



**HOLY CROSS ENERGY**

A Touchstone Energy® Cooperative 

## 2014 Member Survey

Attitudes on  
Cooperative Performance, Communications with Members,  
and Power Supply Mix

February 2015



**GDS Associates, Inc.**  
Engineers and Consultants

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# 1 Introduction

Holy Cross Energy (HCE) conducted the 2014 Member Survey during the months of November and December 2014. The purpose of the survey was to collect member attitudes and opinions on member services and cooperative management, communication options, power supply mix, and the cost for increasing HCE's renewable power supply resources. This report presents the key findings of the survey and the methodology employed in conducting the survey. Additionally, a comparison of results to the 2012 survey is presented for those questions that cross the 2012 and 2014 surveys.

The questionnaire used to administer the survey and the detailed results for each question are presented in the Appendix. In addition to tabulating results in the aggregate for all members, the data was analyzed to determine differences in attitudes and opinions by the following categories:

- County
- Years an HCE member
- Age of respondent
- Residence within the Aspen Urban Growth Boundary
- Participation in HCE's Renewable Premium Program

## 1.1 Key Findings

**Holy Cross Energy Report Card** – The survey included 11 questions that focused on members' opinions regarding HCE management and member service. Overall, and on a scale from 1 to 10, members are very pleased with HCE, as scores ranged from 8.3 to 9.2 (refer to Section 5.1 for more detailed results on member attitudes regarding the member service issues investigated). These scores are equal to or slightly higher than those computed in the 2012 survey.

Members in Pitkin County scored HCE highest, while the lowest scoring was made by members in Garfield County. Consumers that have been HCE members for more than 15 years, and members who participate in the Renewable Premium Program scored HCE higher on the report card issues than did other members in their respective subgroups. Statistical testing indicates no significant differences in report card scoring for members residing inside or outside of the Aspen Urban Growth Boundary.

As a basis for comparison, scores for HCE were compared to similar research conducted at the national level. The American Customer Satisfaction Index (ACSI) measures customer satisfaction on a scale of 1 to 100 for different industries in the U.S. The index is based on a series of customer satisfaction questions similar to some of the questions included in HCE's survey. With respect to electric utilities, the index was 75 for investor-owned utilities, 76 for municipals, and 81 for electric cooperatives in 2014. Member satisfaction with HCE compares very favorably to the national index.

At the national level, the electric industry compares favorably to other industries. The index value in 2014 for all industries (12 primary sectors) was 76, ranging from a low of 65 for Public Administration/Government to a high of 81 for Manufacturing/Durable Goods. Refer to Appendix A for more details on the ACSI values by sector and industry.

**Member Services and Communications** – Members did not overwhelmingly indicate one preferred mode of communication between HCE and members. The “Consumer Connection” newsletter, email, and HCE’s website scored highest in the aggregate. Regarding those issues HCE routinely communicates to members, members indicated that HCE was most effective communicating information on member equity refunds. HCE’s effectiveness in communicating all other key matters was scored essentially the same for each item. Refer to Sections 5.2 and 5.3 for more details.

**Power Supply Considerations** – Overall, members rank reliability of service slightly above the cost of electricity, followed by environmental impact. Members participating in the Renewable Premium Program rank environmental impact above cost of electricity.

**Renewable Energy Goals and Pricing** – Members are mixed on their willingness to pay above current rates to meet HCE’s new renewable energy power supply goals of 30% by 2020 and 35% by 2025. Nearly 30% of all members do not want to pay any amount above current rates. For those members willing to pay more to help HCE meet its new renewable goals, the average increase members are willing to accept is 2.4%<sup>1</sup>. The percent increases to 3.4% for willing members in the Aspen Urban Growth Boundary and 4.2% for willing members participating in the Renewable Premium Program<sup>2</sup>.

About 60% of all members expressed an interest in purchasing a greater percentage of renewable energy. The percentage jumps to 76% for members 49 years of age and under, and 85% for members participating in the Renewable Premium Program. Of members expressing an interest in purchasing a higher percentage of renewable energy, only 71% indicated they were willing to pay above existing rates to do so. This percentage increases to 80% for members 49 years of age and under, and 92% for members participating in the Renewable Premium Program.

Nearly 74% of all members have made energy efficiency improvements in the last five years. Just over 66% of all members are aware of HCE’s energy efficiency programs, rebates, and financing. The percentage increases to over 78% for members in the Aspen Urban Growth Boundary and members participating in the Renewable Premium Program. Similarly, members in these two groups have utilized one or more of the programs to a greater extent than other members.

HCE’s “Consumer Connection” newsletter is by far the most recognized mode of communicating information about the Cooperative’s energy efficiency programs.

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<sup>1</sup> Percentages are based on the midpoints for each alternative response to question #5. The value for “More than 8%” is 12%.

<sup>2</sup> Ibid

## 2 Sample Characteristics

The sample was designed to represent all local<sup>3</sup>, year-round residential members receiving electric service on rate codes 1 through 29. A total of 3,500 questionnaires were mailed, and valid responses were collected from 452, yielding a response rate of 13%<sup>4</sup>. The level of precision achieved for this survey was  $\pm 5\%$  at the 95% confidence level.

Representation of the sample in terms of geographic location and average kWh consumption was good; however, results were weighted to insure that they represented current population distributions by county. Comparisons of population and sample distributions are summarized as follows:

Sample Selection by Zip Code

Zip Code	Town	Sample Selected	Sample Realized
80426	Burns	0.00%	0.00%
81601	Glenwood Springs	2.30%	3.90%
81602	Glenwood Springs	0.30%	0.00%
81611	Aspen	8.00%	6.90%
81612	Aspen	5.00%	5.20%
81615	Snowmass Village	4.30%	3.20%
81620	Avon	10.40%	4.70%
81621	Basalt	8.30%	8.60%
81623	Carbondale	8.90%	13.00%
81631	Eagle	11.10%	10.60%
81632	Edwards	10.30%	11.10%
81635	Parachute	6.10%	9.30%
81636	Battlement Mesa	0.10%	0.00%
81637	Gypsum	7.50%	4.70%
81642	Meredith	0.10%	0.20%
81645	Minturn	0.30%	0.00%
81647	New Castle	0.40%	0.70%
81649	Red Cliff	0.00%	0.00%
81650	Rifle	0.70%	2.20%
81652	Silt	1.00%	1.20%
81654	Snowmass	1.30%	1.50%
81655	Wolcott	0.30%	0.70%
81656	Woody Creek	0.80%	0.50%
81657	Vail	6.70%	7.10%
81658	Vail	5.90%	4.70%

<sup>3</sup> Eagle, Pitkin and Garfield counties

<sup>4</sup> Response rates achieved in three previous surveys ranged from 13%-20%. Due to time constraints in conducting the 2012 survey, the allotted response time was limited to three weeks.

