted in Table 17. BC Hydro's program is one example of how tracking participation based on commitment sign-ups may also serve as a strong indication of follow through on new opportunities. A commitment, such as the downloadable form used by Great River Energy, can also be used to track initial calls to action.

### **Best Practice 4: Incremental Program Development**

Programs that remain flexible in their overall approach, as well as those that seek out customer feedback, may more easily adapt the program to better suit customer needs as the program develops. Limiting program activities only to what has worked in the past may shortchange new opportunities. While the CBC program has only completed one full program year (2009), the team is actively searching to refine its approach and add new activities (i.e., house parties), to increase awareness and reach a wider audience.

### **Best Practice 5: Integrated Ad Campaign**

The CBC program has set an excellent example in collaborating on the manifesto campaign that integrates behavior change messaging with other DSM program opportunities. This is a departure from approaches observed in other companies in which programs are promoted separately. An integrated ad campaign is one way to use limited resources efficiently while maximizing exposure.

### **Best Practice 6: Participant Interaction and Follow-up**

Social media portals are used extensively by some programs to encourage behavior change. Uses include promoting events where the behavior change booths are present and subsequently providing photographs and stories from the events. Because social media portals are designed to

provide more than one-way communication, they offer an ideal platform for customers to follow up with the program after their first contact. Such interactions also allow for tracking to inform what activities and questions are most common.

### Best Practice 7: Outreach Innovation

One unique example of an outreach approach to behavior change is the development of a mobile telephone application (i.e., app) by ConEdison of New York. ConEdison offers a free application called “The Power of Green” to anyone, regardless of their location and customer status. The app provides energy saving tips, videos, and a checklist for actions the user may take to save energy in their home. Another example of outreach innovation available on the ConEdison corporate Website is an online game promoting energy savings. These are just a couple of examples of how one utility has effectively used innovative approaches to keep material fresh and interesting for a wide range of customers.

**Figure 69. Innovative Outreach Examples<sup>5</sup>**



### Best Practice 8: Target Outreach through Segmentation

Much of the reviewed literature discussed the benefits of using segmentation to target behavior change messaging. In some cases, utilities are also using segmentation to select appropriate marketing channels for behavior change promotions. With segmentation, marketing dollars may stretch further by narrowing the target and selecting an appropriate channel. Recipients also tend to find messaging more relevant to them when it has been tailored to their segment.

### Best Practice 9: Savings Estimates for Energy-Saving Behaviors

As customers become more aware of the energy they are using, they typically want to understand how the actions they take may contribute to savings. In addition, the customers want to see the reduced energy use impact of their decisions. Providing deemed savings estimates increases the power of call-to-action messages by offering customers further information on how their day-to-day activities are related to energy consumption. This guidance also empowers customers by giving them the necessary tools to make choices that reduce their energy use without sacrificing comfort or quality of life. This may also help them prioritize the array of choices by focusing on ones that create the most savings. A good example is Rocky Mountain Power and their “Energy

<sup>5</sup> As found on ConEdison’s “The Power of Green” program Website:  
<http://www.coned.com/thepowerofgreen/index.asp>

