2015-2016 NATIONAL SURVEY

ON THE COOPERATIVE DIFFERENCE

Touchstone Energy®
Cooperatives

Touchstone Energy® Cooperatives

2015-2016 NATIONAL SURVEY

ON THE COOPERATIVE DIFFERENCE

Prepared by:

TSE Services

Your Touchstone Energy® Partner

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AT A GLANCE

What is this report?

- Critique of our performance as service providers
- Road map to higher levels of member satisfaction and engagement
- Sounding board for members of electric cooperatives
- Exploration of ways to add value to the service we provide
- Assessment of our members' use of technology

What will I find inside?

- Cooperative ratings on a variety of service and image attributes
- Drivers of member satisfaction and engagement
- Member assessment of cooperative's role as a 'trusted energy advisor'
- Insight into the member interest in on-site and community solar leases
- Member value associated with online portals and smart thermostats
- Member use of mobile computing and telecommunication channels

Who should read this report?

- Senior executives and board directors
- Communications, member services and marketing professionals
- Operations and engineering professionals
- Any key stakeholder dealing with cooperative members

How can my cooperative use this report?

- Refine marketing and communication strategies
- Establish strategic direction
- Prioritize opportunities to improve satisfaction and member engagement scores
- Assess potential for leveraging mobile technology as a communication channel
- Identify motivators for interest in renewable energy
- Evaluate development priorities for online portals and smart thermostat offerings

Member Satisfaction

Cooperatives provide superior levels of service to residential members, achieving industry leading scores in the American Customer Satisfaction Index (ACSI) and exemplary ratings for core service elements such as reliability, outage response and problem resolution. Significant opportunities exist to better communicate the value we add as cooperative energy suppliers, particularly with younger members.

Member Identity and Engagement

Performing well in our core service areas allows us to engage members in an ongoing dialogue about the 'cooperative difference.' Focusing this conversation on our goal to provide energy at the lowest possible cost, efforts to mitigate rising energy costs, community engagement activities and how we help members manage their energy costs will drive members to higher levels of satisfaction and engagement.

Community Engagement

Our efforts to improve the quality of life in our communities, particularly in areas related to crisis preparedness and response, supporting fire and rescue, energy efficiency, economic development and advocating for affordable energy demonstrate the value of membership and help build satisfaction and engagement with our members.

Trusted Energy Advisor

Cooperatives are the 'go-to' source for information about how to save energy in the home or renewable energy. However, members are also very likely to utilize the internet when they have questions. As such, it is critical that cooperatives invest in their online presence to ensure that when members go to the internet for answers, they find objective and reliable advice from their cooperative.

Renewable Energy

There is significant interest in on-site solar leases and community solar projects. The primary motivation in both cases appears to be driven by an interest to lower their electric bills. However, members are also likely to be driven by an interest in protecting the environment, particularly those interested in community solar projects. Members interested in both community solar and on-site solar appear to favor on-site systems where feasible.

Value-Added Services

Online portals and smart thermostats generate high levels of interest among the membership. When evaluating the features of these tools, diagnosing when equipment needs maintenance or when increases in electricity usage cannot be explained by the weather appear to have the greatest value.

Internet and Smartphones

Members readily embrace new technology, allowing them to stay connected at home or on the go. Accelerated adoption of smartphones and tablets open significant new communication channels for cooperatives. Cooperatives should leverage these new channels to reach members while continuing to employ traditional media. Members are very likely to have wireless networks in their home, providing ready access to web enabled smart thermostats.

RECOMMENDATIONS

Engage members in a dialogue about the issues and challenges that lay ahead for electric cooperatives and the electric utility industry. An informed member will be more receptive to change.

Communicate efforts of cost containment by speaking specifically to actions your cooperative has taken to mitigate rising costs while reiterating our goal to provide energy at the lowest possible cost.

Leverage capital credits as an effective communication opportunity. Distribute capital credits to as broad a cross section of active members as possible, and send them a check wherever feasible. Focus communications on your low cost goal, efforts to mitigate rising energy costs and energy efficiency.

Align community engagement activities to focus on elements most important to members such as crisis preparedness and response, supporting fire and rescue, energy efficiency, advocating for affordable energy, economic development and supporting education and local schools.

Provide balanced and objective advice to members with questions about energy efficiency or renewable energy. Increase your online presence with digital ad strategies so members find you when they turn to the internet for advice and information. Continue to build on the cooperative's reputation as members' trusted energy advisor.

Develop and promote proactive energy efficiency initiatives such as on-bill financing for energy efficiency, online portals and smart thermostats. Mine data from automated metering infrastructure to proactively notify members when increases in their use cannot be explained by the weather.

Consider offering community solar and on-site solar leases to meet a growing desire among the membership to consider renewable energy.

Utilize diverse channels to communicate your messages to reach an increasingly segmented membership. Supplement traditional newsletters, bill inserts and statewide magazines with online tools such as Facebook, Twitter, cooperative websites, digital ad placement, email and mobile applications.

Integrate strategic communication efforts with national and regional initiatives to fully leverage the cumulative impact of a coordinated and consistent campaign.

Touchstone Energy® Cooperatives

2015-2016 Cooperative Difference Survey

INTRODUCTION

For more than a decade, Touchstone Energy Cooperatives has helped fund an annual exploration of member opinions to better understand the actions and messages that define the 'cooperative difference.' This research provides cooperatives with actionable strategic insight to connect more effectively with members to improve their satisfaction and build member engagement.

These research efforts identify key drivers of satisfaction and member engagement and show us our greatest opportunities to improve. Our findings indicate that once we earn our members trust and confidence by demonstrating our competence in delivering reliable electric supply and superior member service, we can open a proactive and ongoing dialogue that helps them recognize the 'cooperative difference' and builds their level of engagement with their cooperative.

2015-2016 Project Overview

The 2015-2016 study assesses member impressions on core services provided by the cooperative, the image it portrays and the level of involvement in key community service activities. We also take a close look at the cooperative's role as a trusted energy advisor.

Several 'value-added' services programs were presented to members to determine interest levels, assess the features of most value and explore what would motivate them to participate. Services include community solar and on-site solar leases, online portals for energy information and smart thermostats for improved energy efficiency and demand-response programs.

To provide nuance and insight into these issues, this year's effort includes a qualitative exploration of member perceptions in several key areas:

- Why the cooperative does or does not provide good advice on energy-related matters
- Whether or not the cooperative is committed to using renewable energy resources
- Why members would prefer one type of solar energy over another
- Member attitudes towards demand response programs associated with smart thermostats

Members were asked to explain their perceptions in these areas in their own voice. While categorization of their responses helps identify key themes, verbatim transcripts provide important nuance and insight into their perceptions.

The study continues to track member adoption of technology and measure the demographic characteristics of cooperative members.

METHODOLOGY

The *2015-2016 National Survey on the Cooperative Difference* was fielded between November 2015 and April 2016. The study included 58 cooperatives across 26 states with representation from each NRECA region across the country.

Joining the eight cooperatives participating in Touchstone Energy's national sample were 23 cooperatives from North Carolina and 27 independent cooperatives from around the country. Each of these cooperatives fielded nearly identical surveys and contributed their data to the national report.

This effort resulted in nearly 14,500 total interviews among cooperative residential members across the nation. This was one of the largest national samples fielded since the inception of the National Survey on the Cooperative Difference in 2004.

Adding to the geographic diversity of the sample, cooperative participants ranged from small, rural cooperatives with fewer than 4,000 members to some of the largest cooperatives in the country. The average membership size was 42,000 while the median size was 31,000.

Interviews were conducted by telephone from a demographically representative sample of each cooperative's residential membership. Participating cooperatives were identified as the sponsor of the research and samples were drawn directly from their member rolls.

Each sample was stratified to ensure it reflected the overall residential membership of the cooperative. To accomplish this, age-based quotas for each cooperative sample were established to reflect the expected distribution of the age of head-of-householder for the entire membership.

The sampling error associated with the survey is approximately +/- 1 percent at the 95 percent confidence level. Stated another way, were we to field 100 random samples of equivalent size, 95 of those samples would return results that are within plus or minus 1 percent of those presented here. Where data from subsets of the overall sample are shown, confidence intervals will vary.

AMERICAN CUSTOMER SATISFACTION INDEX

By independent and objective measure, electric cooperatives lead the utility industry with high levels of customer satisfaction.

Cooperative members are very satisfied with the overall performance of their local electric provider, comparing favorably to all other utility service organizations monitored by the ***American Customer Satisfaction Index*** (ACSI), a joint effort by the University of Michigan Business School and the international consulting firm, CFI Group.

Satisfaction scores and retention scores from the ACSI are available on theacsi.org and shown below for the cooperative samples and for national benchmark groups for the utility industry for the first quarter of 2016.

ACSI Satisfaction & Retention Scores

2015-2016 Cooperative Difference Survey

ACSI	American Customer Satisfaction Index	
Utility Sector Comparisons	Satisfaction	Retention
Cooperative Difference Survey Benchmark	82	79
Touchstone Energy Cooperatives Nationally	77	76
Other Electric Cooperatives	72	-
Top Investor Owned Utility	77	79
Top Municipal Utility	77	79
Municipal Utility Sector Nationally	68	-
Investor Owned Utility Sector Nationally	72	73

* 1st Quarter 2016, ACSI Scores

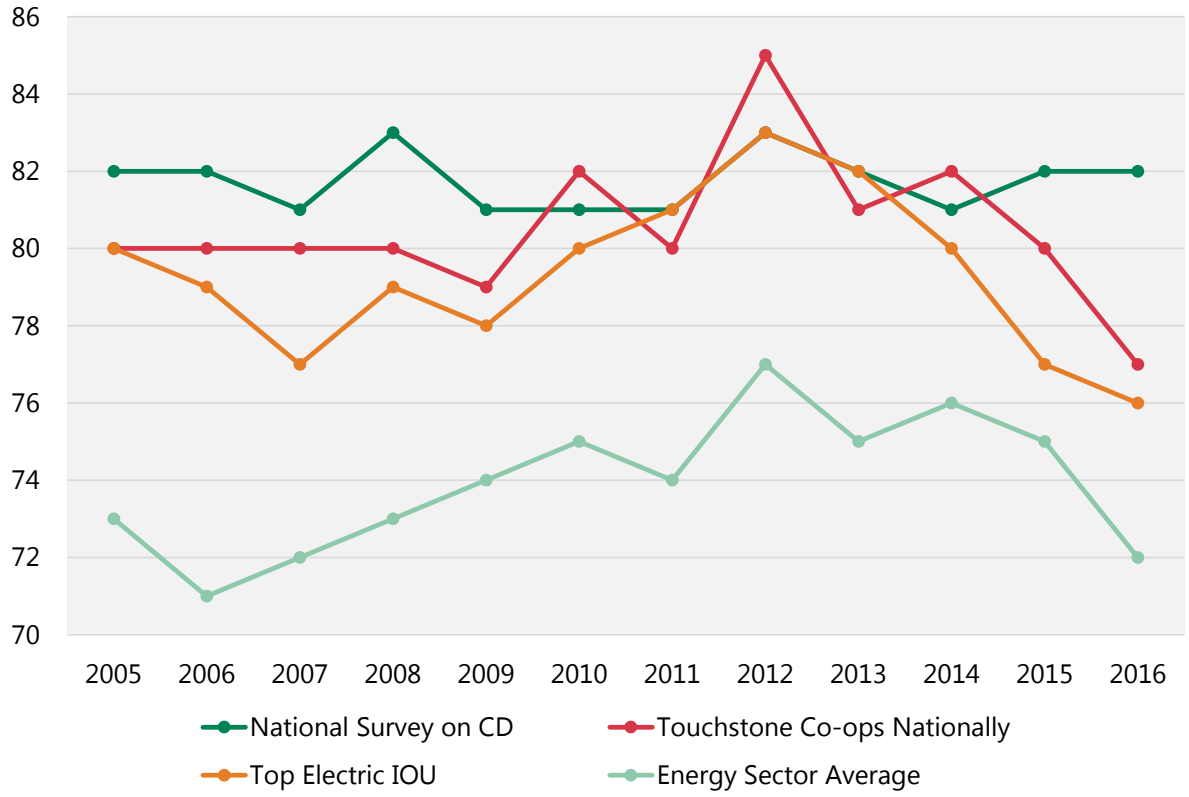
Satisfaction scores for the Cooperative Difference Survey group exceed the scores for Touchstone Energy Cooperatives nationally, electric co-ops who are not members of Touchstone Energy and the top-rated investor-owned utility (NextEra Energy) by a statistically significant margin.

Both Touchstone Energy Cooperatives' national scores and those for the Cooperative Difference Survey group exceed aggregate scores for municipal utilities and investor-owned utilities by a wide margin.

The following chart shows the trends in ACSI utility industry benchmarks over time.

Historical ACSI Scores

2005-2016 Cooperative Difference Survey



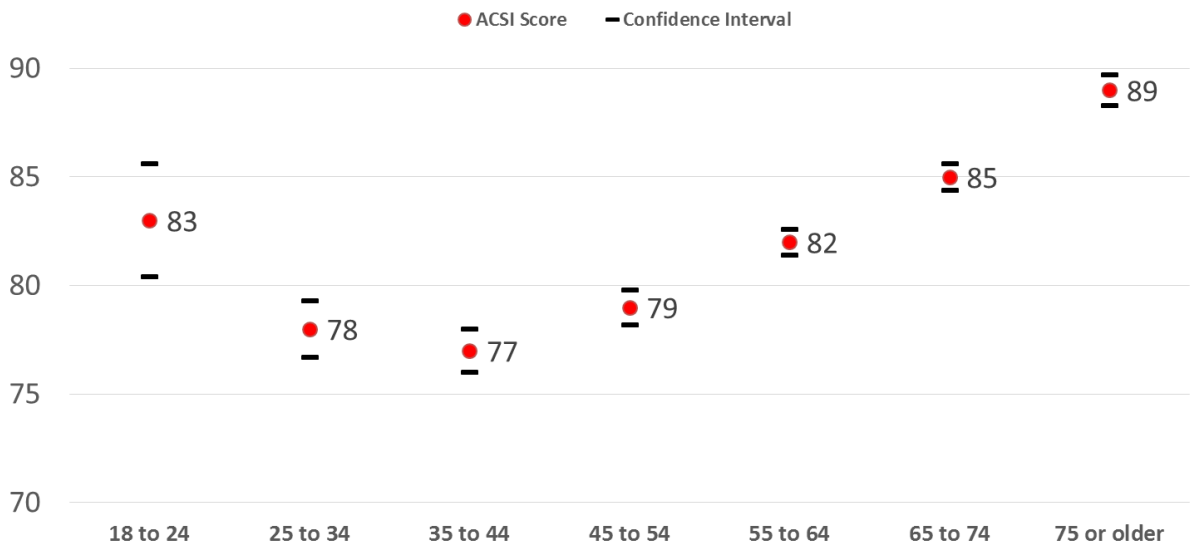
The data show the Cooperative Difference Survey group scores have remained relatively stable from year to year while those for the Touchstone Energy national sample have demonstrated some volatility, which can be partially attributed to the relatively small sample size (250 versus 14,400) compared to the Cooperative Difference Survey effort.

The average score for the energy sector had risen from a low of 71 in 2006 to a high of 77 in 2012, which according to the ACSI, was driven largely by the drop in the price of natural gas. Since that zenith, the energy sector overall has been in decline, with aggregate scores back to levels seen in the prior decade. Both Touchstone Energy and the Cooperative Difference samples have consistently outpaced the utility industry average by a statistically significant margin and compare favorably to the top-rated investor-owned utility in the nation. Comparing the energy sector average to the score for Touchstone Energy cooperatives nationally highlights a significant cooperative advantage.

As we have found in prior Cooperative Difference Survey efforts, satisfaction levels vary significantly by the age, income and education level of the respondent. In the following chart, we show the overall ACSI index for six age groups from the national sample. (Note: the horizontal bars above and below the mean score show statistical precision at a 95 percent confidence level.)

American Customer Satisfaction Index Scores by Age

2015-2016 Cooperative Difference Survey



The data show members between the ages of 25 and 54 provide lower ACSI ratings than both younger and older members. Each successive age cohort above age 54 shows significantly higher satisfaction.

The score for seniors ages 65-74 exceed their younger cohort by three points and the score for 35-44 year olds by eight points. Satisfaction scores for the oldest age group (75+) exceed those of the lowest group (35-44) by twelve points.

The lowest satisfaction scores were provided by members between 25 and 54 years of age. Satisfaction among this age group was lower than all older age cohorts by a statistically significant margin.

Our analysis shows that long tenure positively affects satisfaction. Since age is highly correlated with tenure, we further explore the link by looking at these effects in combination. This analysis shows that older members with short tenure express higher satisfaction than younger members with long tenure. We conclude therefore that while tenure helps, age is the overriding influence.

Overall satisfaction varies significantly by a host of other household characteristics:

- Satisfaction is inversely related to the size of the monthly electric bill. Members with the lowest monthly bills have the highest satisfaction. Members indicating average monthly bills in excess of $200 become progressively less satisfied as their bill size escalates.
- Empty-nesters and households without children report significantly higher satisfaction levels with the cooperative than households with children present. Members with children are likely to have higher energy use, are younger, have shorter tenure with the cooperative and may be under greater financial stress, all of which contribute to lower scores.
- Retired members are the most satisfied and express significantly higher opinions of the cooperative than currently employed members.
- As the size of the household grows, satisfaction with their electric cooperative falls. One or two person households express the highest satisfaction. For each additional person added to a household, the level of satisfaction drops.
- Higher income households express lower levels of satisfaction with their electric cooperative than members in the lower income groups.
- Senior members are the most satisfied across all income categories.
- Overall, women are significantly more satisfied with their electric cooperative than men. The highest member satisfaction ratings are provided by women over 75 years old. The lowest satisfaction ratings are provided by middle-aged men between the ages of 35-44.
- Members with long tenures with their cooperative also express significantly higher satisfaction ratings. The highest satisfaction ratings come from members with 20 or more years with their electric cooperative. The newest members express higher satisfaction than members with between five and 20 years of experience with the cooperative.
- Members whose homes are more than 20 years old are the most satisfied while members living in homes between the ages of five and 10 years old are the least satisfied.
- The type of dwelling structure (single family, apartment, mobile home, etc.) does not appear to have a significant impact on member satisfaction.

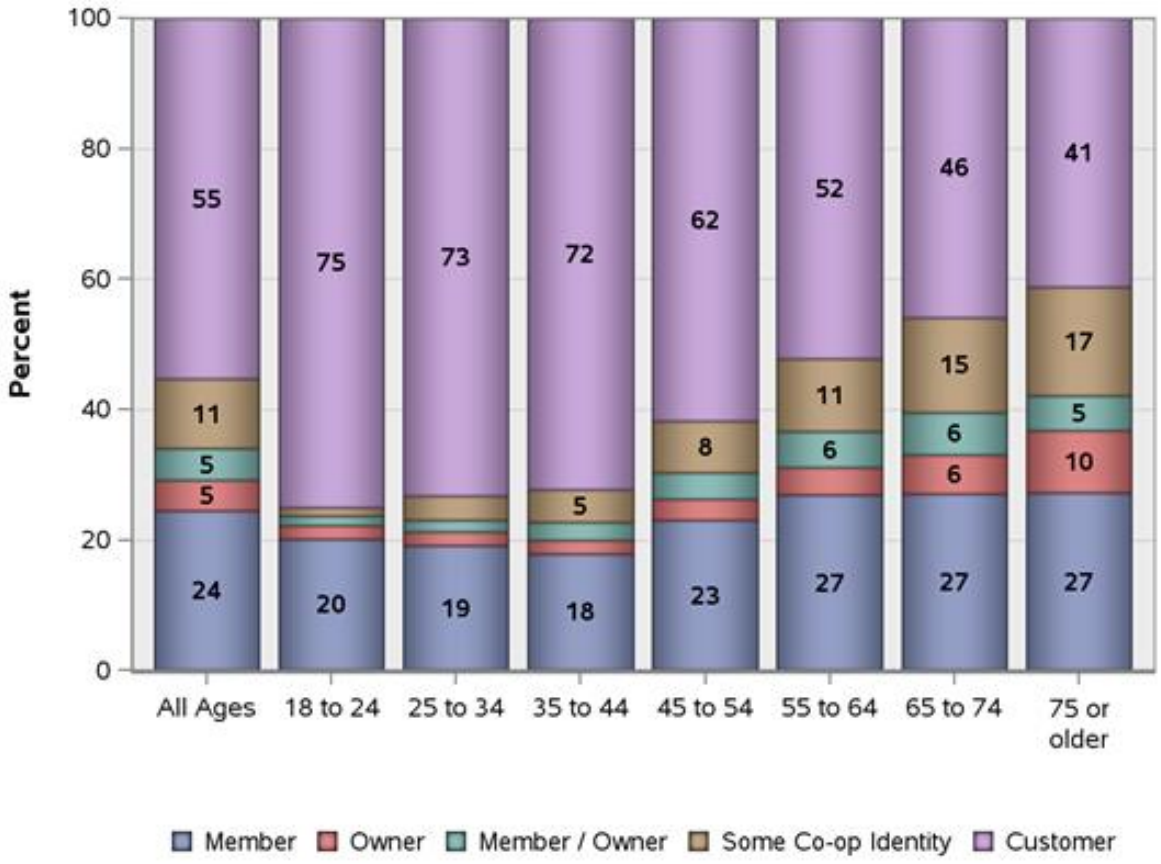
MEMBER IDENTITY

The 'cooperative difference' means more to some members than others. The majority of consumers lack 'member' or 'owner' identity with their electric cooperative. The vast majority of young members view themselves as customers. Senior members are the only group where the majority identify themselves as a 'member' or 'owner' of the co-op.

One measure of our success in engaging members is how they identify their relationship with the cooperative. We asked members if they view themselves as members, owners or customers of their cooperative. The following chart shows how our members define their relationship:

Are you a Member, Owner or Customer?