Members by County

County	Population Distribution	Sample Distribution	Weight
Eagle	58.1%	49.4%	1.1757
Garfield	22.1%	30.2%	0.7328
Pitkin	19.8%	20.4%	0.9690

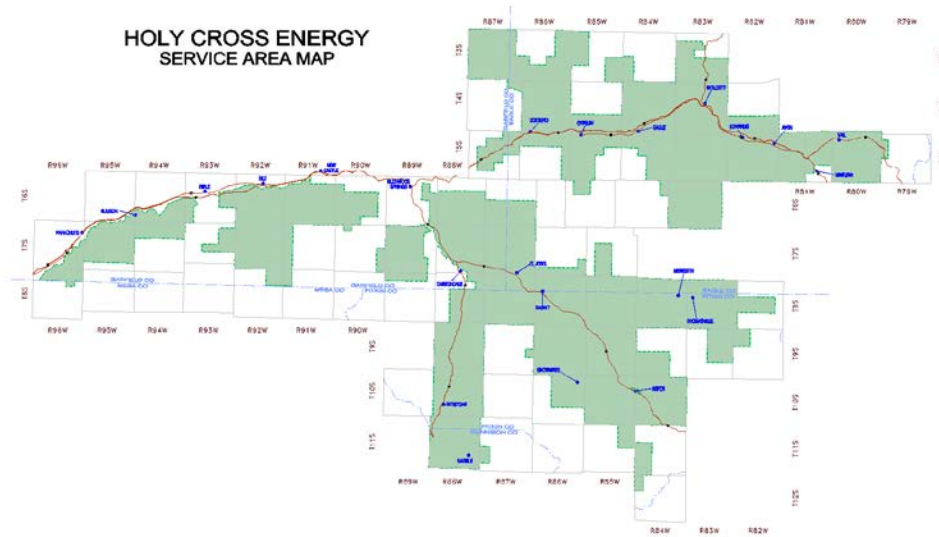
Average kWh Consumption

	Population	Sample	Difference
Average Monthly kWh per Member	912	880	3.5%

### 3 General Background

#### 3.1 Service Area

Holy Cross Energy (HCE), headquartered in Glenwood Springs, Colorado, is an electric distribution cooperative serving residential and business members in western portions of the state, including Eagle, Garfield, Gunnison, Mesa, and Pitkin counties.<sup>5</sup> HCE provides service to roughly 55,000 members and employs approximately 156 employees. HCE provides energy and services to major ski resorts located in the Aspen and Vail areas as well as farms, ranches and rural communities that provide people and resources for the tourist and outdoor recreation industries.



<sup>5</sup> HCE billing records contain permanent customer billing addresses in all 50 states and 18 countries.

## **4 HCE Planning Issues**

In continued efforts to collect member attitudes and opinions regarding key planning issues, the 2014 survey was conducted to develop information that is otherwise not available. The 2014 survey addresses issues regarding member attitudes and opinions on member services and cooperative management, communication options, power supply mix, and the cost for increasing HCE's renewable power supply resources. Similar surveys were conducted during 2003, 2007, 2009, and 2012. HCE continues to evaluate its power supply options for the future and has adopted a voluntary goal of getting 30% of our electricity from wind, hydro, solar, and other renewable sources by 2020 and 35% by 2025. The previous goal of 20% by 2015 was achieved in 2014.