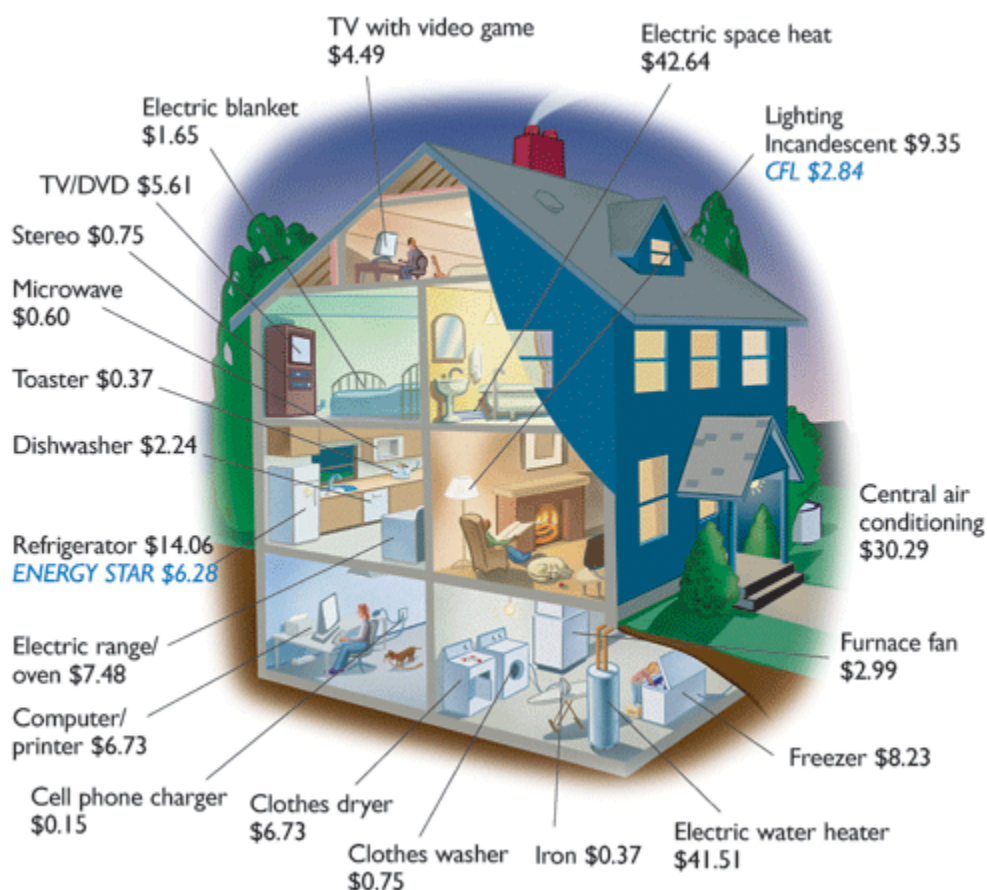


Efficiency Calculator,” which displays both the savings in terms of dollars saved per year and pounds of CO<sub>2</sub> for actions taken. Rocky Mountain Power credits EPA and ENERGY STAR<sup>®</sup> data as the source of these estimates.

### Best Practice 10: Ways for Customers to Understand Their Energy Usage

Similar to offering saving estimates, another best practice is providing additional methods to expand customer understanding of energy use. Rocky Mountain Power also uses a cut-away illustrated home similar to the Smart Energy Home on the Responsible By Nature Website, see Figure 70. The Rocky Mountain Power illustration, however, also includes call-outs for each room’s power using equipment with the associated average monthly energy cost. In a couple cases, efficient alternatives are also included, illustrating dramatically lower costs for items such as ENERGY STAR<sup>®</sup> appliances and CFLs. This is a low-cost approach to providing information to aid customers’ energy usage awareness and understanding.

**Figure 70. Rocky Mountain Power Example of Illustrated Home Energy Use<sup>6</sup>**



<sup>6</sup> <http://www.rockymountainpower.net/res/sem/eeti/heiu.html>

## Potential Next Steps

As noted earlier, the CBC program is still in the development stage of implementation. As such, we recognize that Xcel Energy has put forth a great effort to incorporate best practices and reach their targeted audience. The suggestions offered below are based on the best practices outlined in this report and are presented for consideration to enhance the CBC program as it expands and matures over the next several years.