2015-2016 Cooperative Difference Survey



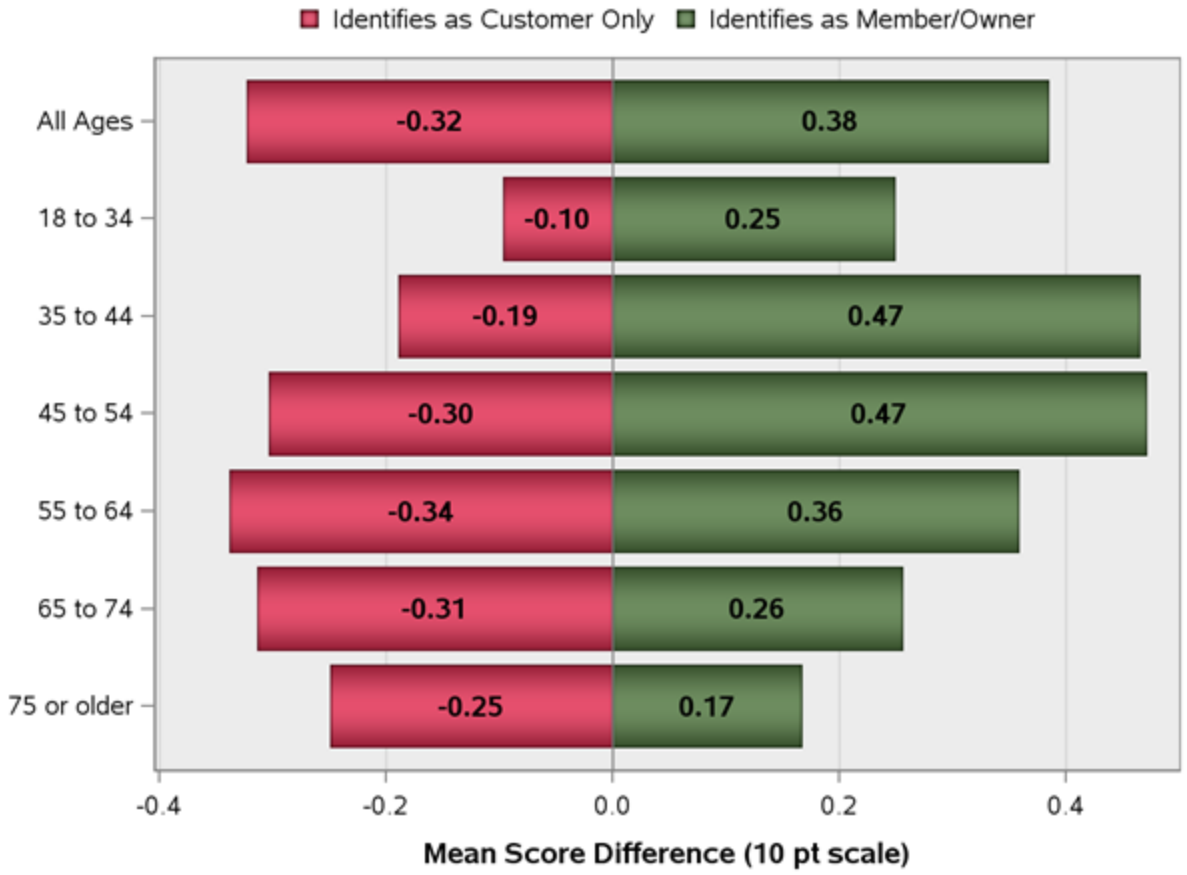
Senior members express the highest member and owner identity. More than half of respondents 65 and older indicated some level of connection with the cooperative (member, owner or both). The opposite is true for younger age groups where nearly three-quarters limit their relationship with the cooperative to being a 'customer.'

Looking at member identity and satisfaction, we find that any connection to the cooperative beyond being a 'customer' improves satisfaction levels. In fact, those who limit their relationship to 'customer' rate their satisfaction with the cooperative significantly lower than members who acknowledge some level of member or owner identity.

As the following chart indicates, the satisfaction gap between 'member' and 'customer' is significant across all age categories. The chart is constructed by setting the origin of the chart (0.00) at the aggregate satisfaction score for all members within each age category. Differences in overall satisfaction levels from this aggregate score are then calculated for those who identify as being a member or owner and those who lack member or owner identity.

Dividend from Cooperative Identity

Difference in Overall Satisfaction Score by Age
2015-2016 Cooperative Difference Survey



Communicating the benefits of being a member or owner clearly has its benefits, especially with younger members. The data show the largest dividend in the 45 to 54 year old age group, where nearly eight-tenths of a point (on a 10-point scale) separates 'member/owners' from 'customers.' The youngest and oldest member categories show the smallest dividend, at just under four-tenths of a point separating 'member/owners' from 'customers.'

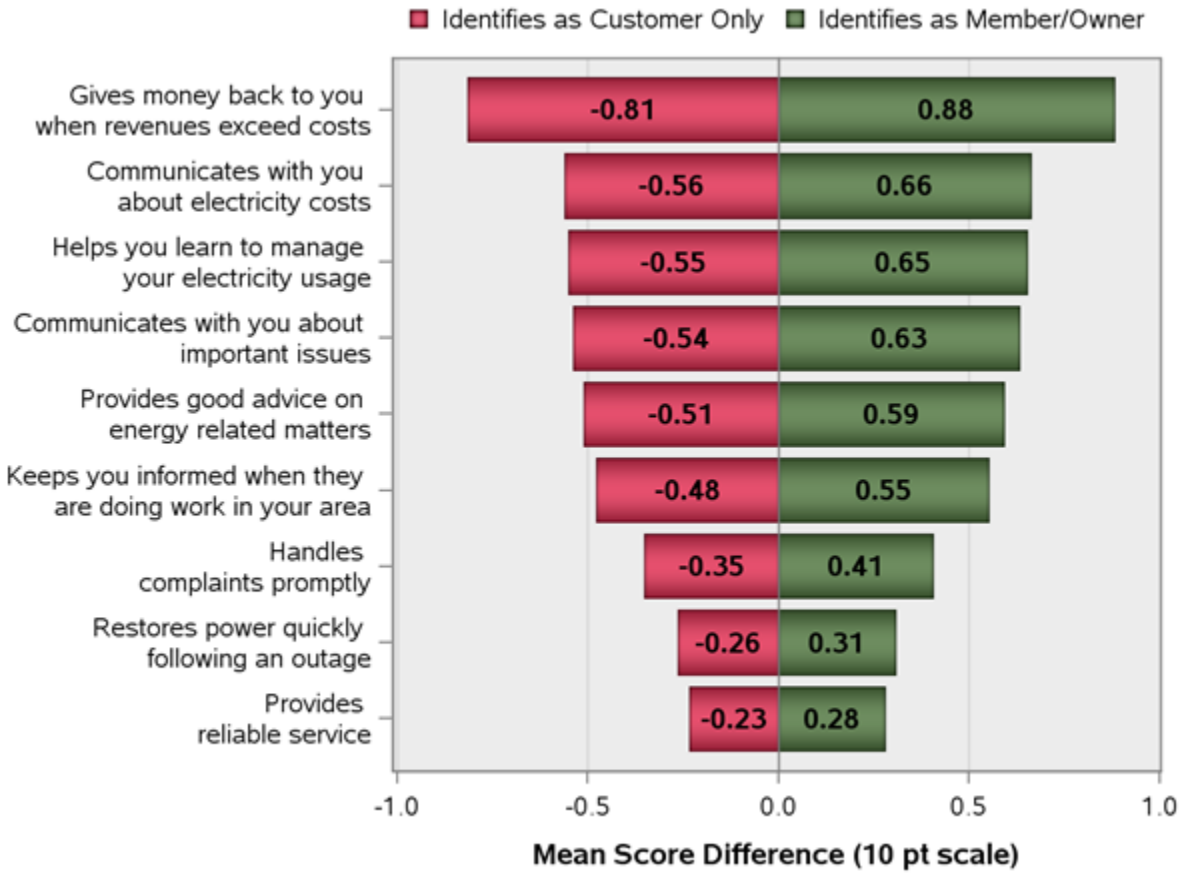
Members who associate their relationship with the cooperative as a 'member/owner' provide significantly higher performance ratings in all areas tested. The area with the greatest gap between members and customers is in capital credits. 'Member' scores in this area exceed 'customer' scores by nearly two points on the 10-point scale.

In fact, the areas that show the largest gap between 'members/owners' and 'customers' all speak directly to the 'cooperative difference.' The widest gaps include:

- Gives money back when revenues exceed costs
- Communicates with you about rising electricity costs
- Helps you learn to manage your energy use
- Communicates with you about important issues
- Provides good advice on energy related matters

Dividend from Cooperative Identity

Difference in Service Attributes



When it comes to the cooperative's image, the largest gap between 'member/owner' and 'customer' also speak to the 'cooperative difference.' The widest gaps include:

- Looks out for your best interests
- Is doing more to control rising prices
- Has a goal of low cost

Dividend from Cooperative Identity

Difference in Image Attributes

When it comes to understanding how the cooperative engages in its local community, the gaps between 'members/owners' and 'customers' approaches a full point (on a ten-point scale) across the board:

Dividend from Cooperative Identity

Difference in Community Attributes

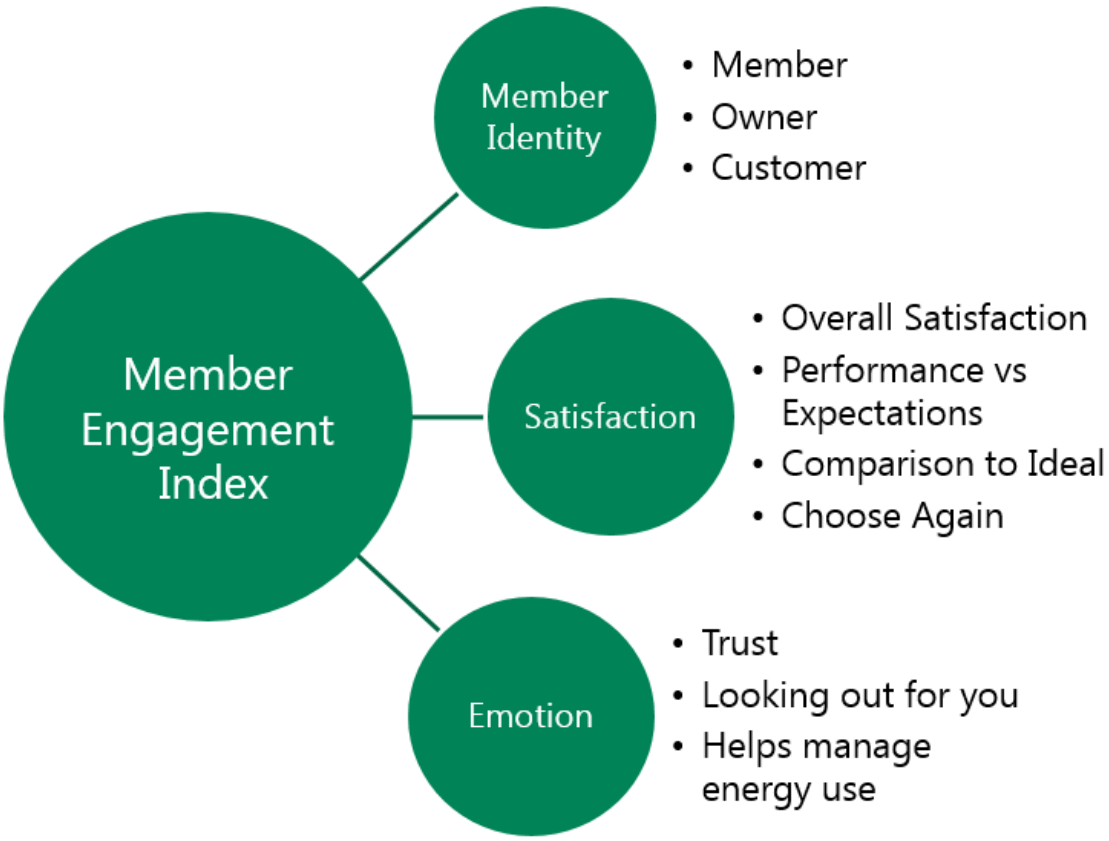
MEMBER ENGAGEMENT INDEX

Member engagement helps cooperatives move a member from a state of indifference to an active proponent of the cooperative. Engaged members truly understand and embrace the 'cooperative difference.' They are willing to take action for the cooperative when needed, are more understanding and supportive during tough times, respond to programs offered by the cooperative and are true advocates for their cooperative and the cooperative business model.

Tens of thousands of interviews conducted over the past several years in the Cooperative Difference Survey show us that satisfaction is necessary but not sufficient for member engagement. In order to better understand the impact of our service performance, image and community activities on member engagement, TSE Services and Touchstone Energy have developed the ***Member Engagement Index***.

The ***Member Engagement Index*** is intended to augment the ***ACSI Index*** by giving cooperatives a stable and robust key performance indicator (KPI) that includes attributes unique to our cooperative business model. These attributes include satisfaction measures, member and owner identity, looking out for the members' best interests, being a name they can always trust and helping them manage energy costs.

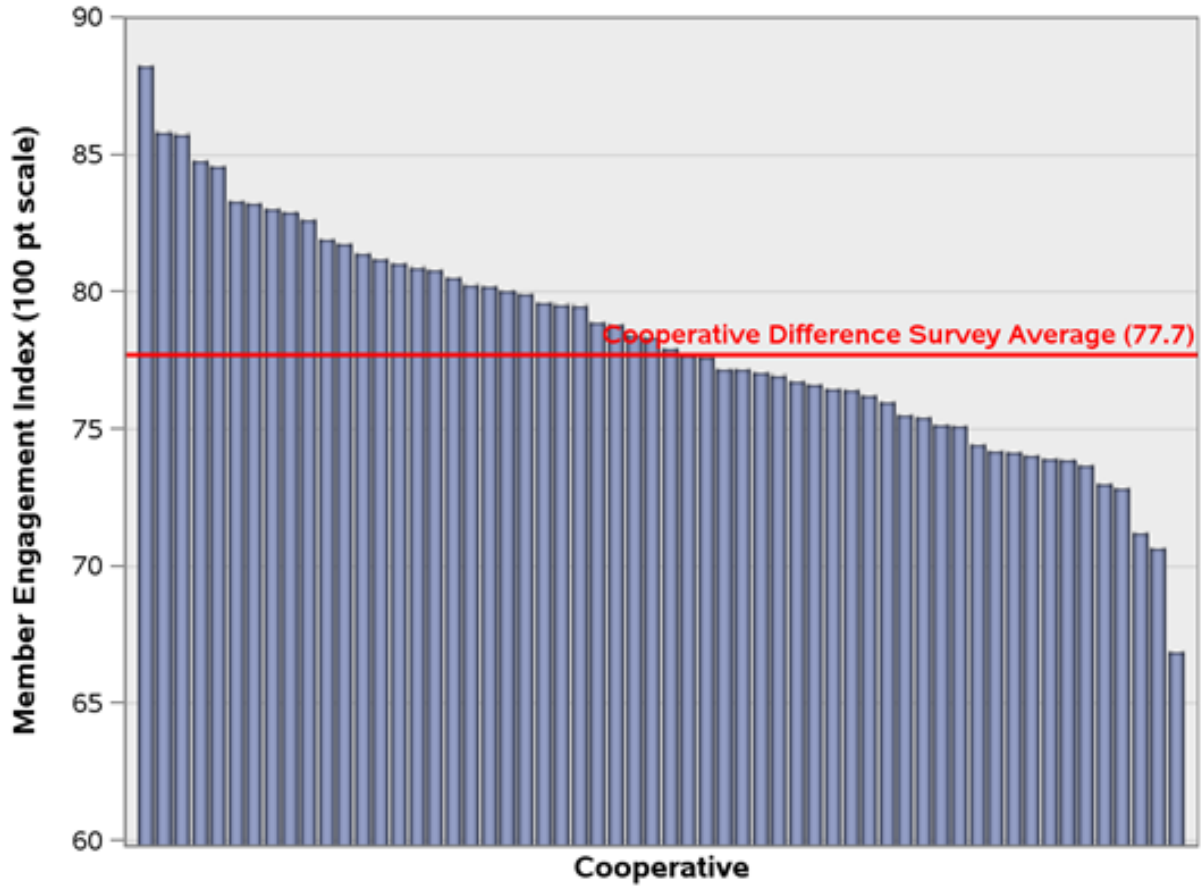
Member Engagement Index



The following chart shows the ***Member Engagement Index*** scores generated by the cooperatives participating in the 2015-2016 survey.

Member Engagement Index

National Benchmark



The data show the ***Member Engagement Index*** for 2015-2016 participants range from a low of 67 to a high of 88 on a 100-point scale. The median or benchmark is 78. Comparing the ***Member Engagement Index*** to the ***ACSI Index***, one could conclude that we have now set a higher bar. Working toward higher levels of member engagement requires cooperatives to move beyond excellence in core competencies such as reliability and customer service. Achieving standout performance in engagement requires cooperatives to create and maintain an emotional bond with members through everyday actions and communications.

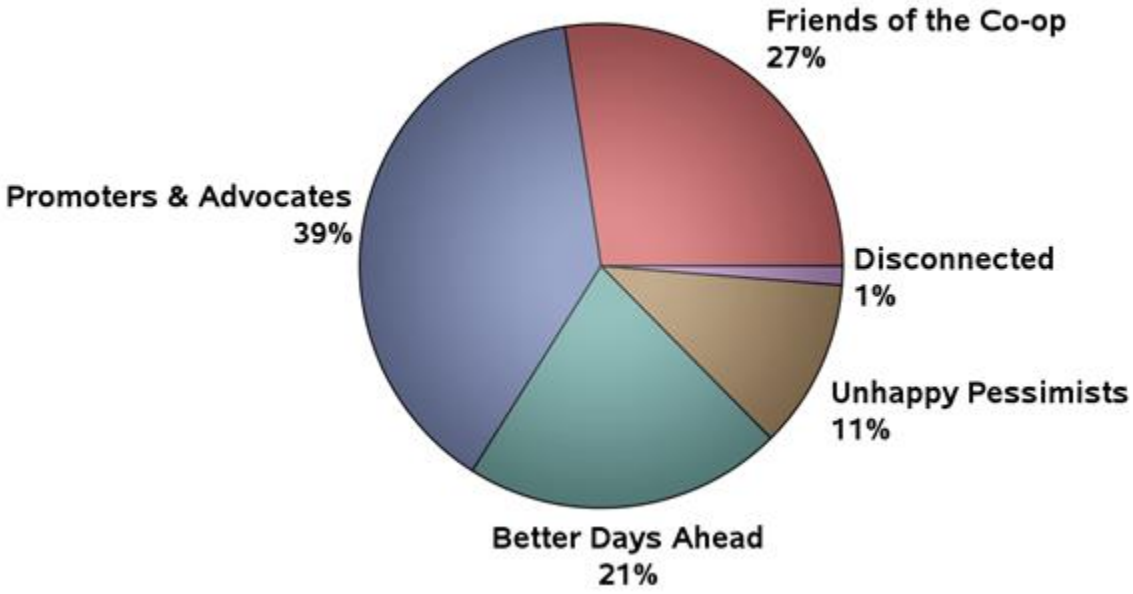
MEMBER ENGAGEMENT SEGMENTS

Cooperatives serve a diverse membership. While many are ready to be called on to support grassroots initiatives or demand-response programs, others are a work in progress. These members are open to dialogue with the cooperative but not yet ready to step up on its behalf.

Our research examined member engagement in depth and the results point to five distinct categories or segments. Member engagement segments are defined below and provide a glimpse of the opportunities and challenges facing cooperatives in their efforts to build a cadre of member advocates.

Member Engagement Segments

2015-2016 Cooperative Difference Survey



Promoters and Advocates (39%)

Nearly two out of five cooperative members are categorized as *Promoters and Advocates*. This group is characterized by high levels of satisfaction and strong engagement with the cooperative. *Promoters and Advocates* expressed the highest member/owner identity.

Promoters and Advocates expressed high awareness of cooperative programs as well. This group provided the highest performance ratings related to capital credits distributions. In past studies, this group had the highest awareness and use of the Co-op Connections Card program.

Promoters and Advocates tend to be older members living in older homes who have accumulated years of experience with the cooperative. They are least likely to have children under 18 living at home, receive monthly electric bills under $150 and earn low-to-modest levels of income. *Promoters and Advocates* represent the foundation of our grassroots voice.

Friends of the Cooperative (27%)

This segment represents more than a quarter of cooperative members. This group does not identify themselves as members or owners of the cooperative. Despite this, *Friends of the Cooperative* are more inclined to contact legislators on behalf of the cooperative and participate in demand response or energy efficiency programs.

This group has high member satisfaction and rates the cooperative well on all key service attributes including reliable service, good value and problem resolution. It also appears this group views the cooperative as committed to using renewable energy sources.

Members in this group tend to be females from older and lower income demographic groups. *Friends of the Cooperative* have many years of experience with the cooperative and typically live in older homes. These members have lower electric bills and typically do not have children under 18 living at home.

Better Days Ahead (21%)

The *Better Days Ahead* segment expresses modest levels of satisfaction and engagement with the cooperative. Satisfaction and performance ratings lag behind those of the *Promoters and Advocates* and *Friends of the Cooperative* groups. *Better Days Ahead* households are younger and have less experience with their cooperative. These growing households reside in somewhat newer homes and earn modest to high incomes. Men are more prominent in this segment than women.

While there is some member/owner identity, the vast majority of this segment views themselves as customers of the cooperative. In terms of engagement, this segment appears to be a work in progress. Their relatively short tenure with the cooperative and their middle of the road satisfaction ratings indicate this group's relationship requires continued care and attention. Reinforcing the positive aspects of the cooperative business model along with continued service experiences will help elevate the engagement level for members of this segment.

Unhappy Pessimists (11%)

One out of 10 members fall into the *Unhappy Pessimists* segment. Households in this group are not at all satisfied with the cooperative or their performance in key service areas. *Unhappy Pessimists* experienced the highest levels of contact with the cooperative and were more likely than most segments to visit the local office. However, these cooperative contacts were not generating higher member satisfaction. Instead, these contacts appear to have diminished their satisfaction even further.

The vast majority of this group consider themselves customers, not members or owners of the cooperative. This segment is younger and more likely to have children under 18 at home. They have less experience with their cooperative and are likely struggling with financial pressures experienced by today's younger membership. This group experiences the highest monthly electric bills of any segment. Addressing the concerns of this segment presents a significant challenge for electric cooperatives.