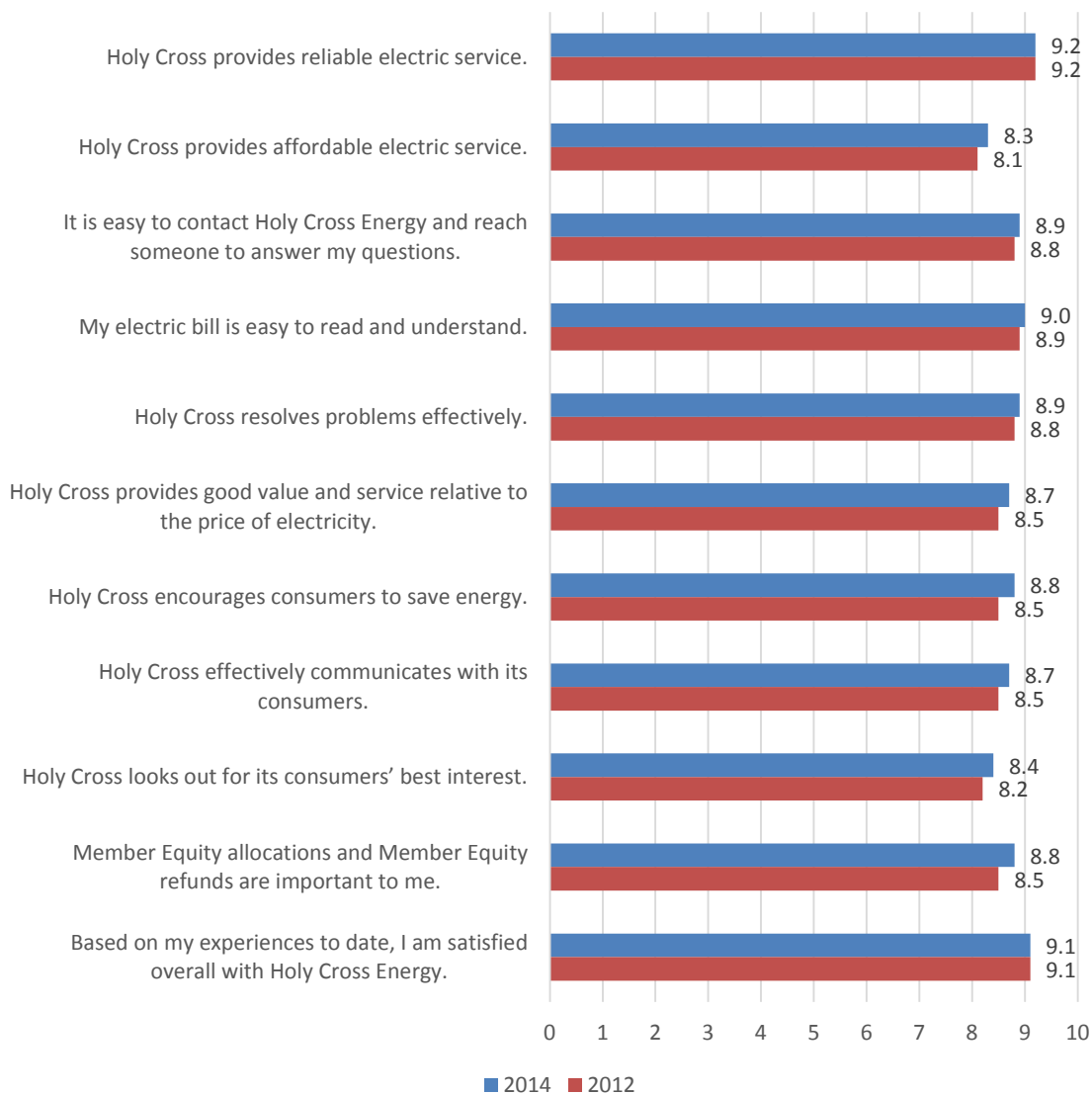
## 5 Survey Highlights

The survey was designed to collect specific information relating to HCE management and member services, power supply, and pricing for renewable energy. This section of the report summarizes findings at the aggregate level. More detailed data tabulations are presented in the Appendix, including a breakdown of results by county, years as an HCE member, and age of respondent. The survey questionnaire is also included in the Appendix.

### 5.1 Question 1: Holy Cross Energy Report Card

Members were asked to indicate their level of agreement on eleven statements regarding cooperative management and member service. Level of agreement was captured using a scale ranging from 1 to 10, with 1 representing "Disagree Very Strongly" and 10 representing "Agree Very Strongly."

Holy Cross Report Card



## Holy Cross Energy

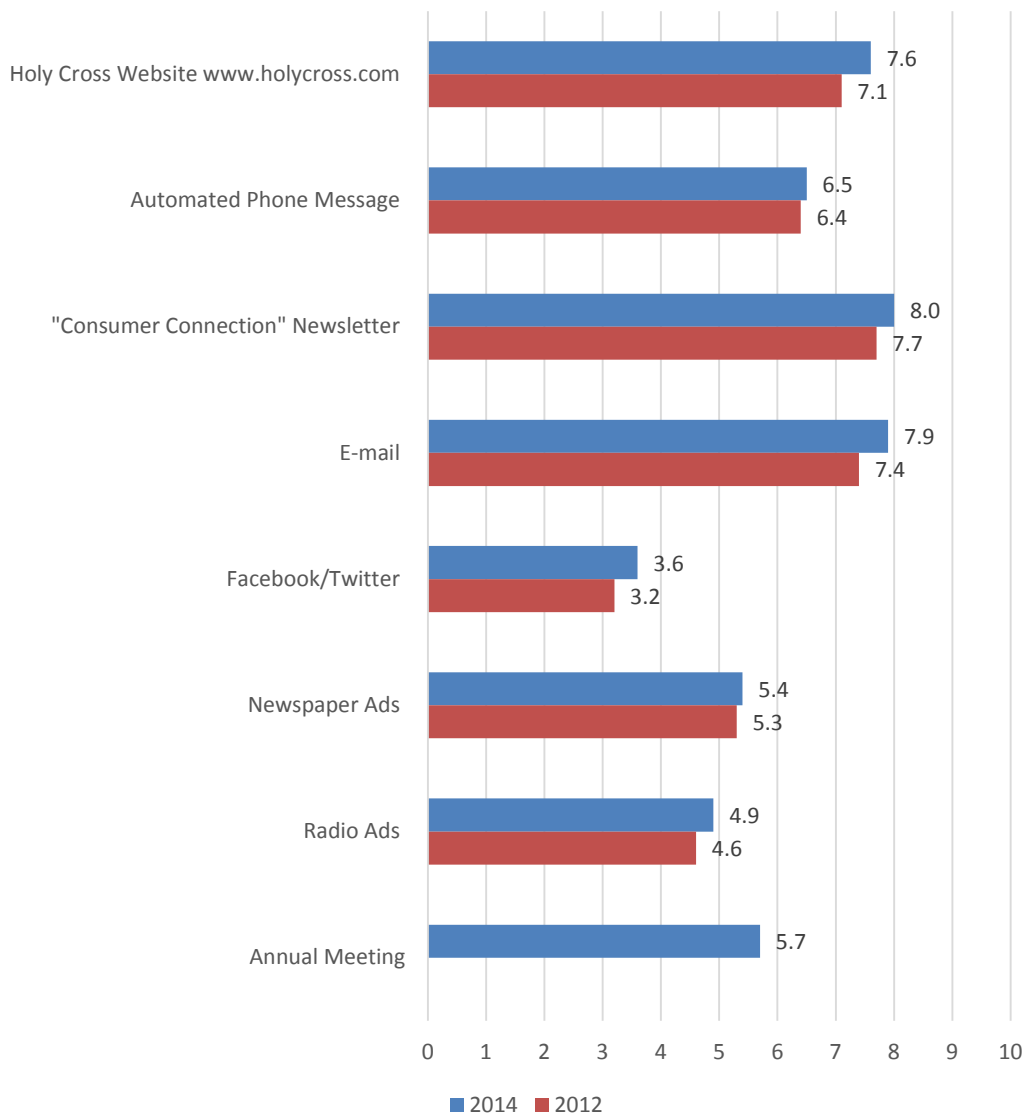
In the preceding bar chart, HCE scored highest in providing reliable electric service, at 9.2, and overall satisfaction with HCE, at 9.1. These scores are the same as in the 2012 survey.

There is little difference between the scores on the eleven topics with respect to county, years an HCE member, or age. Members in the 60 years of age or higher category provided significantly higher scores for the majority of topics addressed in this section than did members in all other groups. Refer to pages 1-11 of the Appendix.

### 5.2 Question 2: Member Services – Communications/Elections

Holy Cross Energy is evaluating communication tools used to share information. Members were asked to identify the level of effectiveness associated with nine communication alternatives. Level of effectiveness was captured using a scale ranging from 1 to 10, with 1 representing "Very Ineffective" and 10 representing "Very Effective."