1. **Participation: Consider expanding the definition of participation to include the full continuum from awareness to action.** Although Xcel Energy currently tracks the first touched group, they may be closer to measuring energy-saving impacts of behavior change by expanding the definition of participation and tracking to include both the conscience and engaged aspects of participation as well.
2. **Branding:** Xcel Energy's business workshops, Smart Energy Employees (SEE), are not currently used in a high profile manner and could be expanded to include the entire business side of the CBC program to capitalize on branding. On the residential side of the CBC program, Xcel Energy could **consider developing a completely new program name or reconfigure the Responsible By Nature tag to become the program name.** For example, MN Bright Ideas is both the program name and the Website address (i.e., MNBrightIdeas.com).
3. **Ask for Commitment: Consider adding a commitment to the CBC program and track actions taken as well as participation activity.** Cadmus encourages Xcel Energy to consider incorporating a method of clear commitment as it ramps up the CBC program. Efforts to define participation could be enhanced by asking for a commitment to take specific actions or reduce usage by a set amount, such as 10% annual usage. This could also serve as a method to increase the call to action for customers.
4. **Incremental Program Development:** We encourage Xcel Energy to **continue to be flexible in its program design and to integrate new opportunities to reach customers.** Further developing the social media outlets, such as a Facebook site, You Tube, Twitter, and Flickr, could open new doors to behavior change with customers. Currently, Xcel Energy uses social media for delivering company news, outage updates, safety tips, philanthropic activities, load reduction requests, and some product and program promotions, but little customer exchange is evident. The corporate Xcel Energy Facebook page does link to the Responsible By Nature Web page, but the Responsible By Nature Website does *not* link back to any of the social media portals. Organizing existing resources to reference each other could also enhance customer satisfaction with the program, as they may be better able to find resources applicable to their situation.
5. **Integrated Ad Campaign:** As noted under the best practices, the CBC program has excellent example of an integrated ad campaign. While Xcel Energy's 2010 advertising platform (i.e., 'manifesto') integrates CBC messaging with other DSM program promotion, many may perceive the manifesto campaign or the Responsible By Nature Website as the CBC program. While these are excellent examples of tools to market the program without a branded program name or logo design, they may overshadow the program and diffuse messaging about behavior change. **Continue the integrated**



**advertising and marketing approach, but use a CBC brand identity to direct attention to CBC program content.**

6. ***Participant Interaction and Follow-up:*** Another practice where Xcel Energy is already employing significant effort, but where additional focus might be warranted, is in providing interaction and follow up opportunities. Currently, the direct customer contact through community events and workshops provides great opportunities for positive interaction with customers. Xcel Energy could consider adding a short, informal Web poll to identify aspects of the Responsible By Nature Web page that are most active to ensure a continuous feedback loop. This would allow the program to increase its ability to easily respond to needs identified by customers. **Consider developing and executing follow-up procedures to enable two-way communication with customers.**
7. ***Outreach Innovation:*** Continue to try new approaches such as the House Party pilot and measure their success for reaching and engaging customers. Collect customer feedback and measure effectiveness of new approaches to aid decision-making about the level of investment appropriate for each one.
8. ***Target Outreach through Segmentation:*** Although the CBC program has access to Nielsen/Claritas PRIZM segmentation data and use of this was outlined in the initial program design, the program has yet to implement a segmented marketing approach (i.e., targeted messaging to specifically defined segments). **Consider revisiting how segmentation is used and include Mainstream Families and Midlife Success as target audiences for program marketing.**

The Xcel Energy CBC program addresses both residential and business sectors; however, the inclusion of the industrial segment could be added to expand the sectors served. Just as equipment programs are aimed at all three sectors, behaviors can account for major savings across all three segments. **Consider expanding behavior change opportunities to an industrial segment.**

9. ***Ways for Customers to Understand Their Energy Usage:*** Another area where Xcel Energy is beginning to make progress and should continue developing is in providing ways for customers to understand their energy usage. One effort already underway is the Power Check Watt Meter available through local libraries. Another approach that Xcel Energy might consider is to look for related activities within the company, such as collaborating with the Home Energy Report pilot program that provides comparisons of individual home energy use to similar homes in the area. **Expanding this type of collaboration within the company may allow new opportunities for customers to understand their usage and may also enable the ability to track energy-savings resulting from behavior change.**

## **Appendix A: Data Collection Instruments**

1. Residential Telephone Survey
2. Business Telephone Survey

## **Appendix B: Detailed Survey Results**

1. Cross-tabs: Residential Participation Components
2. Cross-tabs: Residential PRIZM Life Stage Segments
3. Cross-tabs: Business Participation Components
4. Cross-tabs: Business Firmographics
5. Residential Frequencies
6. Business Frequencies

## **Appendix C: Behavior Change Research References**