Disconnected (1%)

The smallest engagement segment, *Disconnected* households are generally satisfied with the cooperative but do not exhibit strong opinions toward issues related to the electric cooperative. It appears this group is ambivalent to their relationship with the cooperative and is unlikely to respond to grassroots initiatives. Many households in this group are unaware of the size of their electric bill. Households in this segment are older and have the highest percentage of mobile home ownership.

KEY ATTRIBUTE PERFORMANCE

Cooperatives receive high marks in core operational areas such as reliability, outage restoration and handling problems. However, ratings on service and image attributes unique to electric cooperatives show significant opportunities for improvement.

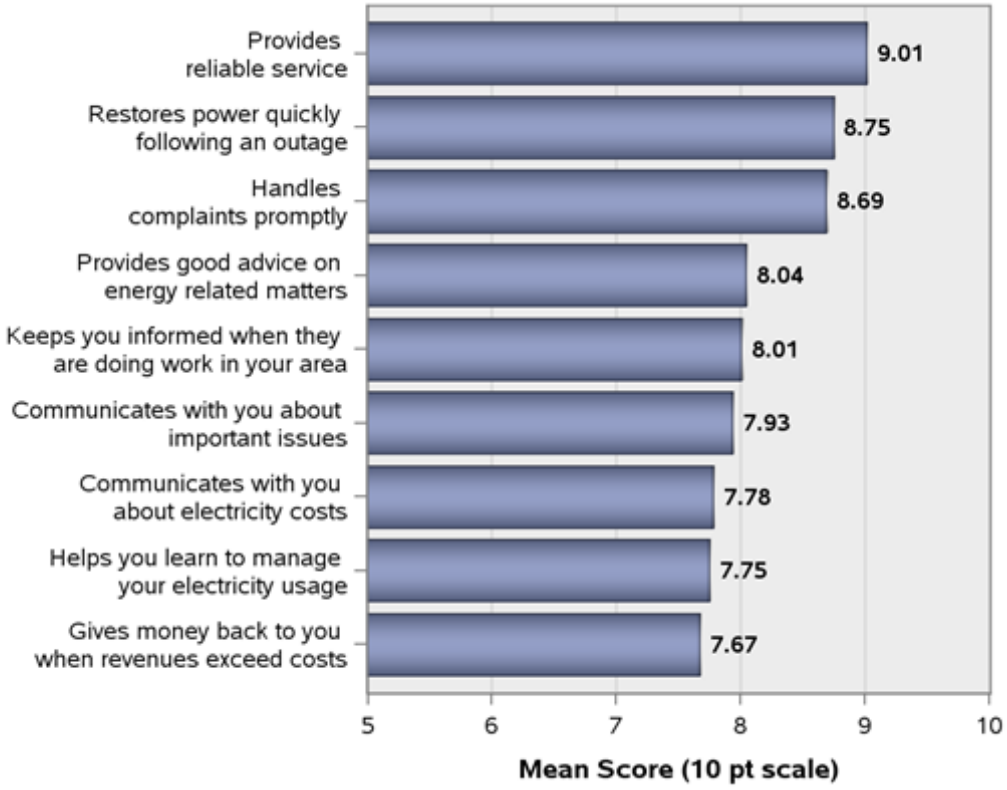
While an *ACSI* score or *Member Engagement Index* provide cooperatives with key performance metrics to assess their overall performance, it is also important to understand how members perceive performance across a range of service and image-related attributes specific to electric cooperatives. This deeper exploration allows us to determine which service elements most influence member satisfaction and engagement and provide a strategic roadmap for improvement.

Members were asked to rate their level of agreement with statements about their cooperative's performance on core services as well as elements related to the cooperative's image and their involvement in key community-related activities. The results for each area are presented below.

Agreement ratings for these attributes are shown on a 10-point scale. A rating of 10 indicates members 'agree strongly' with the statement. A rating of one indicates members 'disagree strongly.'

Service Attribute Performance

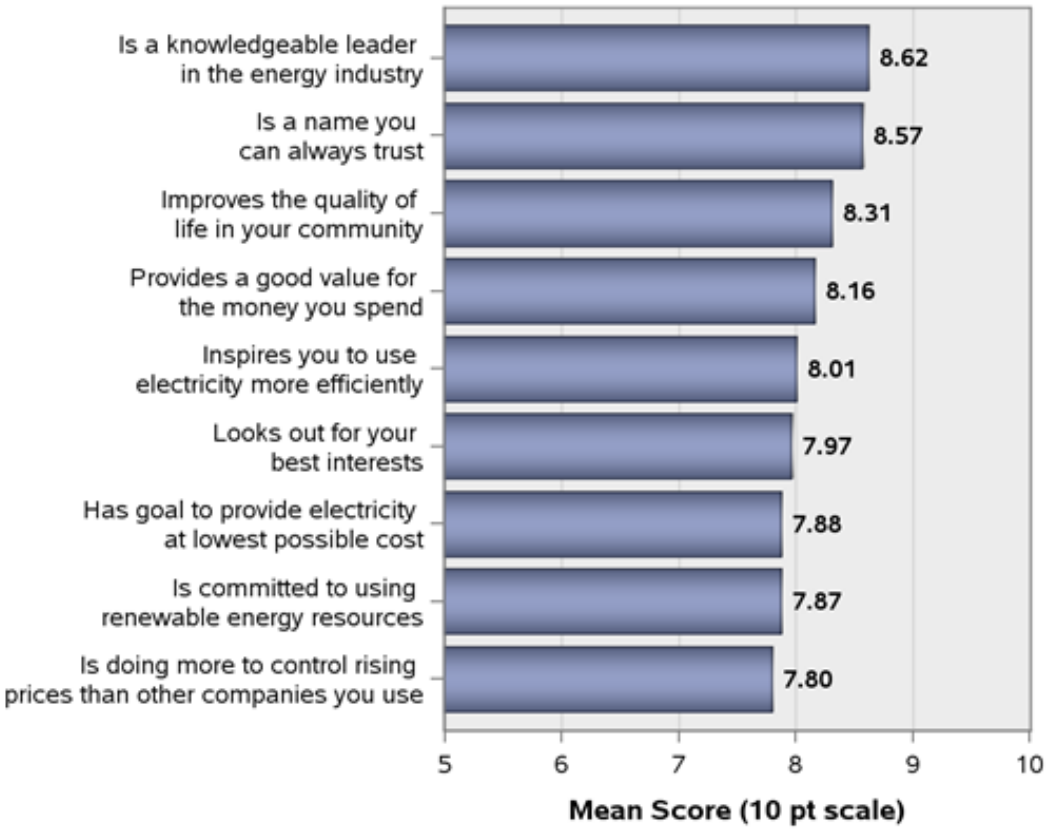
2015-2016 Cooperative Difference Survey



Cooperatives continue to receive exemplary scores for core services such as providing reliable service, outage response and prompt problem resolution. Cooperatives are given lackluster scores in providing good advice on energy related matters, communication elements, helping members manage their electricity use and giving money back.

Cooperative Image

2015-2016 Cooperative Difference Survey



Cooperatives appear to have earned their members' trust, and many members believe that the cooperative is helping to improve the quality of life in the community. However, members provide weak scores in areas that should be recognized as key advantages of the cooperative business model.

Members do not understand that the cooperative's goal is to provide energy at the lowest possible cost or its efforts to control rising costs. They are also not convinced that the cooperative is committed to renewable energy or that it is looking out for members' best interests.

Cooperative scores for providing a good value and inspiring members to use electricity more efficiently are also low relative to core service attributes such as providing reliable service, outage response and handling complaints and problems promptly (shown on the previous page).

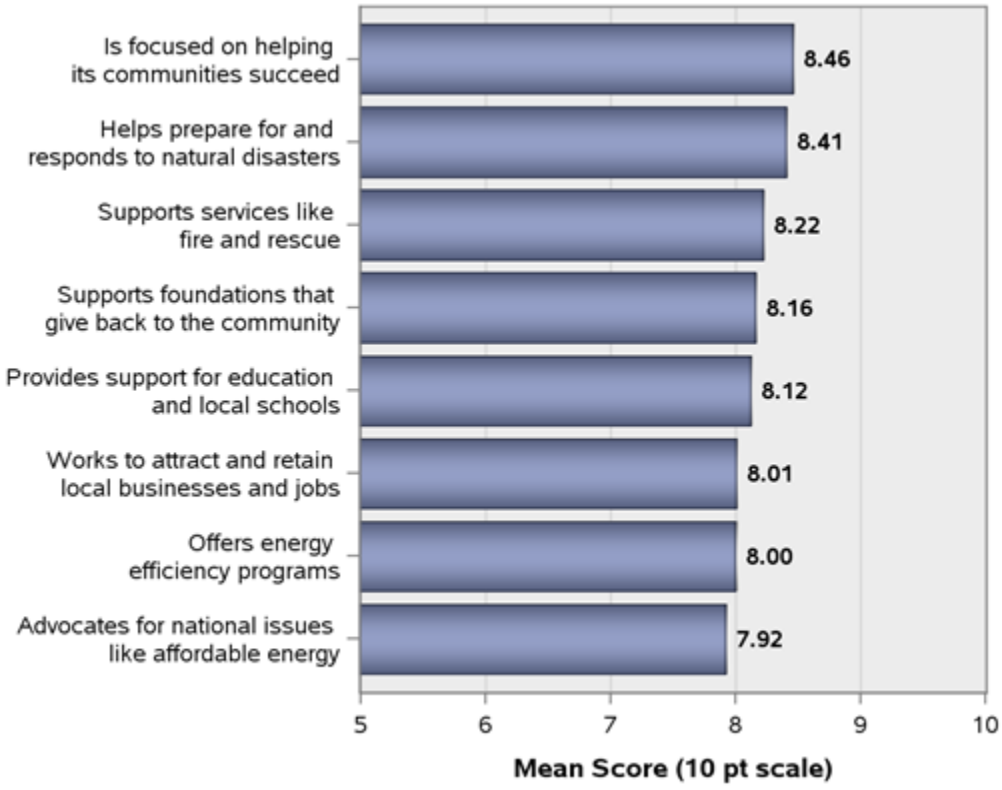
Many of the attributes receiving lower scores can be positively influenced by cooperative communication efforts. Building awareness of the cooperative's goal to provide energy at the lowest possible cost, efforts to control rising energy costs and educating members on steps they can take to save money on their electric bill reflect significant opportunities communicators can leverage to generate higher scores.

Prior efforts in the *National Survey on the Cooperative Difference* included an extensive exploration into the impact of our community engagement activities on satisfaction and member engagement. The study identified a significant gap between the importance members place on these activities and the level of involvement they perceive from their cooperative.

Building on that work, the 2015-2016 study asked members to rate their cooperative's involvement in seven key areas:

Community Engagement Activities

2015-2016 Cooperative Difference Survey



In general, members give average scores to their cooperative in key community engagement activities. Helping prepare for and responding to national disasters garnered the highest rating among the community activities presented to members.
Advocating for national issues like affordable energy and efforts to attract and retain local business and jobs received the weakest response

Given the importance members place on crisis preparedness and response, Touchstone Energy's Best Practices Knowledgebase featured a case study on Tideland Electric Cooperative in North Carolina and their efforts to prepare their members for severe weather and communicate effectively before and after the storm. To learn more, refer to Appendix II, *Engaging the Community for Disaster Preparedness* or download the piece from the Touchstone Energy interest area of cooperative.com.

KEY DRIVERS OF SATISFACTION AND ENGAGEMENT

Satisfaction is necessary but not sufficient for member engagement. As cooperatives deliver on core services, they can enter into a dialogue with members about the 'cooperative difference' which leads satisfied consumers to become engaged members.

The Road to Member Engagement

A member's experience with their cooperative is in many ways a journey. Every interaction we have with a member presents both opportunity and risk. The cooperative that achieves high levels of member satisfaction will have leveraged each interaction with members to build their trust and confidence, earning the opportunity to open a dialogue with them about the 'cooperative difference.'

The foundation of this dialogue is built through performance in ***Core Services***. As cooperatives demonstrate they are able to handle problems promptly, be fair in their interactions, provide reliable service and restore service quickly when the power goes out, they build a strong base from which to engage members in a two-way conversation.

This dialogue with members allows us to educate them about our ***Goal of Low Cost***, which includes our efforts to provide electricity at the lowest possible cost, what we are doing to control rising prices and the value for the money our service provides.

We further demonstrate our low cost goal through our efforts to help them ***Save Energy***. This includes helping members learn to manage their electricity use and inspiring them to take action to use electricity more efficiently.

Finally, educating members about the cooperative's efforts in ***Community Engagement*** further reinforces the 'cooperative difference.'

Our studies have shown that members place the highest level of importance on ***Community Engagement*** efforts that have a direct and meaningful impact on their lives. Crisis preparedness and response, energy efficiency programs, supporting fire and rescue, assisting local schools, teachers and students, working to attract and retain local businesses and jobs and advocating for national issues like affordable energy should be our highest community engagement priorities.

Expanding this roadmap, we can evaluate how influential each of these four themes is to improving member satisfaction and building member engagement. We begin by analyzing how the themes described above influence member satisfaction as measured by the ACSI. The size of each bubble represents the influence of the theme on improving our ACSI score.

Key Drivers of Member Satisfaction

Delivering on *Core Services* and *Goal of Low Cost* are the predominant drivers of improved member satisfaction. The diagram also shows that *Community Engagement* contributes significantly to higher satisfaction. Helping members *Save Energy* plays an important supporting role.

We consider satisfaction as a necessary but not sufficient condition for member engagement. In order to evaluate the influence of these same themes on member engagement, we model their impact on the ***Member Engagement Index***.

Key Drivers of Member Engagement

While *Core Services* is key and *Goal of Low Cost* is important, helping members *Save Energy* actually leads all other influencers in building member engagement. We also see much greater influence on the ***Member Engagement Index*** from our *Community Engagement* activities.

TRUSTED ENERGY ADVISOR

With an increasing number of new entrants into the energy services market competing for our members' attention, it is critical that cooperatives position themselves to be the trusted resource for objective and reliable information about renewable energy and energy efficiency.

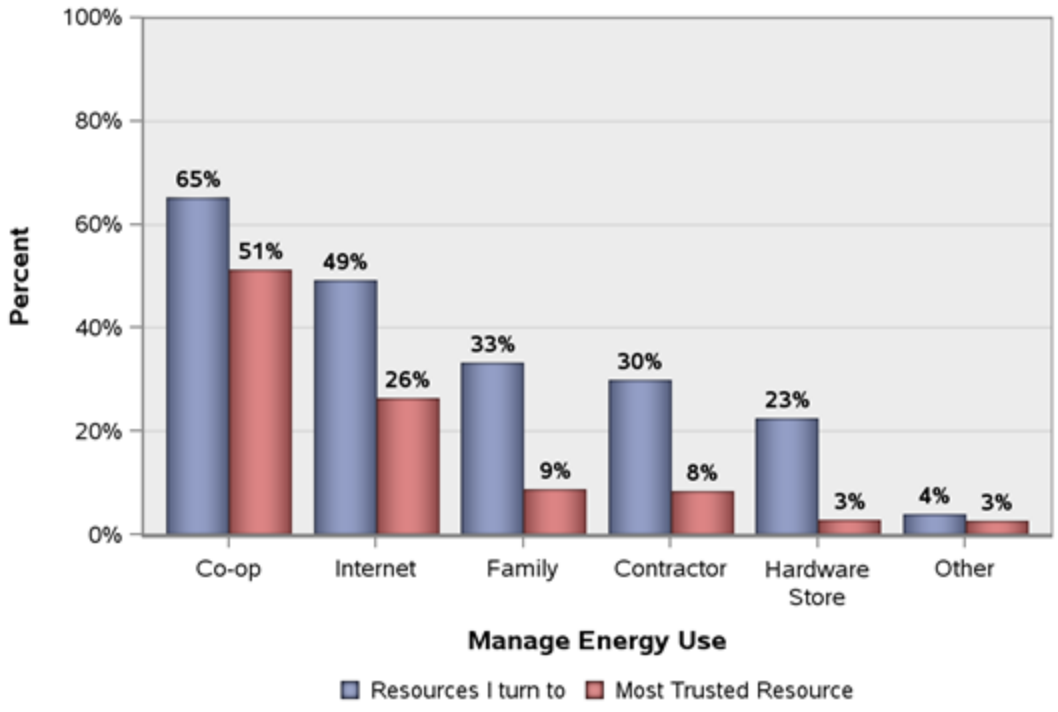
Electric cooperatives are seeing an expanding number of energy service providers reaching out directly to their members for services ranging from roof-top solar leases, billing aggregators pitching 100 percent 'green energy' and smart thermostat and home security vendors offering home automation, energy diagnostics and in-home energy services.

Not all of these new market players have our members' best interests at heart. In order to gauge where members would turn for information on renewable energy or energy efficiency, a series of questions were posed to provide insight on our competitive position in an increasingly crowded market.

We start this research by exploring where members would turn if they had questions on how to save energy in their home. Initially, members were allowed to choose multiple channels. A follow up question asked them to choose their most trusted resource. The results for both are shown below:

If you had a question about managing your energy use, where would you turn?

2015-2016 Cooperative Difference Survey

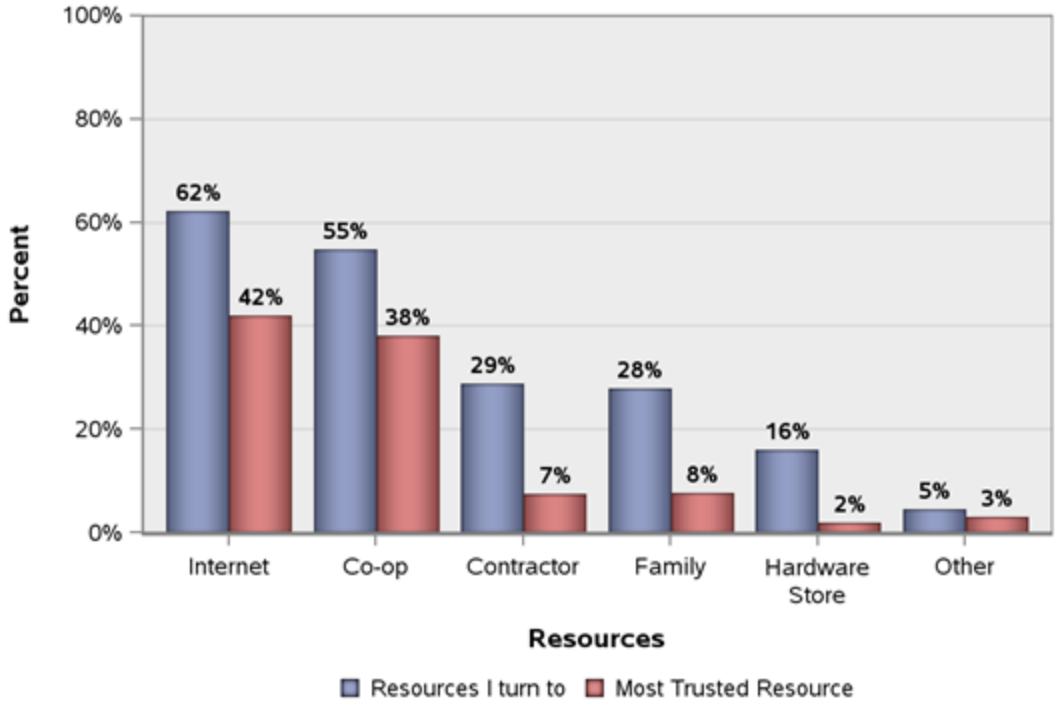


The data show members would most often turn to their electric cooperative for information on managing their energy use. However, many would also turn to the internet or other service providers. Family members and vendors such as a local contractor or local hardware store may be considered, but when a member is asked to choose, they are unlikely to be the preferred source of information.

Next, we asked where members would turn for information on renewable energy resources like solar or wind. As in the previous question, members initially were allowed to choose multiple channels. A follow-up question asked them to choose their most trusted resource:

If you had a question about renewable energy, where would you turn?

2015-2016 Cooperative Difference Survey



When it comes to information on renewable energy resources like solar or wind, members are more likely to turn to the internet for answers than any other resource, including their electric cooperative. As we saw with information on energy efficiency, potential vendors or family members are not considered the most trusted source of information.

The key take away is that cooperatives who want to leverage their strong reputation with members who gravitate to the internet for answers must increase their online presence. Digital ad placement strategies will be increasingly important so that when members search for key words like renewable energy, solar or wind, they find their cooperative at the top of the search list.

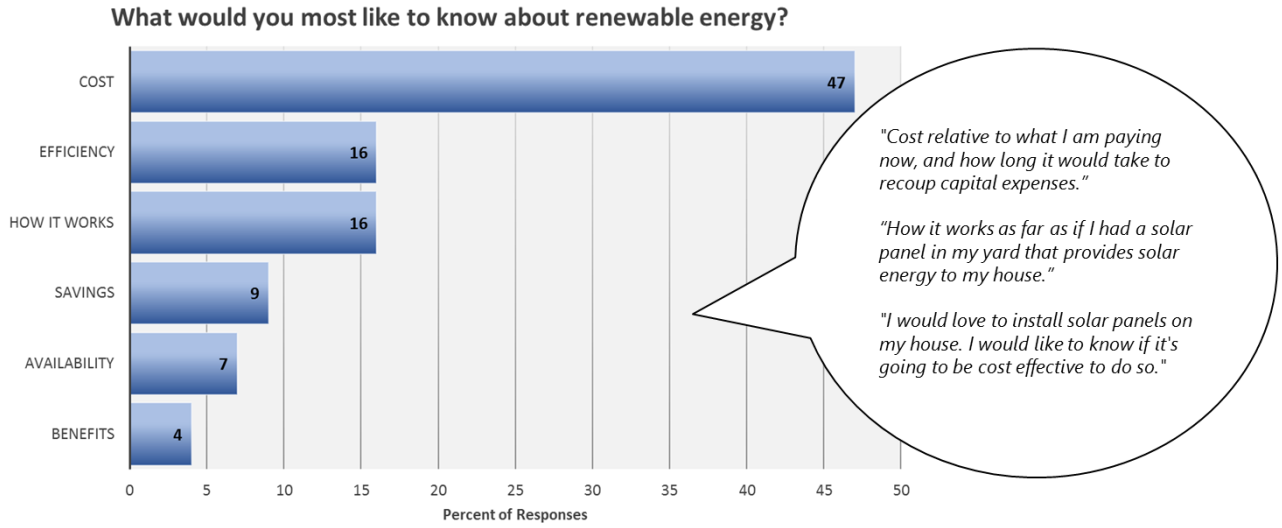
Touchstone Energy's Best Practices Knowledgebase features REA Energy, a cooperative with 80 percent of the membership turning to them for answers on energy related questions. Their case study entitled *Becoming the Trusted Energy Advisor* can be found in Appendix III or in the Touchstone Energy interest area of cooperative.com.