#### Member Services – Communications/Elections

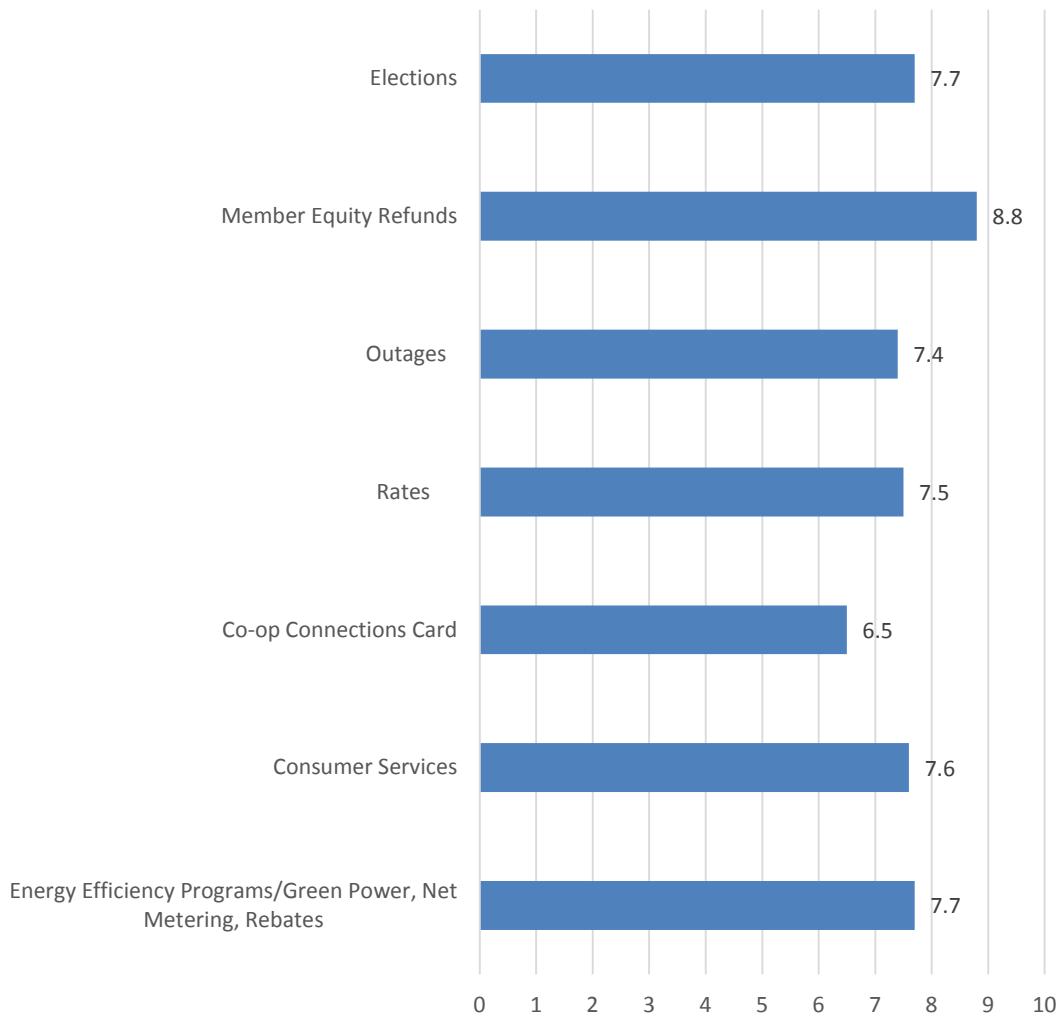


Announcements placed in the “Consumer Connection” newsletter, sent via e-mail, or posted on HCE’s website were the top three choices; however, their respective scores are relatively low compared to those corresponding to the questions addressing HCE management and member service. Facebook and Twitter appear to have very little appeal, particularly with members 60 years of age and older, with a score of only 2.8.

### 5.3 Question 3: Effectiveness of Current Communication/Outreach Efforts

On a scale of 1 to 10, HCE effectiveness of communication efforts regarding “Member Equity Refunds” scored noticeably higher than communication effectiveness for all other issues. Aside from “Co-op Connections Card,” which scored the lowest, scoring for the effectiveness of communication effort was essentially the same for all other issues.

Attitudes on Current Communication/Outreach Efforts



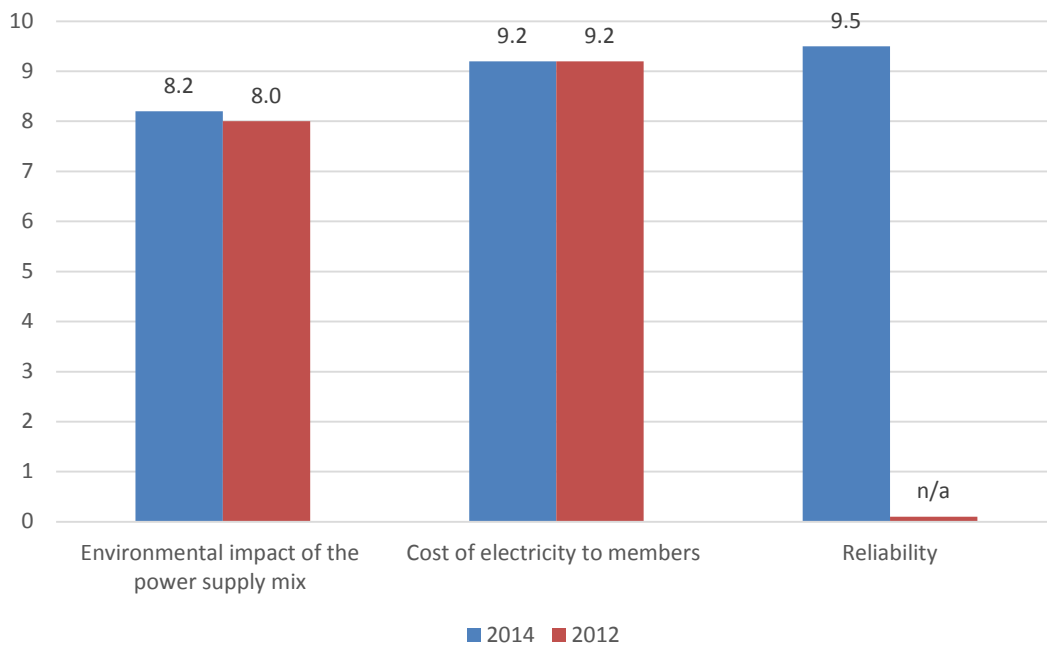
Members who have been an HCE member for over 15 years, and members who are 60 years of age or greater, scored HCE’s effectiveness of communication higher for all categories than did other members.

#### 5.4 Question 4: Ranking of Power Supply Considerations

Regarding key power supply considerations, and on a scale of 1 to 10, all three key factors ranked high among all members. Overall, members ranked reliability as the most important power supply issue, followed by cost of electricity and environmental impact.