Qualitative Assessment

We also explored what members would most like to know about renewable energy. Rather than presume the categories of information to test, members were asked an open ended question, and the responses are categorized in the chart below.

What Would You Most Like to Know About Renewable Energy?

2015-2016 Cooperative Difference Survey



The data show members are primarily interested in the cost of the system. The efficiency of the technology and how it functions are also of interest. The savings they can expect, the availability of the resource and the benefits they will generate round out the interest areas.

Members were also asked to rate their level of agreement as to whether their cooperative provides good advice on energy-related matters. As the chart on page 21 shows, cooperatives earned a mean score of eight points on a 10-point scale.

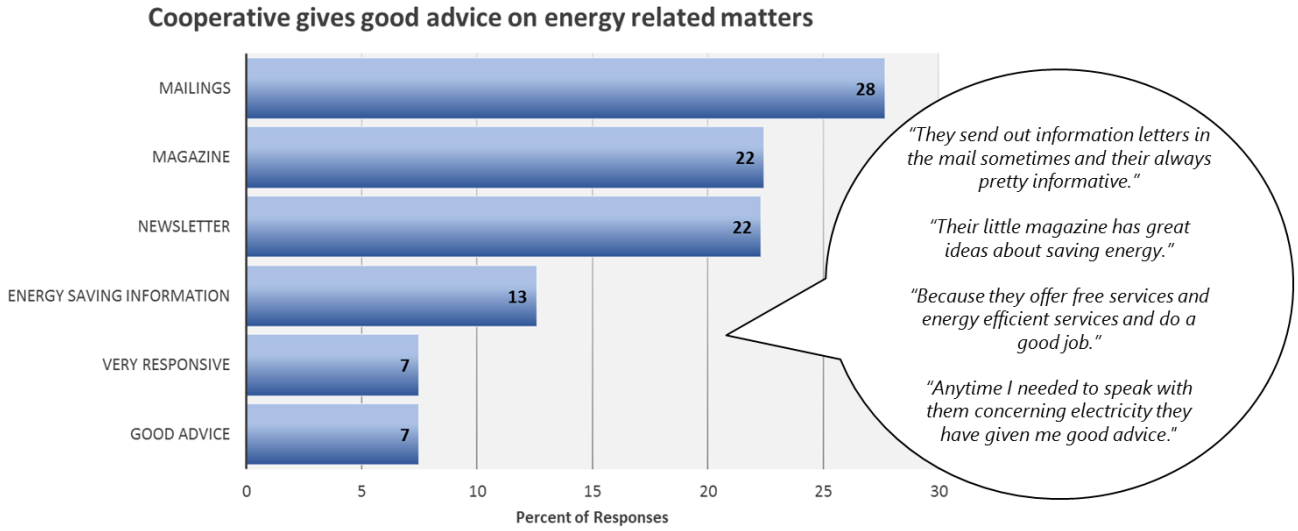
For those members rating the cooperative an eight or higher, the following question was posed:

> 'You indicated that [INSERT COOPERATIVE] provides good advice on energy related matters. Why do you say that?'

As in the previous example, member responses were recorded word-for-word and then categorized into common themes. The following chart shows the sentiments expressed by members along with some direct quotes from participants in the survey:

Why members *DO* believe their cooperative provides good advice

2015-2016 Cooperative Difference Survey



The chart shows that cooperative communications are a critical channel for providing members with good advice on energy-related matters. Nearly three quarters of members gave a high rating to mailings, the cooperative's magazine or newsletter.

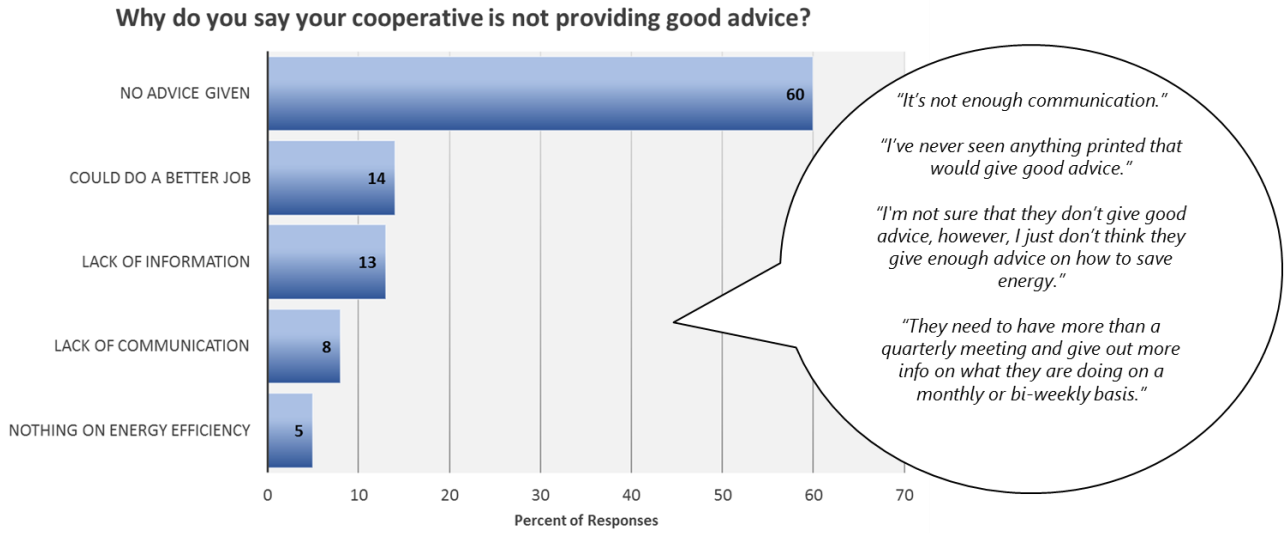
For those members rating the cooperative a seven or below, the following question was posed:

> 'You indicated that [INSERT COOPERATIVE] DOES NOT provide good advice on energy related matters. Why do you say that?'

Member responses were recorded word-for-word and then categorized into common themes. The following chart shows the sentiments expressed by members along with some direct quotes from members participating in the survey:

Why members *DO NOT* believe their cooperative provides good advice

2015-2016 Cooperative Difference Survey



Members who do not believe their cooperative provides them with good advice on energy-related matters did not feel they were getting enough communication on the subject. The majority could not recall receiving any specific information on energy-related matters.

It appears providing regular communications through a variety of traditional and electronic means will increase the chance members receive energy saving tips and advice that is not being recalled by this audience.

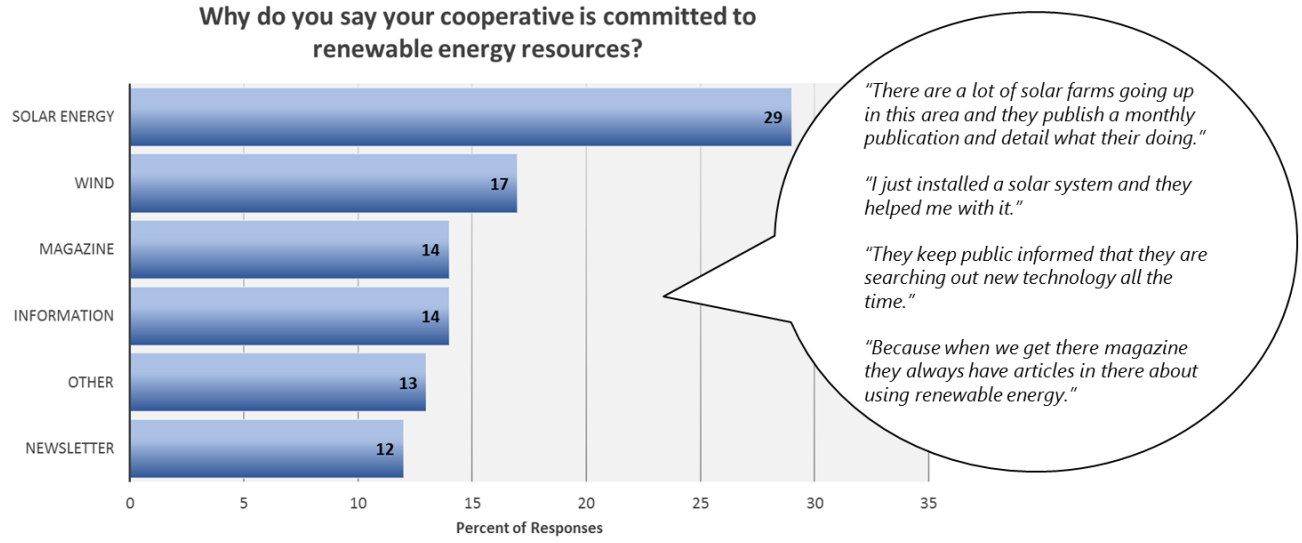
Members were also probed to elaborate on their responses on whether or not they felt the cooperative was committed to using renewable energy resources. Once again, members providing a rating of eight or higher were asked why they felt positively toward the cooperative's position on renewable energy, while members indicating a seven or lower were asked to indicate why they felt the cooperative was not supportive of renewable energy.

More than 50 percent of members felt their cooperative was committed to using renewable energy resources. Members holding these opinions did so because they saw real world examples of solar and wind projects in the community.

Communication was also a strong theme in member comments. Regular information about the cooperative's support of renewable energy resources in magazines, newsletters and other member communication vehicles positively influenced member perceptions in this area.

Why members *DO* believe their co-op is committed to renewable energy?

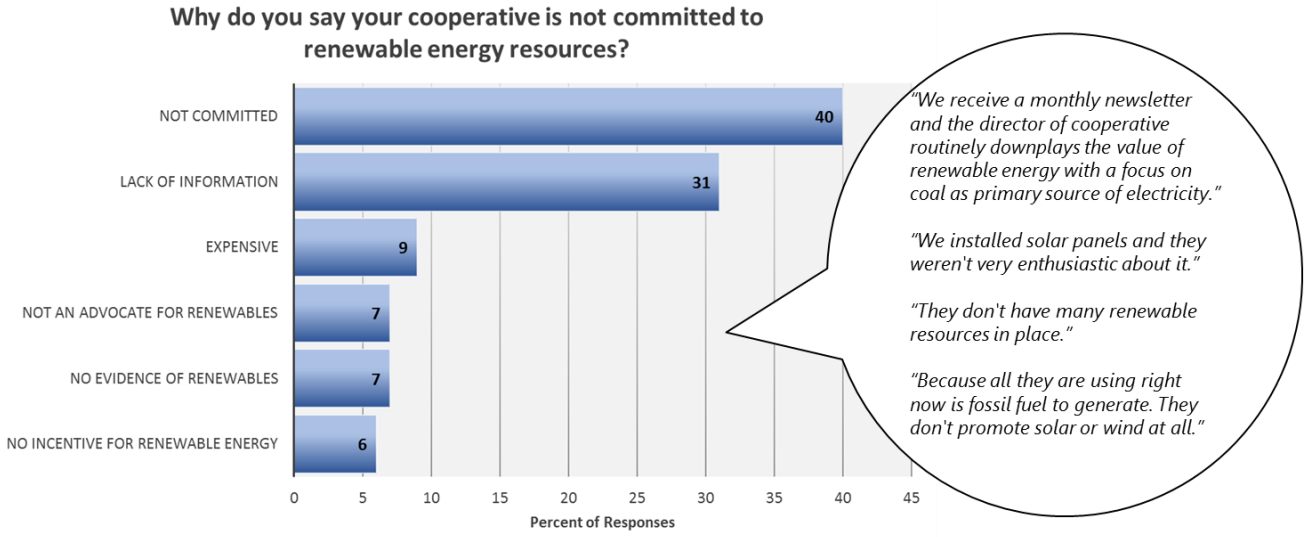
2015-2016 Cooperative Difference Survey



Less than 50 percent of members felt their cooperative was not committed to using renewable energy resources. Members holding this opinion mentioned examples of statements and actions by the cooperative which implied a lack of support for renewable energy programs. Also, general lack of information on the cooperative's position led members to the conclusion the cooperative was not committed to renewables.

Why members *DO NOT* believe their co-op is committed to renewable energy?

2015-2016 Cooperative Difference Survey



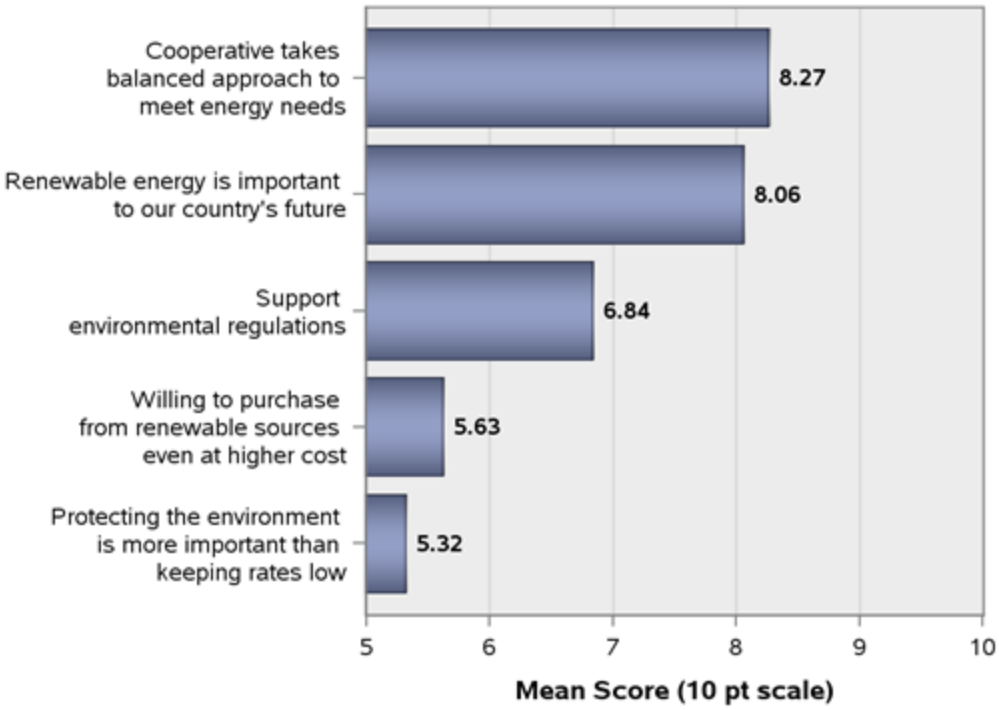
EMBRACING THE ENVIRONMENT

Members support a balanced portfolio of energy resources, including renewable energy, traditional sources of power and energy efficiency. While they believe that renewable energy is important to our nation's future, there is little appetite for paying a premium for it. Most do not support regulations that limit the use of coal in generating electricity.

To assess member attitudes toward the electric utility industry and the environment, members were presented with a series of statements and were asked to tell us whether they agreed or disagreed with the sentiment. The following chart shows the results:

Attitudes on Issues Impacting the Environment

2015-2016 Cooperative Difference Survey

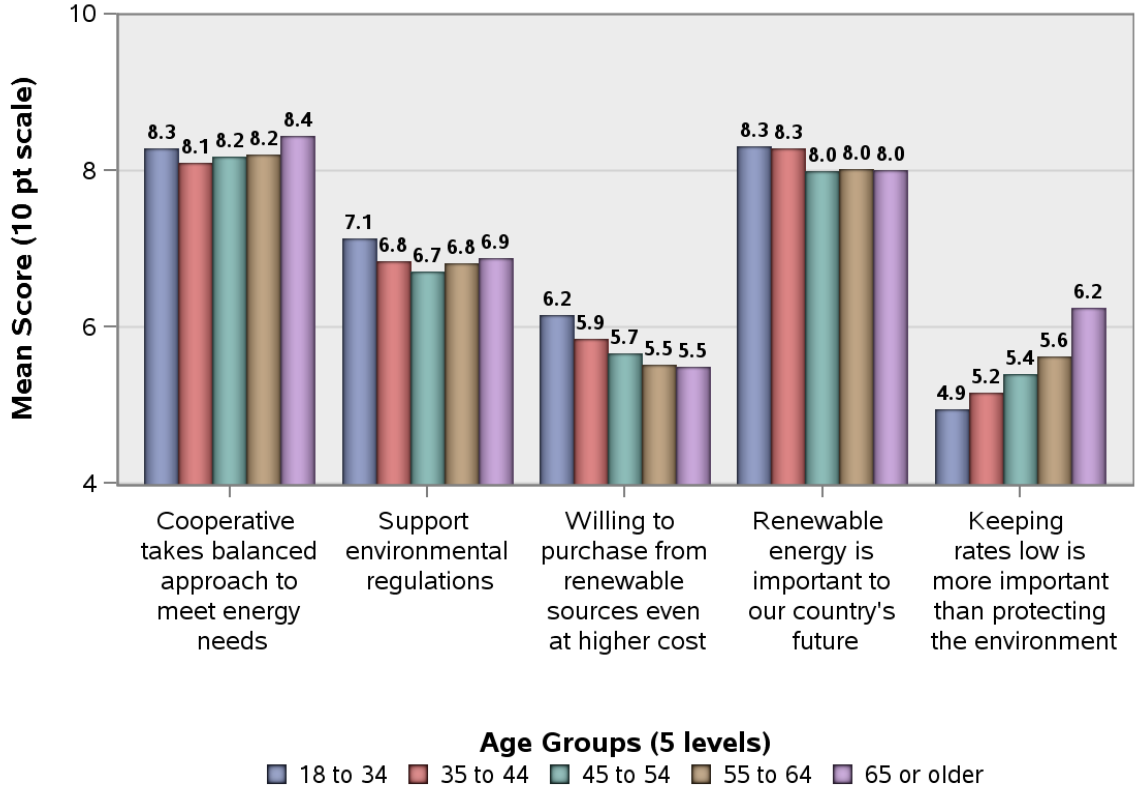


The data show that members prefer a balance in the resources used to meet their energy needs. While they do not support regulations that limit the use of coal, they would also not trade protecting the environment for lower electric rates. Finally, while they believe that renewable energy is important to our nation's future, they would be reluctant to pay a premium for it.

Looking at these issues by the age of the member, we see some interesting trends, but age does not appear to be a major factor in understanding differences in environmental attitudes between member groups:

Attitudes on Issues Impacting the Environment

2015-2016 Cooperative Difference Survey



Older members are more likely to place a priority on keeping rates low than their younger counterparts. However, with a rating of six on a 10-point scale, even those 65 and older do not agree that keeping rates low is more important than protecting the environment.

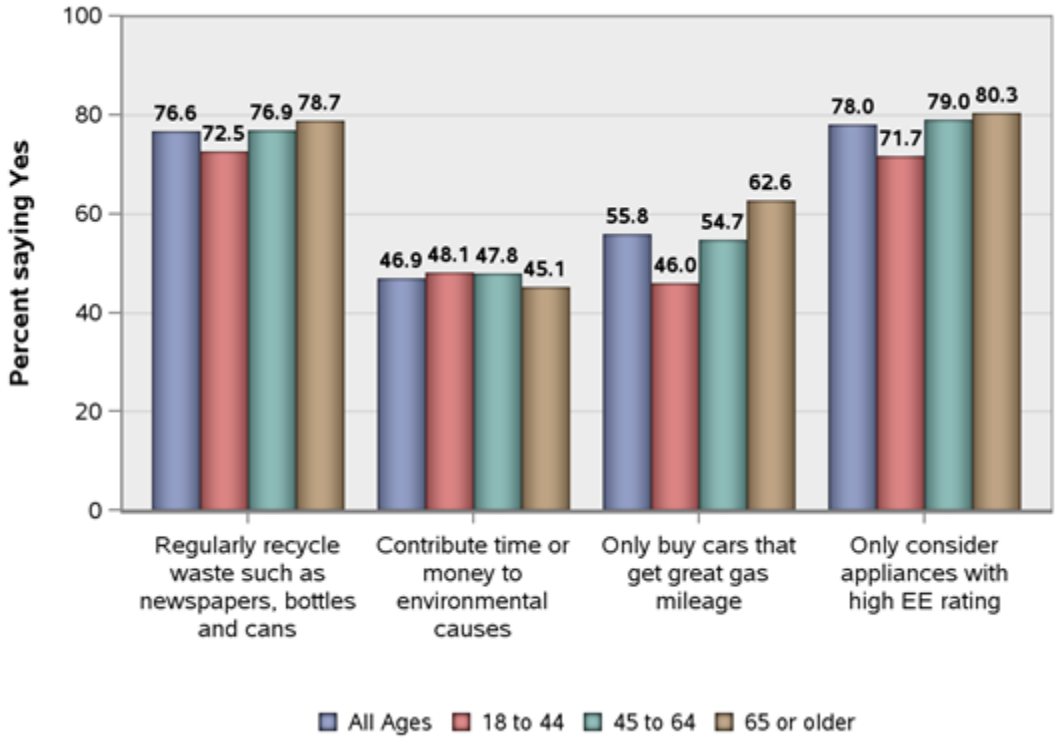
Consistent with this finding, it appears the youngest members are somewhat more likely to say they would be willing to pay a premium for renewable energy, but as in the previous example, their rating of six out of 10 indicates they would be unlikely to do so.

While member attitudes towards the electric industry and the environment are revealing, we also explored whether members are taking action to protect the environment in their day-to-day lives. Members were asked whether they regularly recycle, contribute to environmental causes or consider energy efficiency in their purchases.

The following shows the age and percent of members indicating they take action for the environment:

Environmental Behaviors (% of members stating 'yes')

2015-2016 Cooperative Difference Survey



The data show more than three quarters of members regularly recycle and only consider purchasing appliances with high energy efficiency ratings. More than half only buy cars with great gas mileage, and just below half contribute time or money to environmental causes.

Interestingly, the oldest age group shows the highest rate of environmental action while the lowest rates were by the youngest members.

SOLAR POWER OPPORTUNITIES

Members express a high level of interest in community solar or on-site solar leases from their cooperative. For most, the primary driver is not a desire to be 'green' but the belief that it will help lower their electric bill.

With the dramatic drop in the price of solar photovoltaic systems, companies like Solar City are attempting to undercut incumbent electric utilities with a promise of green, lower cost electricity prices that are locked in for 20 years.

In order to gauge interest in solar energy leases and to assess what would motivate a member to adopt solar energy, a series of questions were asked, starting with interest in the concept of community solar. Members were presented with the following description:

> 'Imagine you could buy or lease a portion of a solar power farm in your local community that produces electricity from sunlight. You could offset some or all of your electric bill with the energy it produces. How interested would you be in participating in a community solar project?'

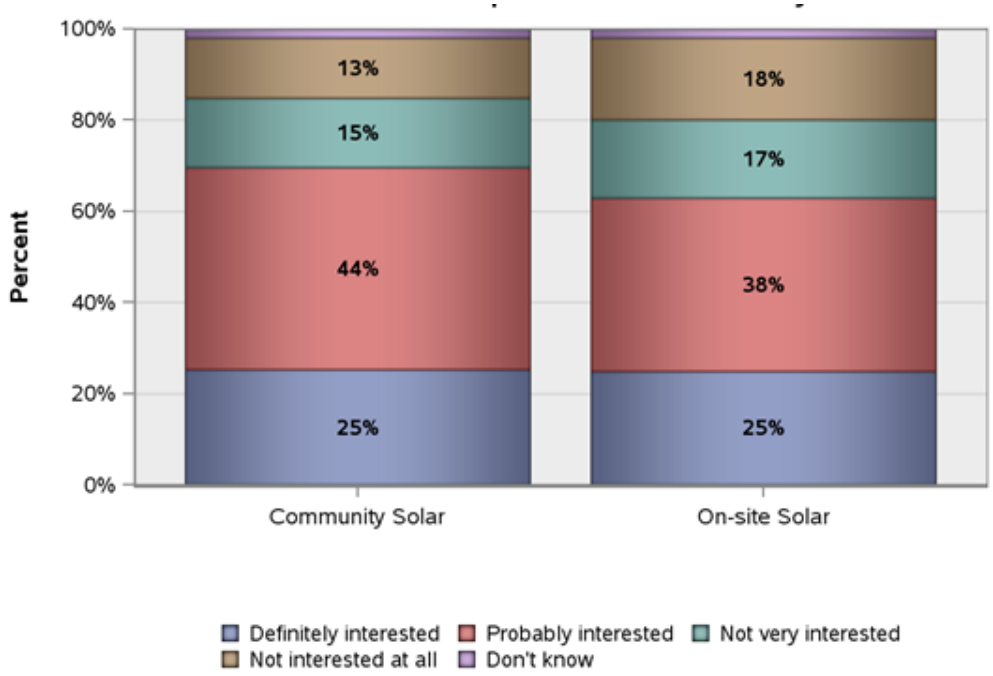
Members were also presented an option for on-site solar:

> 'Imagine you could lease a solar power system for your rooftop or property, allowing you to offset your electricity use with the energy it produces. How interested would you be in leasing an on-site solar system for your home?'

The following chart shows the level of interest in both community solar and on-site solar. Interest levels range from those who are definitely interested, probably interested, not very interested or not at all interested.

Interest in Community Solar or On-Site Solar Leases from the Cooperative

2015-2016 Cooperative Difference Survey

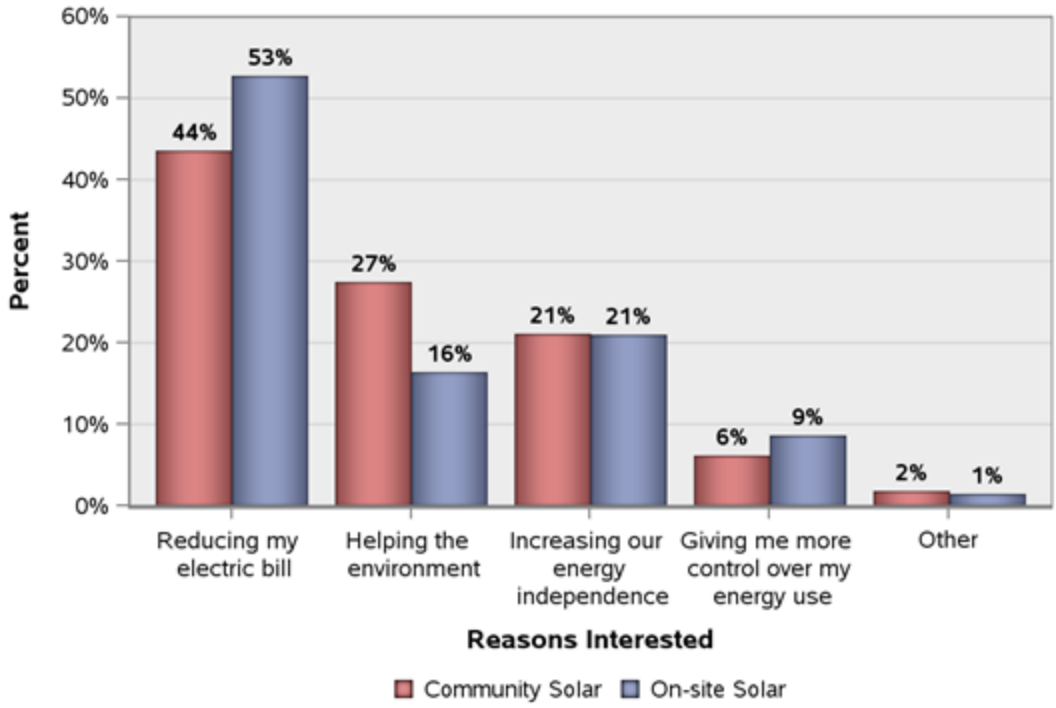


The results demonstrate a relatively strong interest in solar energy, with one quarter of members expressing 'definite interest' in both community solar and on-site solar. Another large group expressed they were 'probably interested.' In all, more than two-thirds of members were positively inclined to participate in a solar lease.

For those who were positively inclined, we next asked them to indicate why they were interested in solar energy. They were given five motivations to choose from, including reducing their electric bill, helping the environment, increasing our energy independence, giving them more control over their energy usage or some other reason. The following chart shows their responses:

Motivation for Exploring Solar Power

2015-2016 Cooperative Difference Survey



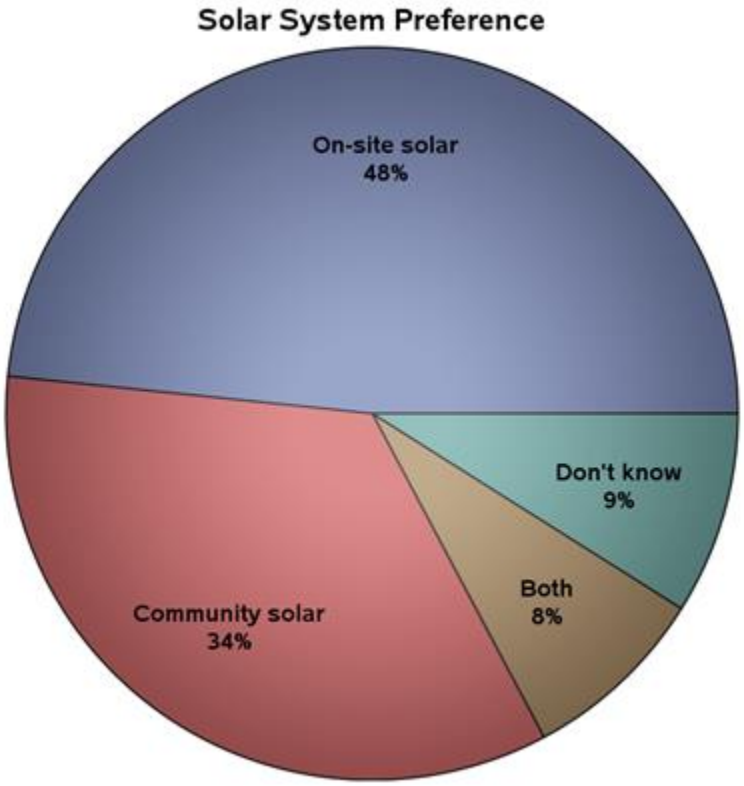
The chart shows that the primary motivation for most members was saving money on their electric bill. Helping the environment and increasing our energy independence competed for a distant second place. Giving members more control over their energy use did not seem to be a major factor in their decision.

As might be expected, those who were interested in solar energy were often interested in both community solar and on-site solar. Anticipating that, a follow-up question asked them to choose between the two.

The following chart shows their preference:

Preference Toward On-Site or Community Solar

2015-2016 Cooperative Difference Survey



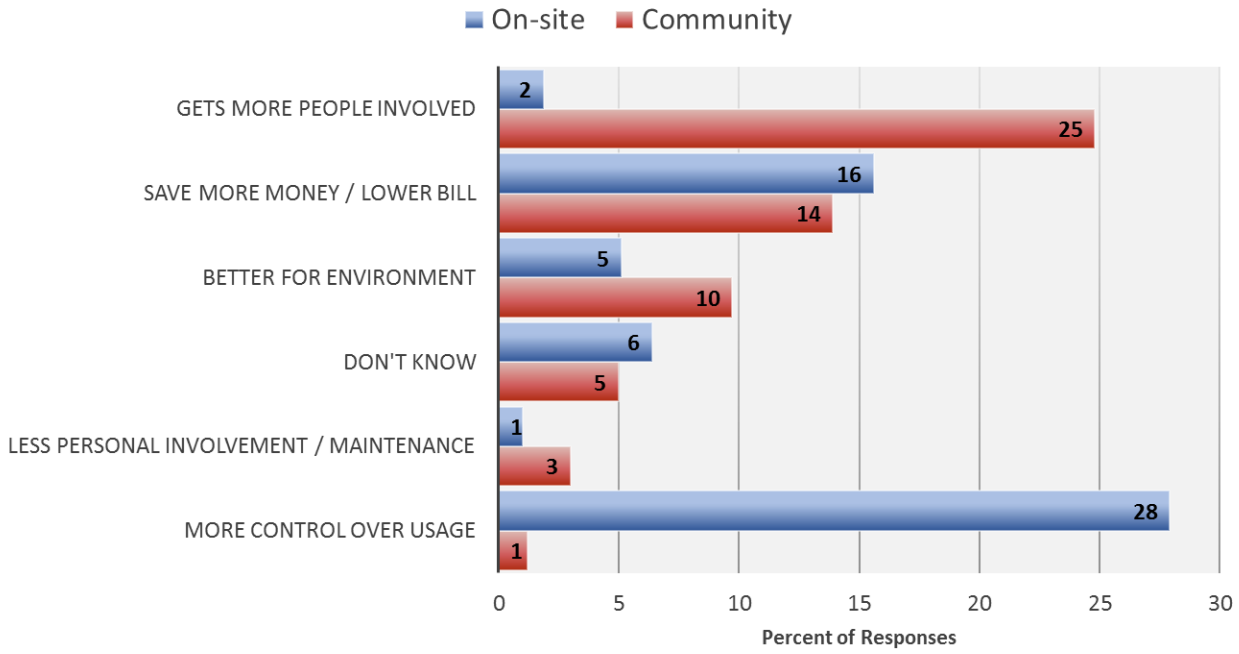
The data show that if asked to choose, nearly half of those interested in both community solar and on-site solar would choose on-site. One third preferred community solar, and the remainder either wanted both or couldn't choose.

The preference for on-site solar may indicate that cooperatives should consider expanding their solar efforts beyond community solar gardens. While community solar programs provide members who may not have the funds or ability to invest in on-site systems with an opportunity to participate, it may not be enough to satisfy the majority of members interested in solar systems.

To explore the reasons behind their preference, an open-ended question was posed to members interested in either on-site or community solar systems. Their responses are categorized and compared in the chart below:

Reasons for Solar Preference – Community vs On-Site

2015-2016 Cooperative Difference Survey



The chart shows that members who are more interested in on-site solar most often cite that it gives them more control over their usage. They are also likely to mention lowering their electric bill.

Those more interested in community solar are significantly more likely to mention that community solar allows more people to get involved. Like those interested in on-site solar, many also mention lowering their bill. They are also more likely to point to the environmental benefits of community solar.

Member opinions toward environmental issues can vary dramatically, from those highly supportive of eco-friendly activities to those only interested in keeping their costs low.

In order to explore how important environmental issues are to our members and which members are the biggest advocates for the environment, the following section combines all of the data from the survey related to the environment into a comprehensive market segmentation analysis.

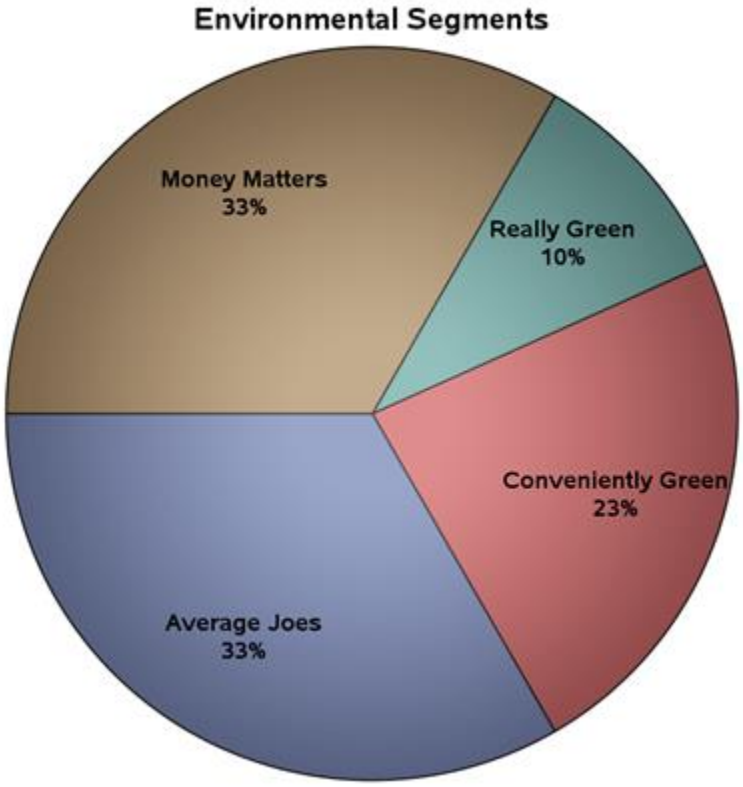
The following chart shows four distinct groups or segments:

Environmental Segments

2015-2016 Cooperative Difference Survey

Really Green (10%)

One out of ten members fell into the *Really Green* segment. These members expressed the strongest levels of environmental stewardship.



Nearly every member in this segment indicated they regularly recycle, contribute money or time to environmental causes, only purchase cars with great gas mileage and only consider purchasing appliances with high energy efficiency ratings.

Strong support of environmental actions was also a hallmark of this group. Nearly all *Really Green* members strongly agreed that renewable energy is important to our country's future and strongly support environmental regulations like limiting the use of coal in generating electricity. They also believe

that cooperatives should balance energy needs through a mix of efficiency, renewable and traditional sources, and most would be willing to purchase renewable energy even if it cost more.

None of the members of this group strongly agreed with the idea that keeping electric rates low is more important than protecting the environment. Members in this segment were more interested in how to be more efficient than they were in simply lowering their bill.

Demographically speaking, these members are technology savvy, experienced lower monthly electric bills, are female and are more likely to have been cooperative members for fewer than five years. Age, however, did not play a major role in differentiating this segment.

The *Really Green* segment gave the highest scores for both Member Engagement and ACSI-related components. Since the engagement level with these members is quite high, cooperatives should be aware that the most environmentally-conscious segment is listening to messages related to the environment or renewable energy. High member engagement in this segment also contributed to their high interest in both a smart thermostat program and an online energy portal, both of which will be discussed in the following section.

The *Really Green* segment expressed the highest interest in both community solar and on-site solar programs. This group was also the only segment where the primary interest in solar projects was associated with helping the environment.

Conveniently Green (23%)

While environmentally-conscious, this member segment does not have the strength of conviction experienced by the *Really Green* segment on environmental issues and behaviors. Still, the vast majority of *Conveniently Green* members engage in environmentally-conscious behaviors such as recycling, contributing time or money to environmental causes, buying cars with great gas mileage and only considering appliances with high energy efficiency ratings.

Attitudes toward environmental issues were significantly lower than the *Really Green* segment, although most still supported a balanced energy portfolio, supported regulations that limit the use of coal and felt renewables were important to the country's future. *Conveniently Green* members were evenly split between wanting more information about being efficient and lowering their bill.

Conveniently Green members gave high scores for both Member Engagement and ACSI-related components, making this segment receptive to absorbing messages related to the environment or renewable energy. Although less inclined to take action than the *Really Green* segment, *Conveniently Green* members still expressed a high level of interest in both a smart thermostat program and an online energy portal.

Average Joes (33%)

This segment describes members whose attitudes and opinions toward environmental issues reveal significantly lower agreement on support for environmental regulations on coal and willingness to purchase renewable energy at a premium than *Really Green* or *Conveniently Green* members. However, this group does show modest support for the importance of renewable energy for our country's future and balancing our portfolio through efficiency, renewables and traditional sources of generation.

The majority of this segment engages in eco-conscious behaviors such as recycling, buying cars with great gas mileage and using appliances with high energy efficiency ratings. Unlike *Really Green* and *Conveniently Green* segments, less than half of this segment contributes time or money to environmental causes.

This segment is more likely to be influenced by messages related to lowering bills than those addressing energy efficiency. Interest in community solar programs among this group is nearly 50 percent lower than the *Really Green* segment. *Average Joes* expressed more interest in on-site solar programs than in community solar programs, and they are primarily focused on solar to reduce their electric bill as opposed to helping the environment.

Average Joes are more likely to be male than female and have been with the cooperative more than a quarter century. These members also tend to have higher monthly electric bills than their more environmentally-conscious cohorts.

Member engagement and satisfaction register at respectable levels among this group, but are not nearly as high as previous segments. Lower levels of member or owner identity make the task of content delivery more challenging for this group.

Cost Matters (33%)

The name of this segment highlights the core belief of this group. The *Cost Matters* segment believes strongly that keeping rates low is more important than protecting the environment. They were least likely to support environmental regulations to limit use of coal, least likely to purchase renewable energy at a higher cost and did not agree that renewable energy is important to our country's future.

By far, this group was the least environmentally active when it came to engaging in environmentally conscious behaviors such as recycling, buying cars getting great gas mileage or considering appliances with high energy efficiency ratings. Only one out of 10 contributed time or money to environmental causes.

Unlike the previous three segments, *Cost Matters* members were more critical of the electric cooperative, giving the lowest satisfaction and performance ratings of any segment. Some of the lowest scores from this segment were received in areas targeting cost containment, value and advice on energy efficiency.

Cost Matters members were also the least engaged segment of the membership. Communicating the cooperatives' position on renewable energy and environmental stewardship with this group will be a challenge unless the message focuses on financial benefits to the member.

Interest in solar programs was significantly lower for both community solar and on-site solar programs. Any interest in solar from the *Cost Matters* segment was overwhelmingly linked to reducing the electric bill. Little consideration was given to the prospect of helping the environment with this group.

Members within this group were predominantly male, had larger monthly electric bills and had the largest percentage of members currently employed. Understandably, the larger monthly electric bills create a greater awareness of cost within this segment at the expense of environmental concerns.

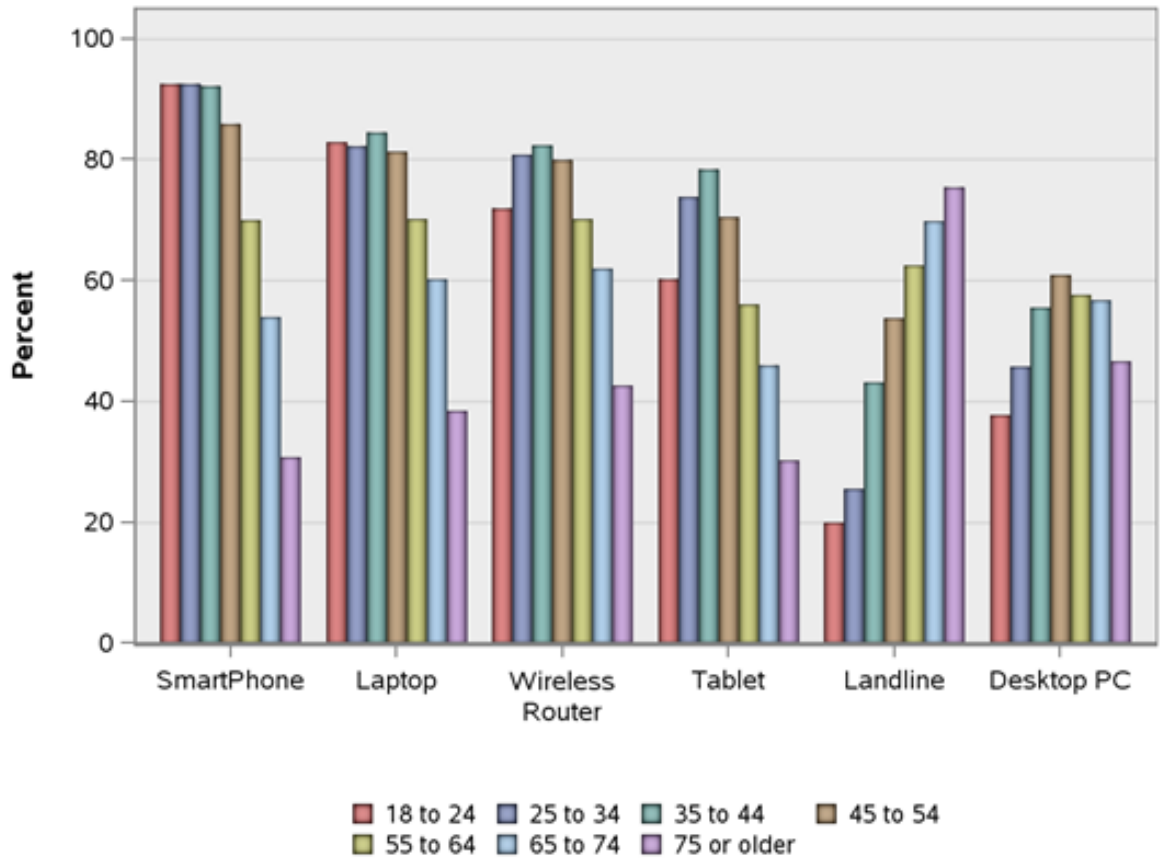
The vast majority of households are connected to the internet. While younger members rely on internet connectivity as part of their daily existence, middle-aged and senior members continue to expand their reliance on technology.