Attitudes on power supply mix varied significantly across member groups. Members in Pitkin and Eagle counties ranked environmental impacts much higher than members in Garfield County. Likewise, members residing in the Aspen Urban Growth Boundary and members participating in the Renewable Premium Project ranked environmental impacts much higher than other members. At the aggregate level, reliability and cost of electricity significantly outweighed environmental impact; however, members residing in the Aspen Urban Growth Boundary and members participating in the Renewable Premium Project ranked environmental impacts higher than cost of electricity.

Ranking of Power Supply Considerations

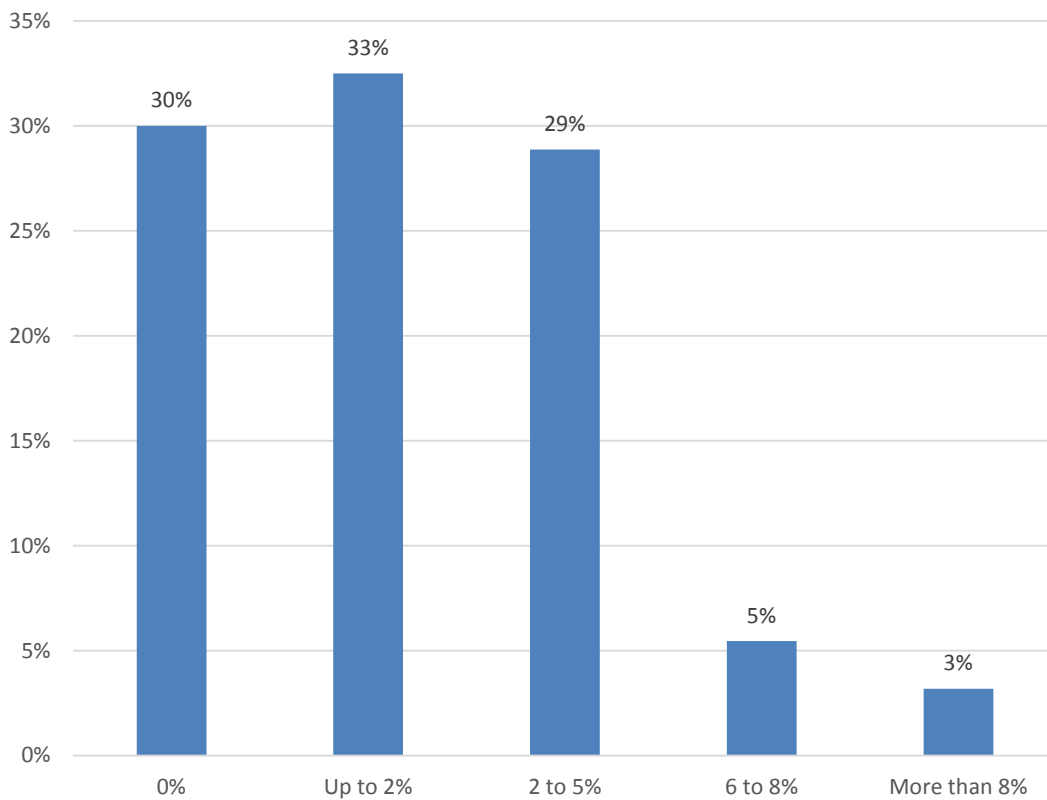


### 5.5 Question 5: Willingness to Pay Above Current Rates to Meet New Renewable Energy Goals

In 2014, Holy Cross Energy achieved its goal of 20% renewable energy in its power supply mix by 2015. HCE's Board of Directors set new goals of 30% renewable energy by 2020 and 35% by 2025. Members were asked how much they would be willing to pay, above current rates, to increase the use of renewable energy to meet HCE's new goals. At the aggregate level, 30% of all members are not willing to pay any amount above current rates to meet the new goals, while the remaining 70% would be willing to pay varying amounts in addition to existing rates.

Over 82% of members residing in the Aspen Urban Growth Boundary and 97% of members participating in the Renewable Premium Project indicated they would be willing to pay more to meet HCE's new renewable goals.

Amount Members Willing to Pay Above Current Rates to Meet Renewable Energy Goals

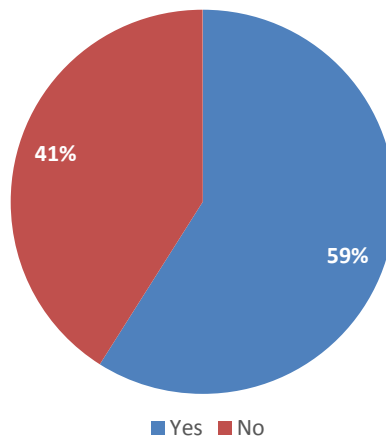


### 5.6 Question 6: Interest in Purchasing a Higher Percentage of Renewable Energy, Up to 100 Percent of Usage

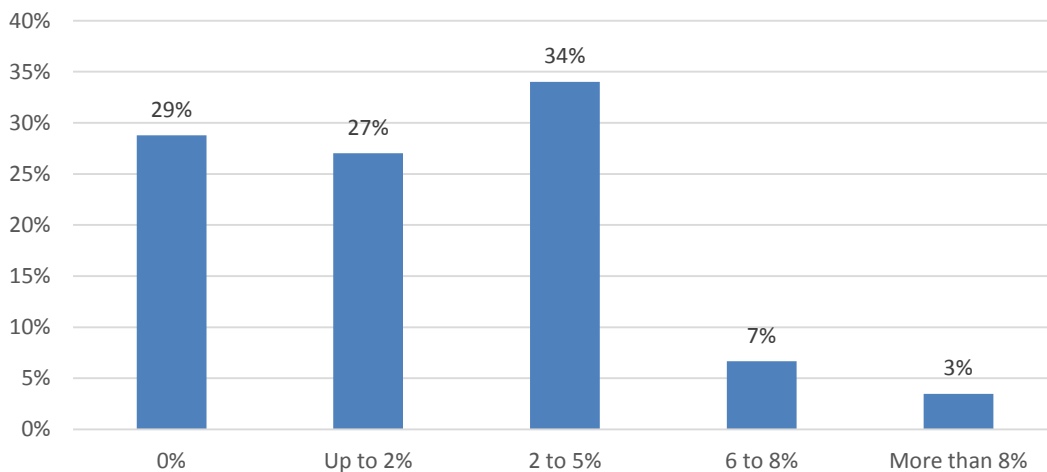
As of 2014, approximately 20% of HCE's power supply was obtained from renewable energy. HCE asked members if they would be interested in purchasing a higher percentage of renewable energy, up to 100% of their monthly consumption. Overall, 60% of all members expressed an interest, particularly members already participating in the Renewable Premium Program, members residing in Pitkin County, and members under 50 years of age.

For those members expressing an interest in personally purchasing a higher percentage of renewable resources, 70% indicated they were willing to pay more on their monthly bill to do so. The percentage willing to pay more increases to 80% for members under 50 years of age, 83% for members residing in the Aspen Urban Growth Boundary, and 92% for members participating in the Renewable Premium Program.

#### Interest in Increasing Percentage of Monthly Consumption Served through Renewable Energy



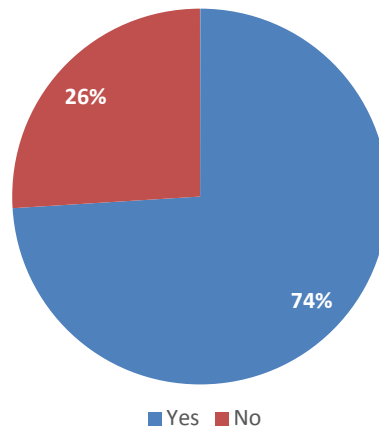
#### Amount Members Willing to Pay Above Current Rates to Increase Percentage of Usage Meet Renewable Energy Goals



### 5.7 Question 7: Energy Efficiency Upgrades in the Past Five Years

Nearly 74% of all members have made some type of energy efficiency upgrade within the past five years. The percentage is highest for members that have been an HCE member for over 15 years, members over 60 years of age, and members residing in the Aspen Urban Growth Boundary.

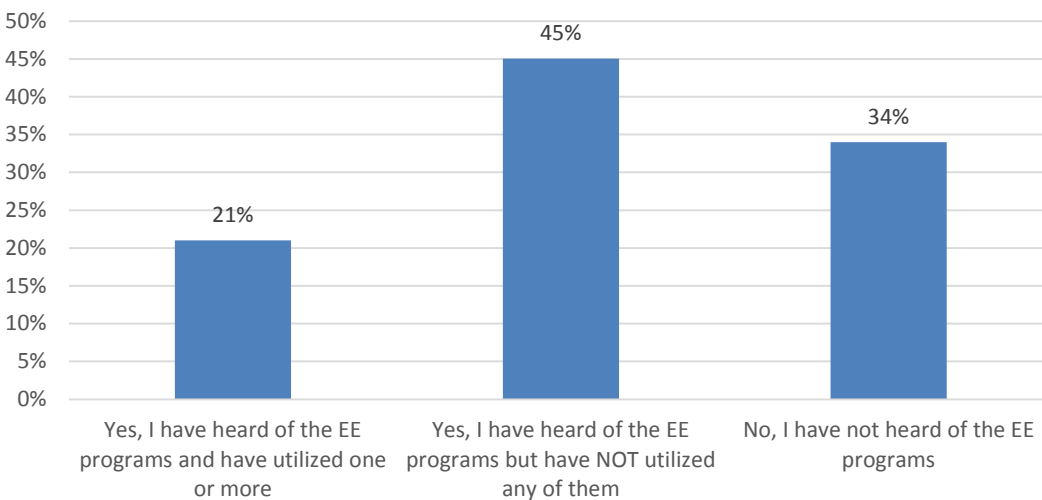
Have Made Energy Efficiency Upgrades within the Past Five Years



### 5.8 Question 8: Familiarity with HCE Energy Efficiency Programs, Including Rebates and Financing

Just over 66% of all members have heard about HCE's Energy Efficiency (EE) programs, including rebates and financing. Of this total, 21% have utilized one or more of the programs. Members with the highest level of awareness of the programs are those residing in Pitkin County, the Aspen Urban Growth Boundary, and members participating in the Renewable Premium Program. Likewise, members from these same groups have the highest percentages corresponding to participation in one or more of the programs.

Awareness of HCE Energy Efficiency Programs, Rebates, and Financing

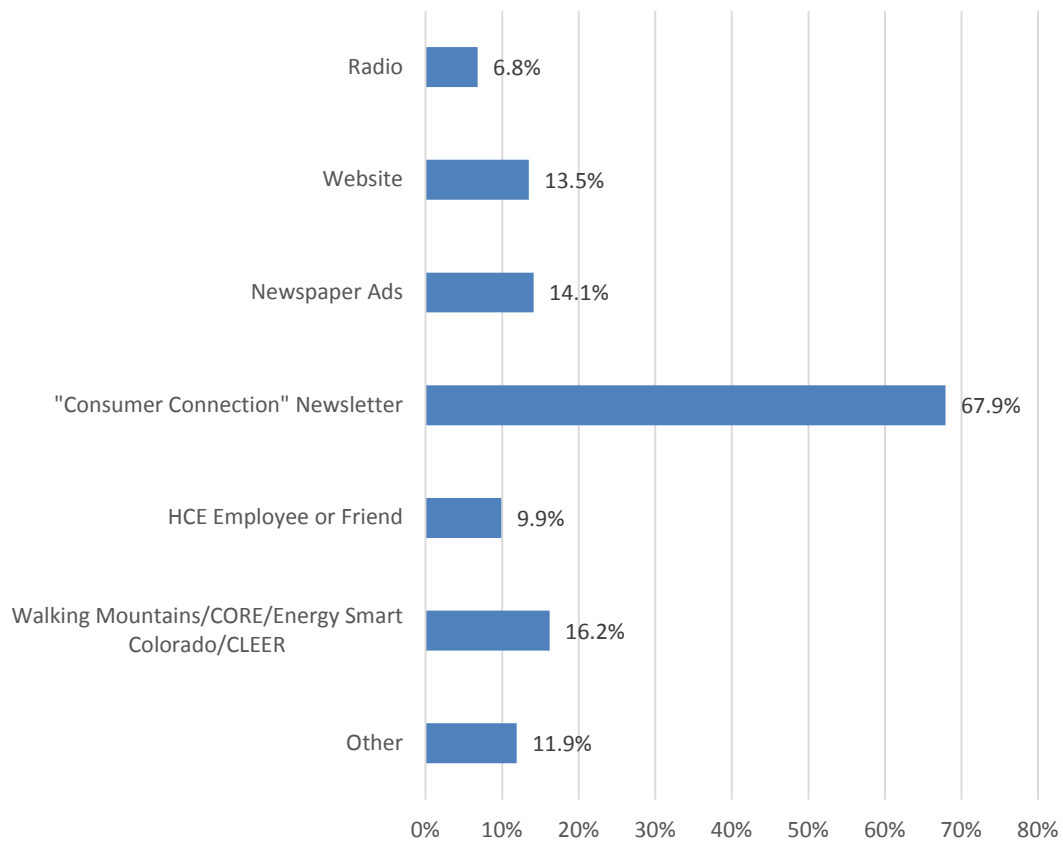


## Holy Cross Energy

For those members aware of HCE's energy efficiency programs, rebates, and financing, the Cooperative's "Consumer Connection Newsletter" is by far the most prevalent source for related information, particularly for members participating in the Renewable Premium Program. Readership of the newsletter increases as the age of the member increases.