Technology is ubiquitous among cooperative households today. Technology use has changed how families search and retrieve information, communicate with one another and entertain themselves. As 'digital natives,' our youngest members have technology woven into their everyday lives. However, the wide technology divide between old and young continues to shrink as middle-aged and senior members continue to expand their utilization of technology.

Wireless devices such as smartphones and tablet computers open new communication channels for electric cooperatives. This section explores the penetration of technology within member households, providing important insight for cooperative communicators and program designers.

Does Your Household Own a PC, Laptop, Tablet, Smartphone, Land-Line Phone or Wireless Router?

2015-2016 Cooperative Difference Survey



Ownership of at least one computing device is nearly universal among electric cooperative members under the age of 55. A desktop PC, laptop or tablet computer can be found in about nine out of 10 households below age 55. While technology ownership is lower among older members, the majority of even our oldest members (75+) indicated owning some type of computing device.

Computer ownership among electric cooperative members has grown considerably over the past decade. However, the distribution of computing devices continues to change with technology. Ownership of laptops and tablet computing devices now exceeds desktop computers among our youngest member groups. This movement away from desktop computing signals a dramatic shift toward greater mobility of computing devices.

As computer penetration reaches a saturation point between young and middle-aged households, higher growth rates have been observed among senior members, where significant numbers of senior households now own some form of computing device. More than half of members age 65-74 and more than one-third of those 75 and older own either a desktop or laptop computer.

Technology has evolved from owning one personal computer per household to owning multiple devices for each person in a household. Nearly six out of 10 members indicate owning at least two different types of computing devices while nearly three out of 10 households stated they own a desktop PC, a laptop and a tablet computer.

Computing methods are changing rapidly. Once restricted to a home office, now internet accessibility and the mobility of computing devices make computing possible anywhere, particularly in younger households,. Tablets have already surpassed desktops in younger age groups and are quickly catching up to laptops in electric cooperative households.

Tablet computers are now found in the majority of cooperative households where the head of household is younger than 55 years old. Ease of use of tablets has undoubtedly led to a growing presence in senior households with one-third of those over age 74 now owning a tablet computing device.

Wireless routers are also in wide use, allowing mobile devices to be used anywhere in the home and facilitating the expansion of the ‘Internet of Things’ such as smart thermostats and appliances.

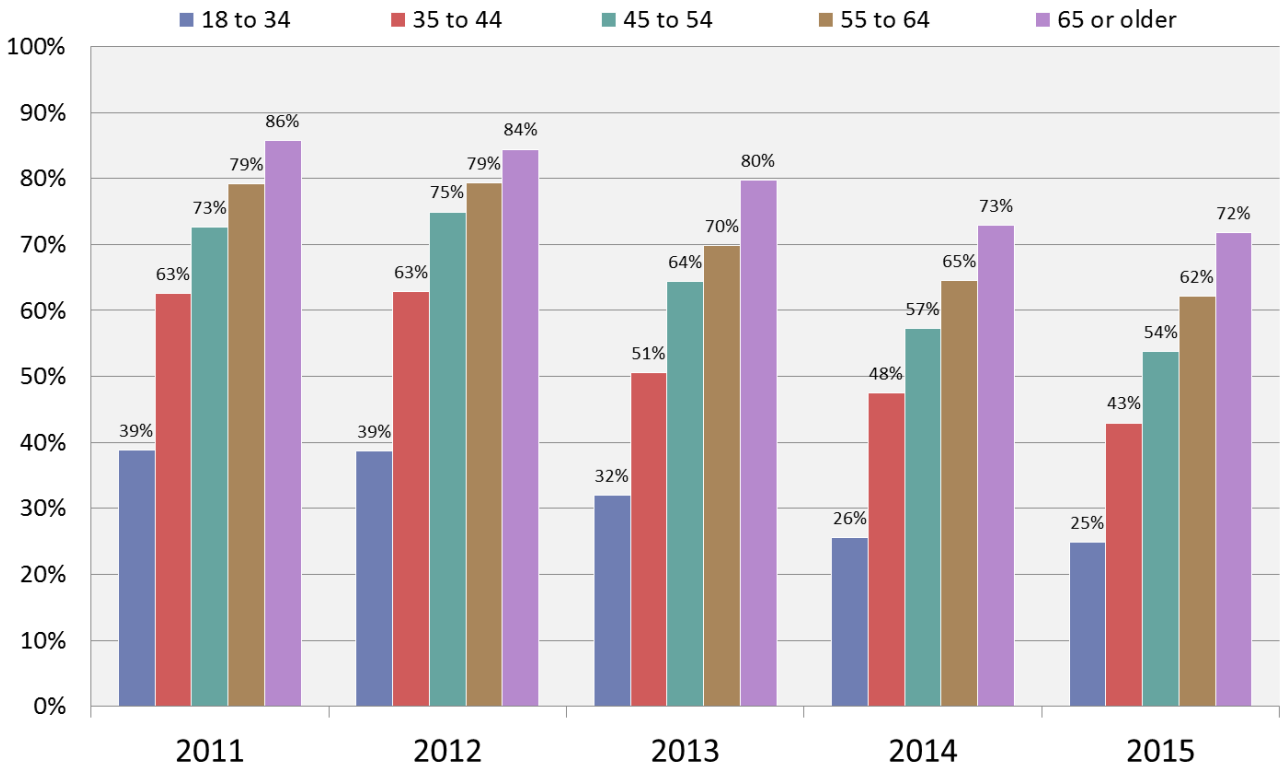
Landlines and Smart Phones

To look at the impact of 'disruptive technology' on member households, one has to look no further than the rapid decline in landline telephone service. With the explosive growth of smartphones, fewer and fewer cooperative members feel the need for landline telephone service.

The following chart shows trends in landline adoption by age group over the last four years from the Cooperative Difference Survey:

Does Your Household Currently Have a Landline?

2015-2016 Cooperative Difference Survey

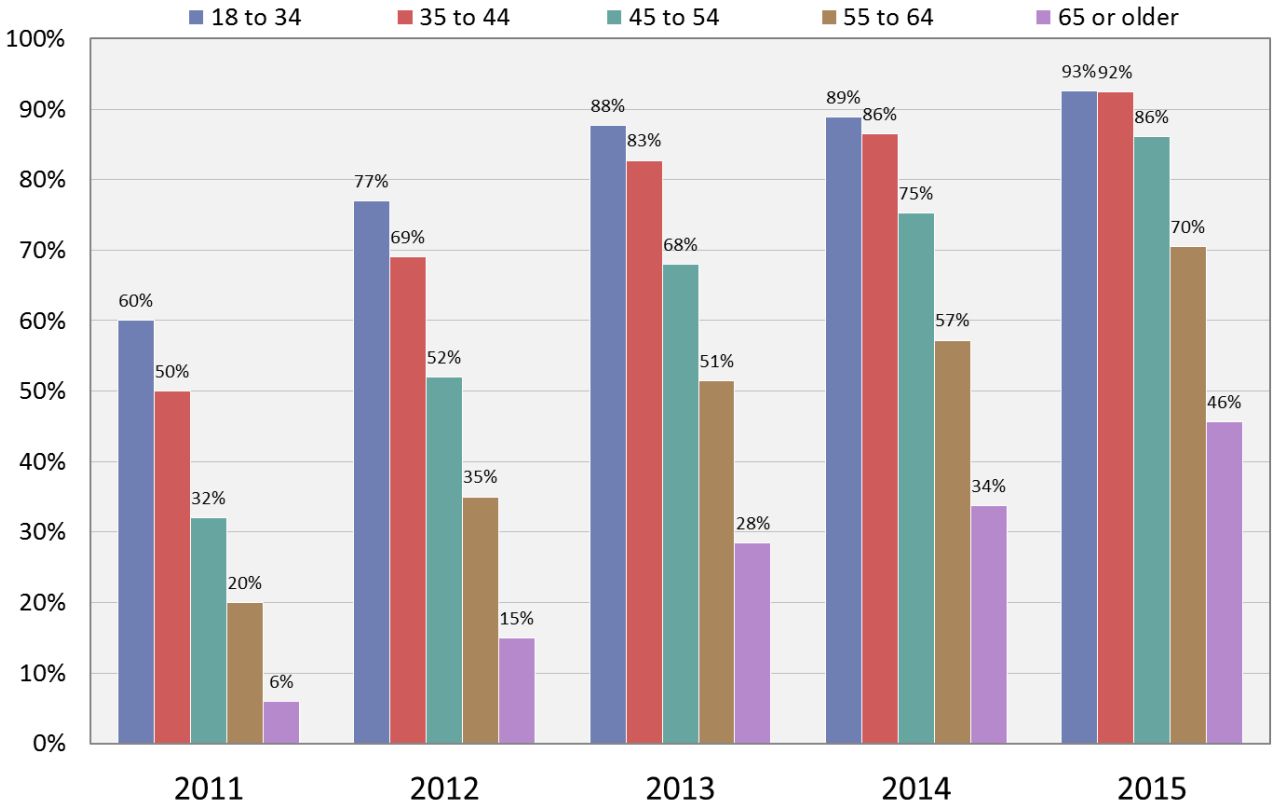


During the past year, the percentage of cooperative households using a landline phone service dropped for all age groups. Among young adult households, only about one out of four members uses a landline connection. The fastest drop is being seen in middle age segments, with a drop of 20 percent in the 35 to 54 year old age group since 2011. Landline telephone connections are also diminishing in the older member segments where the market share has dropped 14 percent in five years.

The following chart shows the meteoric increase in smartphone ownership over the past four years. Across all age groups, cooperative member utilization of smart phones has increased by nearly 5 percent during the past year. The largest percentage jump in smart phone ownership occurred in middle-aged households (45-54) where ownership grew 7 percent.

Does Your Household Currently Have a Smartphone?

2015-2016 Cooperative Difference Survey



Smartphones, such as Apple or Android devices, are common among young members. While the ownership of smartphones decreases with age, significant numbers of members less than 55 years old own these versatile devices. Senior members lag their younger counterparts in smartphone adoption but are continuing to adopt the technology.

In addition to being young, the typical smartphone owner embodies the characteristics of an on-the-go and need-to-be-connected lifestyle. Smartphone owners likely have children at home, have higher monthly electric bills, have fewer years with the cooperative, are more likely to rent their homes and experience higher household incomes. Smartphone households are also significantly less satisfied and less engaged than households without a smartphone.

SMART HOME TECHNOLOGIES

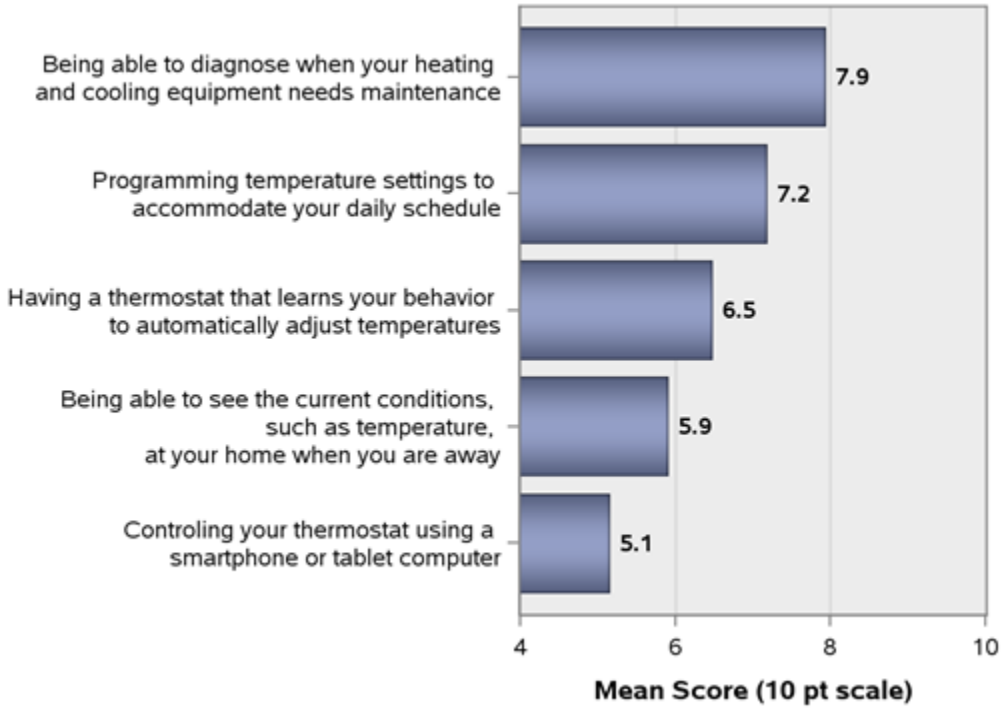
The internet of things and smart home technologies promise cooperative members unprecedented access and control over HVAC systems, appliances, lighting and even door locks. Web-enabled smart thermostats such as Nest and ecobee present significant opportunities for cooperatives to engage with their members for demand-response.

The evolution of smart home technology brings a new level of control, comfort and convenience to cooperative households. This year's study took a closer look at one of these technologies: smart thermostats.

Members were presented a list of features in smart thermostats and asked to rate their overall importance. Attributes ranged from providing members the ability to diagnose problems, schedule temperature changes, adjust temperature based on behavior, monitor current settings remotely and control HVAC units using an internet-connected device.

Importance of Smart Thermostat Features

2015-2016 Cooperative Difference Survey



By a wide margin, members placed the highest value on being able to diagnose potential problems with their HVAC system. Traditionally, most households are reactive to problems with their heating and cooling system; when the equipment breaks, they call a repair technician. The diagnostic feature of smart thermostats underscores a proactive approach to system maintenance and repair which appears to be well received by members.

Of secondary importance was the ability to program temperature settings to accommodate a schedule or having the thermostat adjust to daily behavior. The lowest importance was assigned to monitoring conditions in the home while away and being able to control systems remotely through a mobile device.

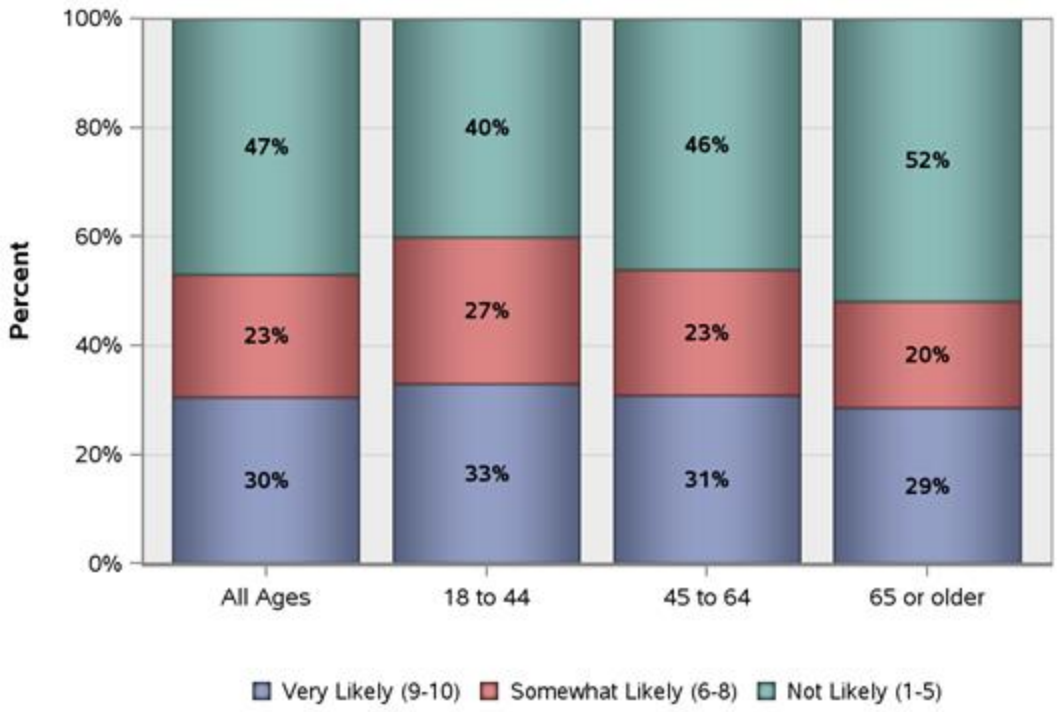
Members were next provided a brief description of a potential demand-response program from their cooperative using smart thermostats and asked their level of interest:

> 'Assume for a moment you could receive a free smart thermostat from your electric cooperative. In exchange, you would let your electric cooperative send a signal to your thermostat to adjust your temperature setting by a couple of degrees for brief periods during extreme weather days. This would help them reduce demand on the electric grid and hold down costs for everybody. Keep in mind that you could always override their adjustment.'

The following chart shows their response, summarizing interest levels on a 10-point scale:

Interest in Using Smart Thermostat Program

2015-2016 Cooperative Difference Survey

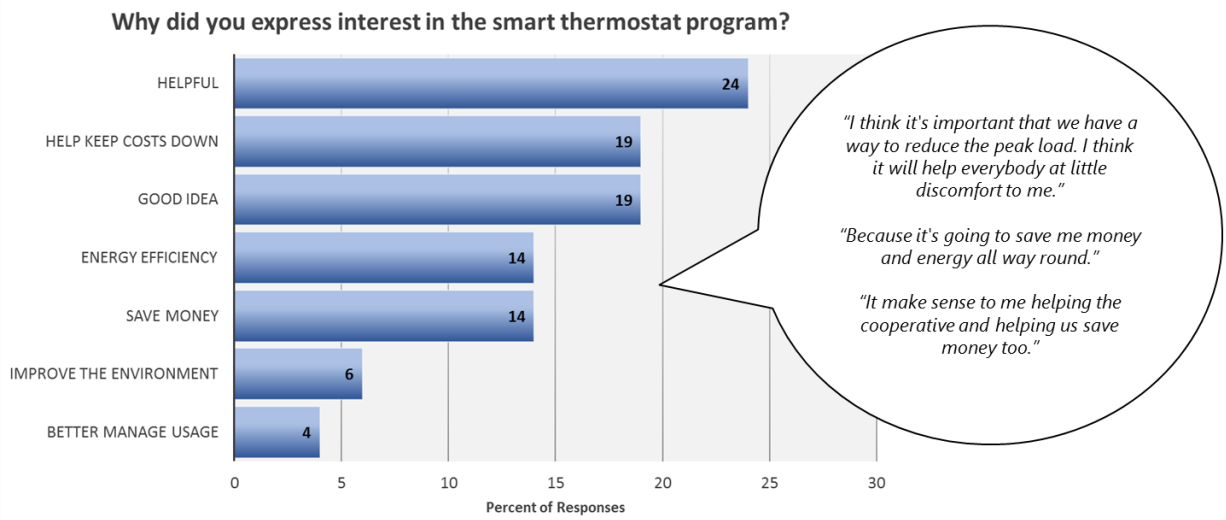


Overall, the smart thermostat program received a high level of interest with more than half of members indicating they were somewhat or very likely to participate. Young members expressed the most interest as did newer members, those with incomes over $150k, households with children, those with high monthly electric bills (> $200) and members living in homes less than 20 years old.

Members who expressed interest in the smart thermostat/demand response program were asked to explain why. The following chart summarizes their open-ended responses:

Reasons for Interest in Using Smart Thermostat Program

2015-2016 Cooperative Difference Survey



When asked to define why they expressed interest in participating in the program, members felt that the program was helpful not only at the household level but also benefited the entire membership.

Controlling energy costs, being more energy efficient and saving money are other key reasons for interest in the smart thermostat/demand-response program.

Looking at those who were not inclined to participate, a small percentage of members felt the presence of a smart thermostat in their home combined with occasional load control would open the door to 'big brother' intruding into their home.

ONLINE ENERGY INFORMATION PORTALS

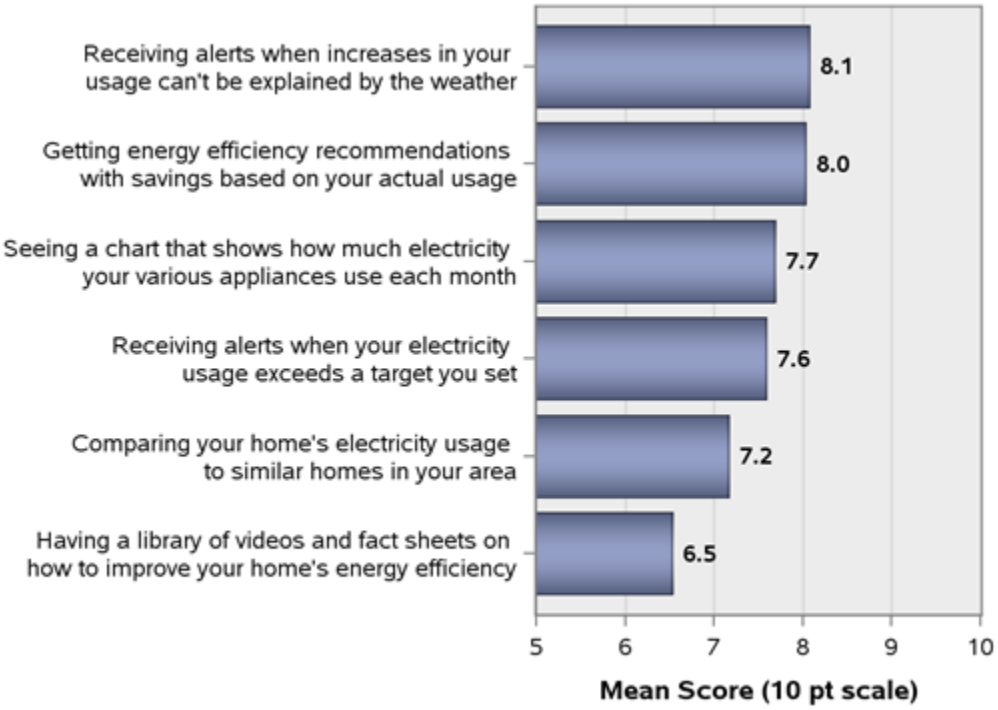
Many cooperatives are leveraging their investments in automated metering infrastructure to provide members with online portals that show their use history. Proactively mining data to notify members headed for a high bill and calibrating savings estimates from energy efficiency with their actual use are our greatest opportunities to enhance these tools.

With the recent purchase of Opower by Oracle and the acquisition of Nest by Google, there are some pretty big players attempting to provide energy information to consumers across the nation, including members of electric cooperatives.

Given the wide range of capabilities energy information portals can provide, the following section explores how important various features are to the member. Members were asked to rate the importance they derived from each feature on a 10-point scale, with a 10 being 'very important' and a one being 'not very important at all.' The following chart shows the mean importance score:

Importance of Energy Usage Portal Features

2015-2016 Cooperative Difference Survey



The chart shows that the most important potential feature of online portals is offering members proactive alerts when increases in their use can't be explained by the weather. Of equal importance are savings recommendations that are based on the member's actual use.

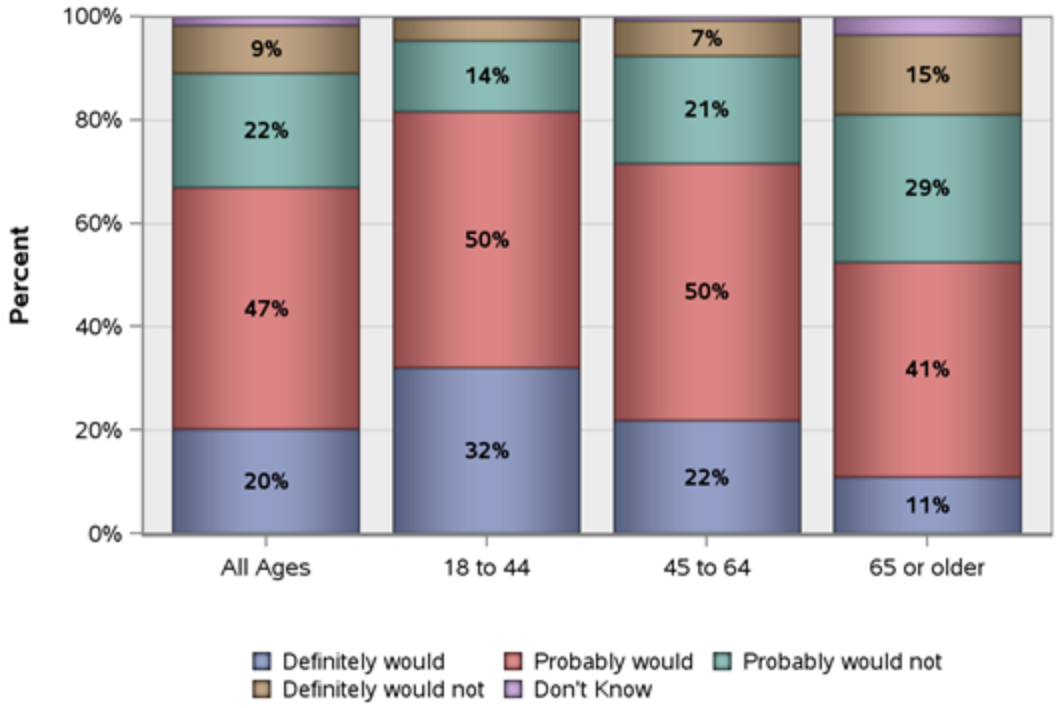
Both of these features imply a greater level of analysis behind the scenes than many cooperatives are currently providing. Upping our game in these areas will create much greater use with our online portals, drive more members to our websites and help them better manage their energy costs.

Of secondary importance were attributes linked to specific appliance use and receiving alerts when use exceeds a certain target level. Importance was lowest for receiving electric use comparisons for similar homes in their neighborhoods and access to a library of energy efficiency tips for the home.

The following chart shows interest in online energy portals by age:

Interest in Using Online Energy Usage Portal

2015-2016 Cooperative Difference Survey



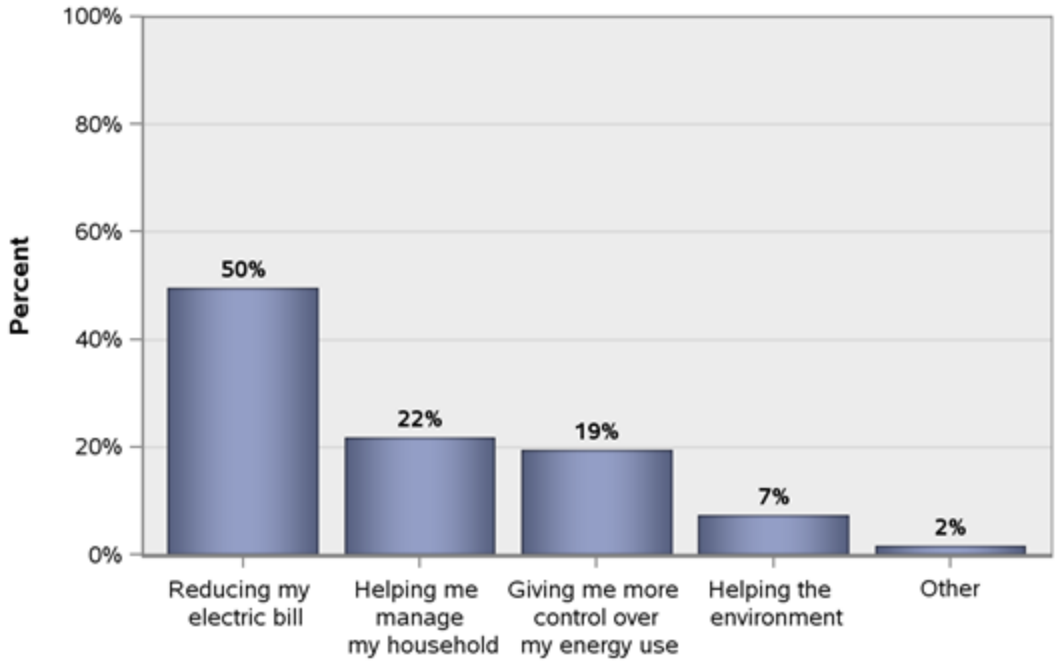
As might be expected, younger members expressed a significantly higher level of interest in an interactive online energy tool. More than 80 percent of 18-44 year old members stated they definitely or probably would use the tool. Interest was also significant among the 45-64 year old membership. Even among senior members, more than half indicated they definitely or probably would use the tool.

Providing member access to an interactive online tool engages members of the tech-savvy millennial generation. These members are comfortable accessing data and, based on survey results, are eager to use these online empowerment tools. The key is to make these applications smarter by proactive mining data to ward off high bills and calibrate savings estimates for energy efficiency.

We next explored what would motivate a member to use an online tool:

Why are you Interest in Using Online Energy Usage Portal?

2015-2016 Cooperative Difference Survey



Simply put, members interested in the interactive online energy portal felt it would help them reduce their electric bill. Members also believed the tool would help them manage their household energy use and expenses and give them greater control, but these motivations were secondary to reducing the bill. Portal users were much less likely to be motivated to use the portal by environmental concerns.

WHO ARE OUR RESIDENTIAL MEMBERS?

Understanding a profile of our membership helps cooperatives meet the challenges of developing communications messages to a diverse audience.

The following provides some insight into the characteristics of member households participating in the 2015-2016 Cooperative Difference Survey:

- More than one-third of members are senior citizens (65+). One out of seven can be classified as super seniors (75+). About one-fifth of our members are under 45 years old.
- One-quarter of members stated their average monthly electric bill falls between $100 and $150 while about one-fifth paid $150 to $200 per month. One out of ten members paid over $250 per month for electric service. Surprisingly, nine percent stated they didn't know the amount of their average monthly electric bill.
- Slightly more than three-quarters of members reside in single family homes.
    - One out of six members lives in a manufactured, modular or mobile home.
    - Fewer than one out of twenty-five members lives in an apartment/condo/townhome.
    - Single family and mobile/manufactured homes record the highest electric bills with apartment/duplex/townhouse/condo owners indicating the lowest electric bills.
- Children are not present in the typical cooperative household. More than seven out of ten households stated they did not have any children under 18 living in their home.
    - When children are present, household income was higher, as were their electric bills.
    - Four out of ten households with children experienced electric bills greater than $200 per month.
    - Households with children were also significantly more likely to view themselves as 'customers' of the electric cooperative.
- The median household size contains two members. One out of six households had one member present while one or two member households accounted for more than six out of ten families. Conversely, larger households were less common as about one out of five had four or more family members present.
    - Electric bills in excess of $200 per month were commonplace for households with three or more family members. More than 50 percent of households with three or more members indicated their monthly electric bill exceeded $200.
- Members' ability to pay their electric bill varies by income. Those with high incomes are in a better position to pay high electric bills. Nearly one-quarter of households stating their average monthly bill exceeds $200 earned more than $100K. Unfortunately, nearly one-third of those stating their electric bill exceeded $200 per month earned less than $50K.
- More than one-third of respondents stated they had been a member of their electric cooperative for more than 25 years.
    - A sizeable number of new members was observed across the membership base. Approximately one-fifth of members had been with their co-op for less than five years.

- Many homes owned by cooperative members could be considered good candidates for energy efficiency upgrades. Nearly six out of ten members indicated their home was at least 20 years old.
    - Conversely, the pace of new construction activity in most cooperative service areas has slowed since the Great Recession. Only six percent of members lived in a home less than five years old.
- Based on the age distribution of cooperative members, it is not surprising that only about one-half of members stated they were currently employed. Employment leads to higher incomes as well as higher electric bills. Just less than five percent of members indicated they were currently unemployed. The national unemployment rate measured by the Bureau of Labor Statistics stood at 4.7 percent in May 2016.
    - Nearly one-half of members indicated they were retired. Retirees earn less income and spend significantly less on their monthly electric bill.
- About one out of three members reported household incomes below $50k with one out of seven earning less than $25k.
    - More than four out of ten senior members report incomes under $50k with one out of five seniors stating incomes under $25k.
    - Low-income households (< $25k) outnumber high-income households ($150k+) by more than a two to one margin.
    - About one out of six member households earn over $100k per year. The majority of high income families are found in middle-aged households (45-64) in their peak earning years.
- The distribution of respondents was split nearly 50/50 between males and females. As stated earlier, females provide significantly higher overall satisfaction, engagement and performance ratings for their cooperative than their male counterparts.

As this report has outlined, rural electric cooperatives are faced with the daunting task of serving a diverse and complex membership. Young and old, rich and poor, technology-savvy and old-fashioned, growing families and retirees of all ages, members come in all varieties. Meeting the future expectations and demands of our diverse membership will be challenging.

Using the information contained in this report will help cooperative leaders and communicators better understand how the unique qualities shared by electric cooperatives can be used to educate future generations about the importance of the ‘cooperative difference.’

CONCLUSIONS

Touchstone Energy cooperatives provide superior service to their membership.
Collectively, cooperatives significantly outperform the utility sector and compare favorably to the best investor-owned utilities in the country as measured by the *American Customer Satisfaction Index* (ACSI).

Cooperatives excel on core services such as reliability, power restoration and problem resolution.
Members have grown to expect nothing less than excellence from their electric supplier and performance measures indicate cooperatives are up to the task. A solid foundation in core services builds trust and allows the cooperative to enter a dialogue that builds engagement with their members.

Building member engagement pays huge dividends.
Members with a high level of engagement with their cooperative provide significantly better performance ratings across all key satisfaction drivers. Highly-engaged members are most likely to advocate for the cooperative and support grassroots or demand response efforts. Unengaged members are dissatisfied with their service and unlikely to support cooperative initiatives.

Community activities build member engagement.
Educating members about our efforts to prepare for and respond to natural disasters, our commitment to energy efficiency, support for fire and rescue, advocacy for affordable energy, our efforts to promote jobs and local businesses and our support for schools and community foundations will drive members to become more engaged with their cooperative.

Communicating our goal to provide electricity at the lowest possible cost is not always heard.
Communication efforts highlighting the cooperative's goal to provide electricity at the lowest possible cost, supported by capital credits, our efforts at cost containment and energy efficiency play a significant role in improving member satisfaction and are critical to building member engagement.

Cooperatives are well positioned as trusted energy advisors for their membership.
While members see their cooperative as the 'go-to' resource for information on energy efficiency and renewable energy, many will also turn to the internet for answers. Cooperatives should invest in their online presence and leverage digital ad strategies so members looking to the internet for answers find balanced and reliable advice from their cooperative.

Members are increasingly interested in renewable energy and embrace a balanced approach.
Offering members an opportunity to participate in a community solar project will help cooperatives meet a growing interest among their membership to embrace renewable energy. . Many members will also respond to on-site solar leases, providing cooperatives with an opportunity to add value.

Value-added services will be embraced by our members.
Online portals and smart thermostat programs will receive broad acceptance from the membership. . Leveraging data from these tools to provide proactive outreach for high usage alerts, calibrated energy savings estimates or the need for system maintenance will generate the greatest value.

Cooperatives serve a technologically sophisticated membership.
Use of computers and the internet is nearly ubiquitous among most member segments. . The presence of smart phones continues to skyrocket, particularly among older member segments while use of landline telephones plummets. . Cooperatives should embrace a multi-channel communication strategy to make sure we are reaching them on these mobile devices.

APPENDIX I: 2015-2016 SURVEY INSTRUMENT

PHONE INTRODUCTION

Hello, may I please speak with **[INSERT MEMBER NAME]**?

(IF MEMBER IS NOT AVAILABLE BUT THIS IS CORRECT HOUSEHOLD AND ADULT IS ON PHONE, CONTINUE)

Hello, my name is **(INSERT NAME)** with Bellomy Research. . I am calling on behalf of **[INSERT CO-OP]**, your electricity provider. We are conducting a survey of **[INSERT CO-OP]** members and would like to include the opinions of someone in this household.

(IF NEEDED ADD: We are not selling anything. This is public opinion research. This call may be monitored for quality assurance purposes.)

SCREENER

HH1. Are you the adult in this household who is primarily responsible or shares responsibility for paying the electricity bill?

[ACCEPT ONE RESPONSE]

1. Yes, I am the primary or shared decision maker
2. No, I am not the primary or shared decision maker **[TERMINATE]**
3. No – RESPONDENT AVAILABLE: **[RESTART AT 2nd PART OF INTRO]**
4. No – RESPONDENT NOT AVAILABLE: **[ARRANGE CALLBACK]**
5. No – REFUSED: **[TERMINATE – CODE AS REFUSAL]**
6. No longer a member of this cooperative **[TERMINATE]**

HH2. To make sure we speak to a representative group of people, which of the following categories includes your age? **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. 18 to 24 years old
2. 25 to 34 years old
3. 35 to 44 years old
4. 45 to 54 years old
5. 55 to 64 years old
6. 65 to 74 years old, or
7. 75 or older
8. **(DO NOT READ)** Refused **[TERMINATE]**

[CHECK AGE QUOTAS BY COOPERATIVE AND TERMINATE IF QUOTA GROUP IS FULL]

QUESTIONNAIRE

HH3. First, think for a moment about your relationship with **[INSERT CO-OP]**. Do you view yourself as a member, an owner or a customer of your electric cooperative? **(DO NOT READ LIST; SELECT ALL THAT APPLY)** **[ALLOW MULTIPLE RESPONSES]**

1. Member
2. Owner
3. Customer
4. Don't Know **[EXCLUSIVE]**

Q1. Please consider all your experiences to date with **[INSERT CO-OP]**. Using a 10-point scale on which 1 means "very dissatisfied" and 10 means "very satisfied," how satisfied are you with **[INSERT CO-OP]**?
[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

Q2. To what extent has **[INSERT CO-OP]** fallen short of your expectations or exceeded your expectations? Using a 10-point scale on which 1 now means "falls short of your expectations" and 10 means "exceeds your expectations," to what extent has **[INSERT CO-OP]** fallen short of or exceeded your expectations? **[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]**

Q3. Forget **[INSERT CO-OP]** for a moment. Now, I want you to imagine an ideal utility company. **(PAUSE)** How well do you think **[INSERT CO-OP]** compares with that ideal utility company? Please use a 10-point scale on which 1 means "not very close to the ideal," and 10 means "very close to the ideal."
[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

Q4. For the next question, assume, for the moment, that you could choose from among more than one utility company. The next time you are going to choose a utility company, how likely is it that it will be **[INSERT CO-OP]** again? Using a 10-point scale on which 1 means "very unlikely" and 10 means "very likely," how likely is it that it will be **[INSERT CO-OP]** again?
[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

Q5A. Please rate your level of agreement with the following statements. Using a scale from 1 to 10 where 1 means "disagree strongly" and 10 means "agree strongly", how much do you agree that **your electric cooperative**...

(READ EACH ATTRIBUTE; REPEAT SCALE AS NECESSARY)

[RANDOMIZE ATTRIBUTES]

1. Provides reliable service
2. Handles complaints and problems promptly
3. Has a goal to provide electricity at the lowest possible cost
4. Communicates with you about electricity costs
5. Gives money back to you when revenues exceed costs
6. Restores power quickly following an outage
7. Keeps you informed when they are doing work in your area
8. Is doing more to control rising prices than other companies you use

Q5B. Again, using that same 10 point scale where 1 means "disagree strongly" and 10 means "agree strongly", how much do you agree that **your electric cooperative**...

(READ EACH ATTRIBUTE; REPEAT SCALE AS NECESSARY)

[RANDOMIZE ATTRIBUTES]

1. Provides a good value for the money you spend
2. Is a name you can always trust
3. Looks out for your best interests
4. Helps you learn to manage your electricity usage
5. Is committed to using renewable energy resources
6. Inspires you to use electricity more efficiently
7. Improves the quality of life in your community
8. Communicates with you about important issues
9. Provides good advice on energy related matters

[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

Q5C. Please rate your level of agreement with the following statements concerning your electric cooperative and the community. Using a scale from 1 to 10 where 1 means "disagree strongly" and 10 means "agree strongly", how much do you agree that your electric cooperative...

(READ EACH ATTRIBUTE; REPEAT SCALE AS NECESSARY)

[RANDOMIZE ATTRIBUTES]

1. Provides support for education and local schools
2. Advocates for national issues like affordable energy
3. Supports foundations that give back to the community
4. Works to attract and retain local businesses and jobs
5. Helps prepare for and responds to natural disasters
6. Supports services like fire and rescue
7. Offers energy efficiency programs

[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

[IF Q5B_009 IN (1,2,3,4,5,6,7)]

Q6A1. You indicated that **your electric cooperative does NOT give good advice on energy related matters**. Why do you say that? **(RECORD VERBATIM)**

_____

[IF Q5B_009 IN (8,9,10)]

Q6A2. You indicated that **your electric cooperative provides good advice on energy related matters**. Why do you say that? **(RECORD VERBATIM)**

_____

[IF Q5B_005 IN (1,2,3,4,5,6,7)]

Q6B1. You indicated that **your electric cooperative is not committed to using renewable energy resources**. Why do you say that? **(RECORD VERBATIM)**

_____

[IF Q5B_005 IN (8,9,10)]

Q6B2. You indicated that **your electric cooperative is committed to using renewable energy resources**. Why do you say that? **(RECORD VERBATIM)**

_____

Trusted Energy Advisor

Q7A. If you had a question about managing your energy use, where would you turn for answers? Would you say…? **(READ LIST; SELECT ALL THAT APPLY)**

[RANDOMIZE; SINK 6; ACCEPT MULTIPLE RESPONSES]

1. Your electric cooperative
2. The internetinternet
3. A local contractor / installer
4. A local hardware or home improvement center
5. Friends and family
6. Other [SPECIFY]

Q7B. What would be your **MOST TRUSTED** resource for answers about managing your energy use? **(READ IF NECESSARY)**

[DISPLAY ONLY RESPONSES SELECTED AT Q7A; ALLOW ONE RESPONSE; IF ONLY ONE ITEM SELECTED AT Q7A, AUTOPUNCH AND SKIP TO NEXT QUESTION]

1. Your electric cooperative
2. The internetinternet
3. A local contractor / installer
4. A local hardware or home improvement center
5. Friends and family
6. Other [SPECIFY]

Q7C. What would you **most like to know** about managing your home's energy use? **(RECORD VERBATIM)**

_____

Q8A. If you had a question about renewable energy such as solar or wind, where would you turn for answers? Would you say… **(READ LIST; SELECT ALL THAT APPLY)**

[RANDOMIZE; SINK 6; ACCEPT MULTIPLE RESPONSES]

1. Your electric cooperative
2. The internetinternet
3. A local contractor / installer
4. A local hardware or home improvement center
5. Friends and family
6. Other [SPECIFY]

Q8B. What would be your **MOST TRUSTED** resource for answers about renewable energy such as solar or wind? **(READ IF NECESSARY)**

[DISPLAY ONLY RESPONSES SELECTED AT Q8A; ALLOW ONE RESPONSE]

1. Your electric cooperative
2. The internetinternet
3. A local contractor / installer
4. A local hardware or home improvement center
5. Friends and family
6. Other [SPECIFY]

Q8C. What would you **most like to know** about renewable energy such as solar or wind? **(RECORD VERBATIM)**

Q9. Next I am going to read you several statements about the environment. Using a scale from 1 to 10 where 1 means "Disagree Strongly" and 10 means "Agree Strongly", how much do you agree that…

(READ EACH ATTRIBUTE; REPEAT SCALE AS NECESSARY)

[RANDOMIZE]

1. Your electric cooperative should take a balanced approach to meeting your energy needs through a mix of energy efficiency, renewable energy and traditional power sources
2. You support environmental regulations such as those that limit the use of coal in generating electricity
3. You would be willing to purchase electricity from renewable sources such as wind and solar even if it cost more
4. Renewable energy like wind and solar is important to our country's future
5. Keeping my electric rates low is more important to me than protecting the environment

[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

Q10. Now, I'm going to read you a list of statements which may describe you and your household. Please indicate whether the statement applies to your household by stating YES or NO.