Information made available by Walking Mountains/CORE/Energy Smart Colorado/CLEER is heard/read significantly more from members participating in the Renewable Premium Program than by other members. Awareness of HCE's programs through radio spots is significantly lower for members in the 60 and above age group than in the younger age categories.

### Mode of Awareness

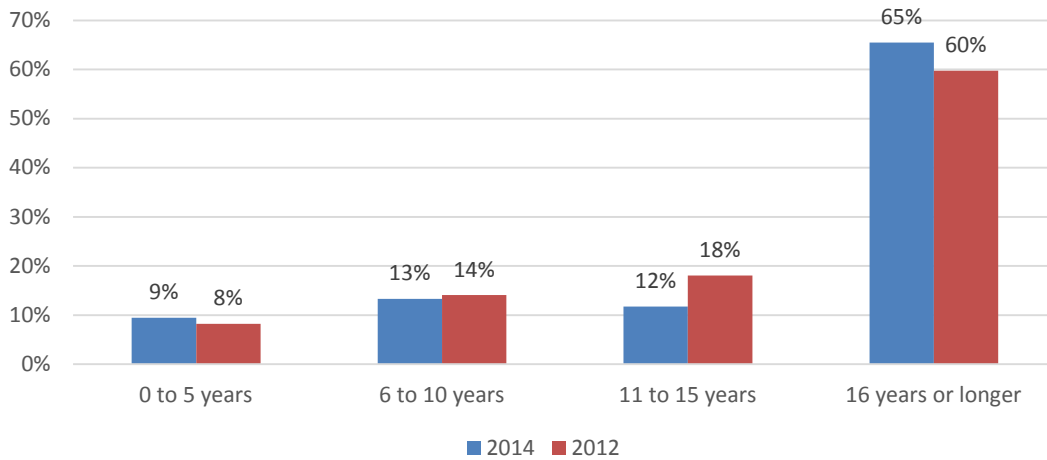




### 5.9 Question 9: Number of Years a Holy Cross Energy Consumer

The average for years of membership is 16.5 years, which is about the same as reported in the 2012 survey. As expected, the number of years as an HCE member increases with the age of respondent, from a low of 11 years for the 49 and under age group to a high of 18 for the 60 and above age group.

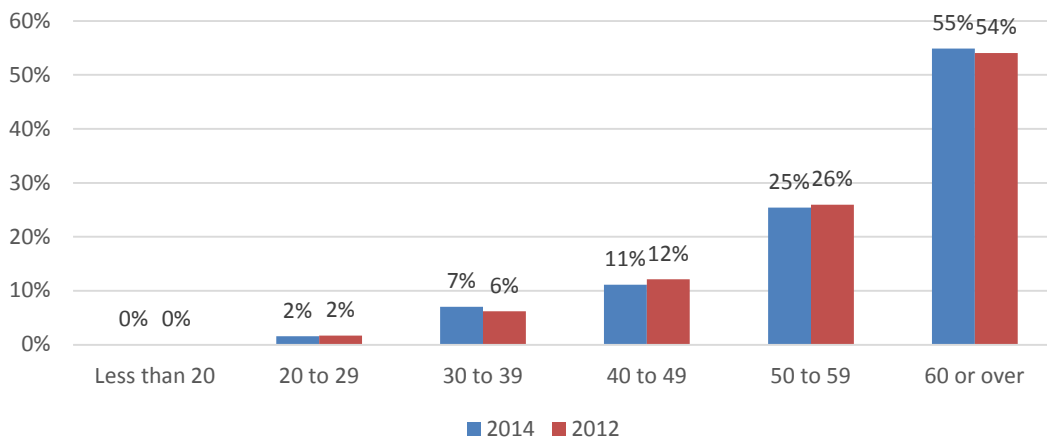
Number of Years a Holy Cross Energy Consumer



### 5.10 Question 10: Age of Respondent

The average age of respondents for the survey is 57, which is the same as reported in the 2012 survey. This is higher than the average age of the general population of people 20 years of age or older, estimated at 44, based on data obtained from the U.S. Census<sup>6</sup>.

Age of Respondent



<sup>6</sup> The average age of the general population is based on all persons 20 years of age and older, while average age of respondent typically corresponds to the age of the head of household and excludes younger persons residing in the dwelling; therefore, the difference between the two averages is expected.

## **6 Questionnaire Design**

The purpose of the survey was to determine member attitudes and opinions regarding a series of questions focusing on HCE management and member service, communications with members, power supply issues, and energy efficiency. Two categorical questions addressing years of HCE membership and respondent age were also asked in order to provide the means for analyzing results by category. The survey was designed to collect information needed for planning purposes, while at the same time, to limit the amount of time required by participants to complete the survey. The questionnaire also provided space for members to provide comments they wanted to bring to the attention of HCE management.

## 7 Sample Design

The survey was conducted through the mail and an online website. The combined mailing and online approach was selected over a telephone approach to minimize costs and because previous surveys were successfully completed by using the mail and online approach.

The survey was designed to collect attitudes and opinions of residential consumers. HCE is unique in that a significant portion of its residential consumer base is seasonal and has permanent residences outside the Cooperative's service territory. The sample was designed to represent only residential consumers residing in Eagle, Pitkin, and Garfield counties. The sample represents all residential consumers served on rate codes 1 through 29.

### 7.1 Population Frame

HCE's billing history for the 12 months ending June 2014 served as the population frame. The population frame was narrowed to local residents. Residential consumers take electric service on rate schedules 1 through 29. Local consumers are defined as those residing in Eagle, Garfield, and Pitkin counties and consuming electricity in the 12 consecutive months ending May 2014.

### 7.2 Sample Size

A sample size of 3,500 was selected to satisfy the desired precision level of 95% confidence with a ±5% margin of error. The sample size was determined using the equations presented below, which are appropriate when sampling for proportions.

$$n_0 = \frac{t^2 * pq}{d^2} \quad n = \frac{n_0}{1 + (n_0 - 1) / N}$$

where:  $n$  = sample size (including finite population correction)  
 $n_0$  = sample size (excluding finite population correction)  
 $t$  = t value of the desired confidence interval  
 $p$  = expected occurrence of the attributes  
 $q$  = (1 - p)  
 $d$  = desired level of precision (±) for the confidence interval  
 $N$  = population

The value of p was set to 50%, which produces the highest sample size possible given the desired confidence and level of precision parameters:

$$384 = \frac{(1.96^2) \times (.5)(1-.5)}{(.05)} \quad 381 = \frac{384}{1.0077}$$

### **7.3 Sample Selection**

Response rates have ranged from 13 to 17% in the previous surveys<sup>7</sup>. Given the relatively low expected response rate, and the desire to increase precision for sub-populations, a sample of 3,500 members was selected. A systematic sampling methodology was employed. All accounts were sorted in ascending order on location and average kWh usage (12 month period). Once sorted, every  $i^{\text{th}}$  account was selected beginning with a randomly selected seed value. The value of  $i$  was dependent upon the total number of qualified accounts in the population. In calculating  $i$ , the total qualified population was divided by the desired sample size. The quotient was rounded down to the nearest whole number to ensure the sample included the required number of accounts.

### **7.4 Sample Validation**

3,500 questionnaires were mailed to sample members in Pitkin, Eagle, and Garfield counties. A total of 452 responses were collected (158 online and 294 by mail) from the survey, resulting in a response rate of 13%.

### **7.5 Survey Administration**

GDS designed the survey project, assisted HCE in developing the questionnaire, selected the member sample, designed the web based survey tool, tabulated the data, conducted the analysis, and prepared the final report. GDS contracted The Meyer's Group to publish the questionnaire, mail the post card announcements and questionnaires, scan the returned questionnaires, and provide GDS a database containing the raw survey responses.

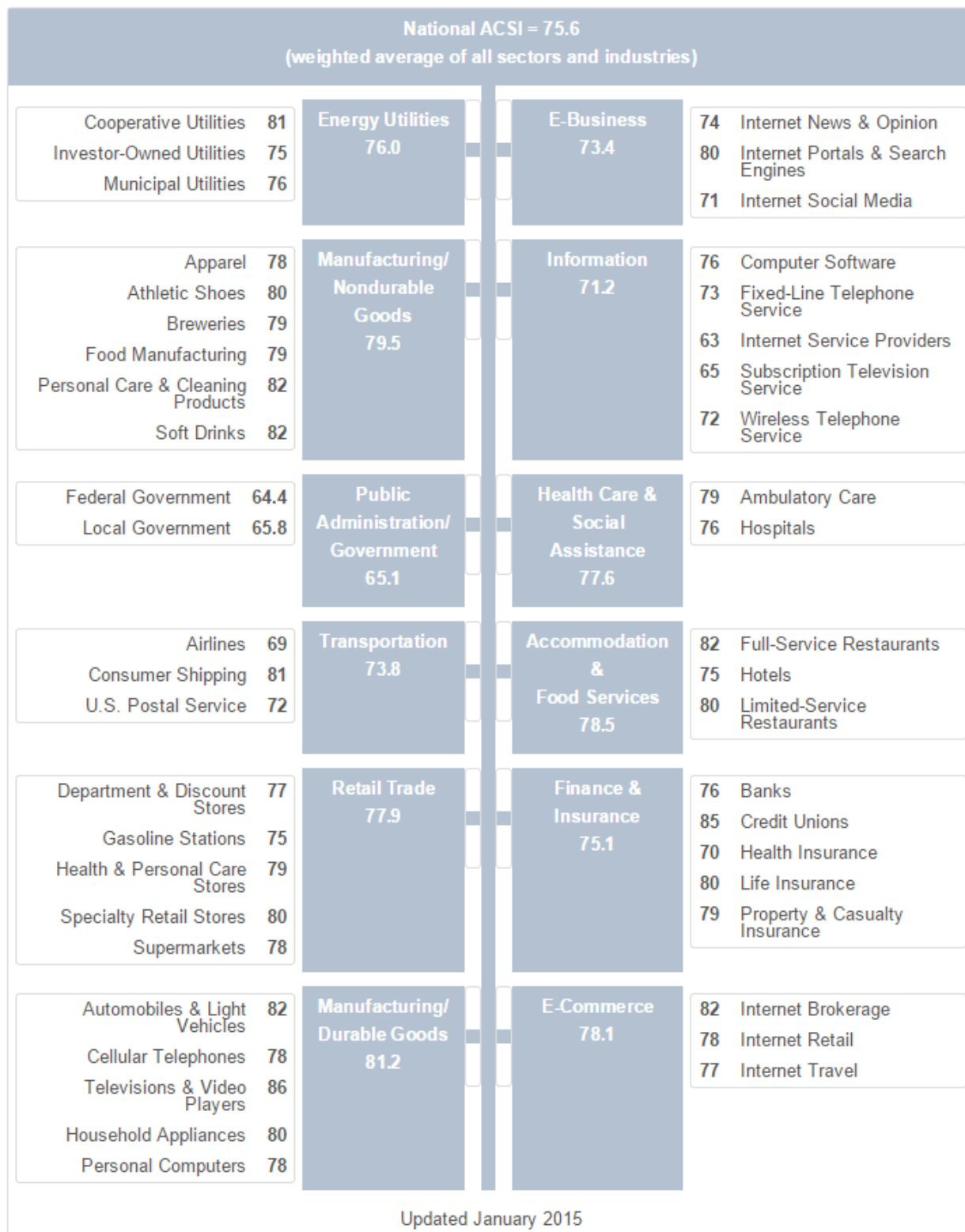
### **7.6 Level of Precision**

The desired level of precision was  $\pm 5\%$  at the 95% confidence level. Based on 452 responses, the desired level of precision was achieved ( $\pm 5.0\%$  at the 95% confidence level). At precision of  $\pm 5\%$  at the 95% confidence level, given a point estimate for a particular question of 52%, the inferred true population value falls within the range of 47 to 57% ( $52.0\% \pm 5.0\%$ ).

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<sup>7</sup> 2007, 2009, and 2012 Customer Surveys

**Appendix A**  
**American Customer Satisfaction Index**



Source: American Consumer Satisfaction Index, January 2015  
<http://www.theacsi.org/national-economic-indicator/national-sector-and-industry-results>