Do you… **(READ EACH ATTRIBUTE; WAIT FOR RESPONSE; DO NOT READ RESPONSE OPTIONS)**

[RANDOMIZE; ACCEPT YES, NO, or DON'T KNOW FOR EACH ATTRIBUTE]

1. Regularly recycle waste such as newspapers, bottles and cans?
2. Contribute time or money to environmental causes?
3. Only buy cars that get great gas mileage?
4. Only consider appliances with a high energy efficiency rating?

Q11. Electric cooperatives are exploring ways to support growing interest in solar energy that may include building and maintaining a solar farm in your community. You could buy or lease a portion of the farm and the output of the solar panels you support would offset your cost of electricity at your home. How interested would you be in participating in a cooperative-sponsored community solar project?

Would you say… **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Definitely interested
2. Probably interested
3. Not very interested
4. Not interested at all
5. **(DO NOT READ)** Don't know

[IF Q11= 1 or 2]

Q11B. Which of the following reasons **best describes** why you would be interested in the community solar program? **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Reducing my electric bill
2. Helping the environment
3. Giving me more control over my energy use
4. Increasing our energy independence
5. Some other reason (specify)

Q12. Imagine you could lease a solar system that would be installed on your roof or on your property that would allow you to offset your cost of electricity from your electric cooperative. Any excess solar energy you produce could be sold back to them. How interested would you be in leasing an on-site solar system for your home? Would you say… **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Definitely interested
2. Probably interested
3. Not very interested
4. Not interested at all
5. **(DO NOT READ)** Don't know

[IF Q12= 1 or 2]

Q12B. Which of the following reasons **best describes** why you would be interested in leasing an on-site solar system for your home? **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Reducing my electric bill
2. Helping the environment
3. Giving me more control over my energy use
4. Increasing my energy independence
5. Some other reason (specify)

[IF Q11 IN (1,2) AND Q12 IN (1,2)]

Q12C. You indicated interest in both a community solar program and in leasing an on-site solar system for your home. If you had to choose, which would be more appealing to you? **(DO NOT READ)**

[ACCEPT ONE RESPONSE]

1. On-site solar system
2. Community solar
3. I want both
4. Don't know / can't choose

[IF Q12C IN (1,2)]

Q12D. Why would you choose **[Q12C]**? **(RECORD VERBATIM)**

Online Portal / Smart Thermostat

Q13. Your cooperative is looking for ways to help you manage your electricity costs through an interactive online tool. Please tell me how important the following features of this tool are to you. Using a 10 point scale where 1 means "not at all important" and 10 means "very important," how important is: **(READ EACH ATTRIBUTE; REPEAT SCALE AS NECESSARY)**

[RANDOMIZE ATTRIBUTES]

1. Comparing your home's electricity usage to similar homes in your area
2. Receiving alerts when your electricity usage exceeds a target you set
3. Receiving alerts when increases in your usage can't be explained by the weather
4. Getting energy efficiency recommendations with savings based on your actual usage
5. Seeing a chart that shows how much electricity your various appliances use each month
6. Having a library of videos and fact sheets on how to improve your home's energy efficiency

[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

Q13A. Taking into consideration some of the features you just rated, how interested would you be in using this type of on-line tool? **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Definitely would use it
2. Probably would use it
3. Probably would not use it
4. Definitely would not use it
5. **(DO NOT READ)** Don't Know

[IF Q13A IN (1,2)]

Q13B. Which of the following reasons best describes why you would be interested in this service from your electric cooperative? **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Reducing my electric bill
2. Helping the environment
3. Giving me more control over my energy use
4. Helping me manage my household
5. Some other reason (specify)

Q14. Your **electric** cooperative is looking for ways to help you manage your electricity costs through a web enabled smart thermostat. Please tell me how important the following features of a smart thermostat are to you. Using a 10 point scale where 1 means "not at all important" and 10 means "very important," how important is**…(READ EACH ATTRIBUTE; REPEAT SCALE AS NECESSARY)**

[RANDOMIZE FEATURES]

1. Controlling your thermostat using a smartphone or tablet computer
2. Being able to see the current conditions, such as temperature, at your home when you are away
3. Having a thermostat that learns your behavior to automatically adjust temperatures
4. Programming temperature settings to accommodate your daily schedule
5. Being able to diagnose when your heating and cooling equipment needs maintenance

[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

Q15. Assume for a moment you could receive a free smart thermostat from your electric cooperative. In exchange, you would let your electric cooperative send a signal to your thermostat to adjust your temperature setting by a couple of degrees for brief periods during extreme weather days. This would help them reduce demand on the electric grid and hold down costs for everybody. Keep in mind that you could always override their adjustment. Using a 10 point scale where 1 means "very unlikely" and 10 means "very likely", how likely is it that you will participate in this program?

[SCALE; RANGE = 1 – 10; 11 = DON'T KNOW; 12 = REFUSED]

Q15B. Why would you say that you provided that rating for likelihood to participate in this program? **(RECORD VERBATIM)**

TECHNOLOGY

Q16. The next questions are about your household's use of technology.

Do you have access to the internetinternet at your home? **(DO NOT READ LIST)**

[ACCEPT ONE RESPONSE]

1. Yes
2. No
3. Don't Know

Q18 Which of the following devices does your household own? **(READ LIST; WAIT FOR RESPONSE FOR EACH ITEM; SELECT ALL THAT APPLY)**

[ACCEPT MULTIPLE RESPONSES]

1. Desktop PC
2. Laptop
3. Tablet such as an iPad
4. Smartphone such as an iPhone, Blackberry or Android device
5. Landline telephone connection
6. Wireless router
7. **(DO NOT READ)** None of the above **[FIXED; EXCLUSIVE]**
8. **(DO NOT READ)** Don't know **[FIXED; EXCLUSIVE]**

DEMOGRAPHIC SECTION

The last set of questions is for classification purposes only.

D1. On average, how much is your monthly bill for your electric service? **(DO NOT READ LIST. IF NEEDED: YOUR BEST GUESS WILL DO. PROBE FOR AVERAGE MONTHLY BUT TAKE BEST ANSWER.)**

[ACCEPT ONE RESPONSE]

1. $0 to $50
2. $51 to $100
3. $101 to $150
4. $151 to $200
5. $201 to $250
6. $251 to $500
7. $501 to $1,000
8. $1001 or more
9. Don't know

D2. Which of the following is the best description of your home? **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Single family home
2. Mobile home or trailer
3. Apartment, duplex, townhouse, or condominium
4. Pre-fabricated or modular home
5. **(DO NOT READ)** Or something else (specify) _____
6. **(DO NOT READ)** Prefer not to answer

D3. Do you have any children under 18 living at home? **(DO NOT READ LIST)**

[ACCEPT ONE RESPONSE]

1. Yes
2. No
3. Prefer not to answer

D4. Including yourself, how many people live in your home? **(DO NOT READ LIST)**

[ACCEPT ONE RESPONSE]

1. 1
2. 2
3. 3
4. 4
5. 5+
6. Prefer not to answer

[IF D3 = 1, D4 MUST BE > 1 OR PNTA; ERROR MESSAGE: "You indicated there are children under 18 living at home. Please select a number greater than 1 to indicate how many people live in your home."]

D5. How long have you been a member of **your electric cooperative**? **(DO NOT READ LIST; IF NEEDED, YOUR BEST ESTIMATE IS FINE)** **[ACCEPT ONE RESPONSE]**

1. 0-1 year (2014 – 2015)
2. 2-4 years (2011 – 2013)
3. 5-7 years (2008 – 2010)
4. 8-10 years (2005 – 2007)
5. 11-14 years (2001 – 2004)
6. 15-19 years (1996 – 2000)
7. 20-24 years (1991 – 1995)
8. 25+ years (1990 or earlier)
9. Don't Know
10. Prefer not to answer

D6. How old is your home? **(DO NOT READ LIST; IF NEEDED, YOUR BEST ESTIMATE IS FINE)**

[ACCEPT ONE RESPONSE]

1. 0-1 year (2014 – 2015)
2. 2-4 years (2011 – 2013)
3. 5-7 years (2008 – 2010)
4. 8-10 years (2005 – 2007)
5. 11-14 years (2001 – 2004)
6. 15-19 years (1996 – 2000)
7. 20-24 years (1991 – 1995)
8. 25+ years (1990 or earlier)
9. Don't Know
10. Prefer not to answer

D7. What is your employment status? Are you… **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Currently employed
2. Not currently employed
3. A student
4. Retired and/or on a pension
5. Other
6. **(DO NOT READ)** Prefer not to answer

D8. Just for statistical and research purposes, please stop me when I get to your total household income during 2014, before taxes? **(READ LIST)**

[ACCEPT ONE RESPONSE]

1. Less than $25,000
2. $25,000 to under $50,000
3. $50,000 to under $75,000
4. $75,000 to under $100,000
5. $100,000 to under $150,000
6. $150,000 to under $200,000
7. $200,000 or more
8. **(DO NOT READ)** Don't Know
9. **(DO NOT READ)** Prefer Not to Answer

D9. **(DO NOT ASK)** Record gender.

[ACCEPT ONE RESPONSE]

1. Male
2. Female

CLOSE

That completes the survey. On behalf of **[INSERT CO-OP]**, thank you very much for your participation in this survey. Have a great day!

APPENDIX II: BEST PRACTICES KNOWLEDGEBASE: ENGAGING THE COMMUNITY FOR DISASTER PREPAREDNESS

Touchstone Energy® Cooperatives

BEST PRACTICES

KNOWLEDGEBASE

Engaging the Community for Disaster Preparedness

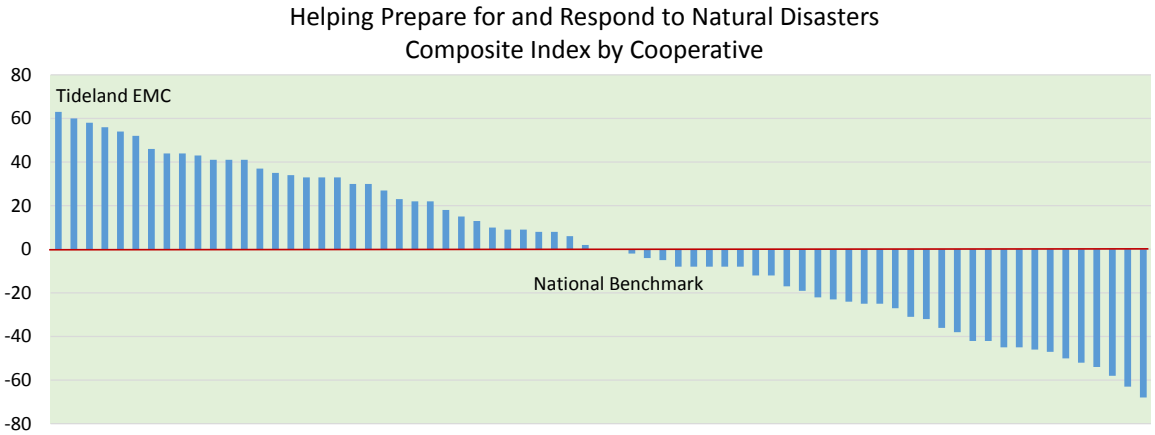
BACKGROUND

Since electric cooperatives were founded in the late 1930s, improving the quality of life in our local communities has been a fundamental part of our mission. Initially, that meant bringing electricity to areas no one else would. Today, members take basic service for granted and cooperatives must look to engage their communities in deeper ways.

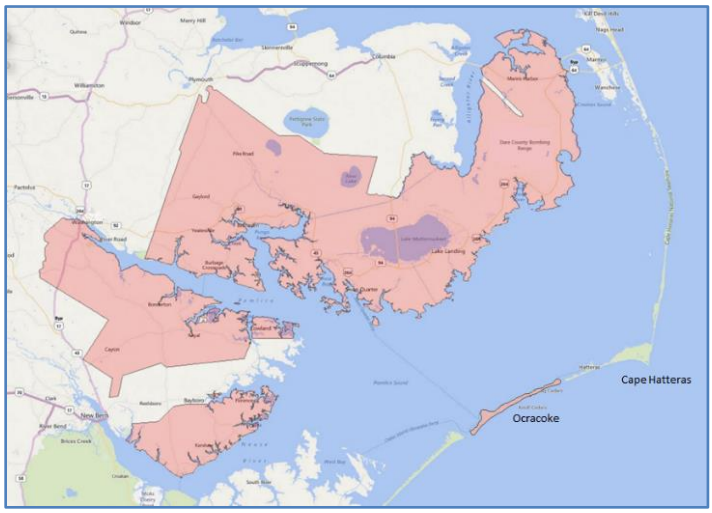
The National Survey on the Cooperative Difference shows us that there is no more important element of our community involvement than preparing for and responding to natural disasters. It does not matter whether a member is young or old, or rich or poor, that number-one priority is the same.

Importance Ranks by Age	18 to 34 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old	65 or older
Help prepare for and respond to natural disasters	1	1	1	1	1
Support services like fire and rescue	2	2	3	3	2
Offer energy efficiency programs	3	3	2	2	3
Work to attract and retain local businesses and jobs	6	5	5	4	4
Advocate for national issues like affordable energy	7	4	4	5	5
Provide support for education and local schools	4	6	7	6	6
Support foundations that give back to the community	5	7	6	7	7

Tideland EMC, a co-op serving coastal communities in eastern North Carolina, outpaced over 70 other co-ops participating in the National Survey on this critical element of community engagement. This paper will describe how Tideland has turned the challenge of adverse weather into an opportunity to build member engagement.



Tideland EMC



Tideland EMC serves over 22,000 members across six coastal counties in eastern North Carolina. Tideland's service area includes the picturesque barrier island of Ocracoke on the Outer Banks and over 250 miles of coastline along the 'Inner Banks' of the Pamlico and Albemarle Sounds.

This maritime environment and its position on the 'chin' of North America's eastern seaboard exposes Tideland and its members to hurricanes, nor'easters, tornadoes, flooding and ice storms that can be devastating to electric grid infrastructure.

Tideland has learned that the best way to handle these challenges is to plan ahead, invest in redundant systems, be willing to spend the money to pre-position resources and proactively communicate with members, before, during and after the storm.

Trial by Water

In late August, 2011, Hurricane Irene made landfall near Cape Lookout, 30 miles across the Pamlico Sound from the southern end of Tideland EMC's territory. Despite having been downgraded to a category one hurricane with winds at 85 mph, its low mercury readings were more consistent with its former strength as a category 3 storm.

Irene was also slow moving, tracking over land for a full 10 hours before it reemerged over the ocean in southern Virginia. The combination of low pressure, heavy rain fall and slow movement translated into a major flooding event for Tideland and its members, particularly as storm surge was pushed up into the bays and inlets of the Inner Banks.

In fact, while most of the national media attention was on the Outer Banks, the real damage was occurring on the other side of the sound. In all, nearly 600 members of Tideland EMC lost their homes, 200 of which have still not recovered from the storm. This led Ben Beagle, Tideland's manager of engineering and operations to conclude:

> "Watch the weather but don't watch the weatherman"

Tideland's experience with this storm taught some important lessons, one of which was to pre-position resources well before the storm, because once it hits, there may be no way to get crews to affected areas.

Paul Spruill, Tideland's general manager and CEO says he prefers to spend $100,000 to pre-position equipment and crews, even if it looks in hindsight to be a wasted effort. The challenge is to not pull

the trigger too soon, because pre-positioning too early may mean putting crews and equipment in harm's way if storm predictions prove inaccurate.

This is particularly important in the case of storms affecting Ocracoke on the Outer Banks. There are no bridges. Everything and everyone must either be flown in or carried by ferry. To inform the decision process, Ben Beagle has a secret resource: a retired NOAA meteorologist with interests on Ocracoke who keeps Beagle up-to-date with his latest predictions and analysis, without the hype so often seen on the national news.

Lessons Learned

Since Irene, Tideland has felt the need to pre-position resources for storm response three times. Only one of these turned out to be a 'false alarm.' On one occasion, an ice storm hit Ocracoke and caused 'galloping lines' where ice on the lines and sustained winds over 50 mph snapped cross-arms, one after the other. The crews were there and ready to go.

The other was Hurricane Arthur, which came ashore on the afternoon of July 3, 2014 as an intensifying category 2 storm, very near the track of Irene three years earlier. By the morning of July 4, Arthur had left 8,800 members without power, with damage along both shores of the Pamlico Sound. Ocracoke experienced wind gusts up to 107 mph and the combination of heavy winds and storm surge broke 45 poles along Highway 12.

In advance of the storm, Tideland pre-staged crews and equipment on both the mainland and Ocracoke. Tideland's 26 full-time linemen were joined in the field by 86 additional linemen from sister co-ops and contractors, more than quadrupling the available manpower for restoration efforts.

By dusk on July 4, the mainland was fully restored and additional crews and equipment were loaded on the first ferry to leave for Ocracoke following the storm. Service was fully restored to Ocracoke less than 48 hours after Arthur had wiped out much of the island's distribution system.

Communications

While pre-positioning men and equipment is an effective strategy to speed outage response, Tideland also believes that it is critical that they communicate before, during and after the storm to keep members informed about the event and Tideland's efforts to recover from it.

Tideland has made communications an enterprise-wide initiative by engaging their linemen as the eyes of the co-op. Linemen are instructed to keep member services informed about what they are seeing in the field so that representatives can be empowered to help members calling in with the latest information.

Tideland has found social media to be a critical tool for keeping members informed about approaching storms and the outage restoration effort. They have found nothing is more compelling in social media than pictures from the field. Linemen are encouraged to take photographs whenever possible to feed content for communication efforts.

When a series of tornadoes impacted the area in 2014, including an EF3 that was on the ground for 21 miles across Beaufort County, Tideland made significant use of aerial photography to survey the damage. When aerial photos were posted on Facebook, they went viral, generating over 38,000 views.

Tideland also believes that keeping members informed about the cause of an outage and the estimated time to restore power is more than worth the risk of being wrong. While they try to provide as accurate an estimate as possible from the outset, Tideland's operations group is not afraid to be wrong. They know social media will provide them a ready channel for updating initial estimates, even when eight hours stretches to twelve.

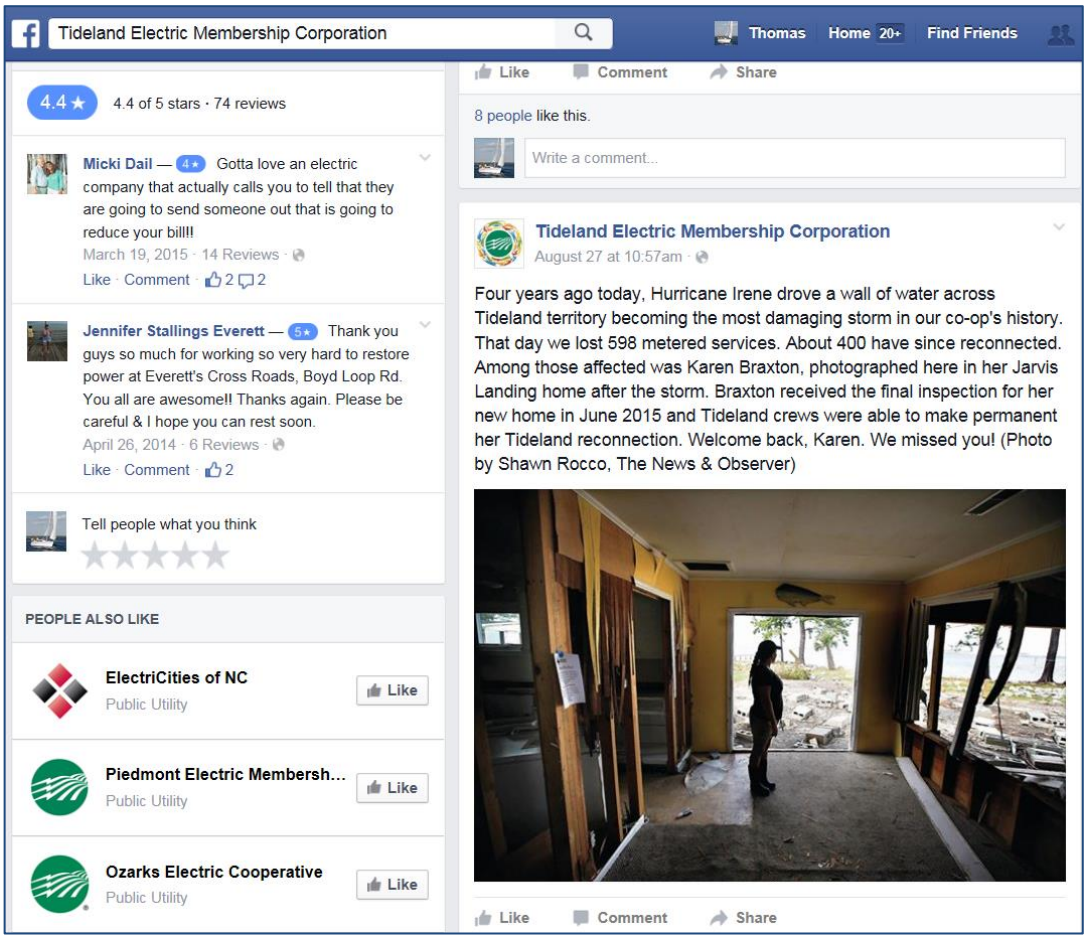
Due to the vagaries of how the newsfeed feature on Facebook may be set by individual users, Tideland makes an effort to go back and modify old posts to provide updates. That way, if a member's newsfeed is not showing the latest posts reporting the progress of the restoration effort, they are not left out of the loop.

Tideland believes it is critical to continue this communication after the storm has passed. Members who had not been directly affected by the storm may not know the extent of damage or the effort Tideland has expended to get power back on. It also gives members who have been following the storm the rest of the story.

According to Heidi Jernigan Smith, manager of economic development, marketing and corporate communications:

> "Many folks don't ever realize just how bad a storm was because they only see what has happened in their own little corner of the world. By showing them the extent of the disaster, especially with pictures, we reinforce how hard the cooperative is working on the behalf of the membership"

Tideland also makes its Facebook and Twitter feeds available on its website so that members who are not active social media users are able to be included in the updates. The following snapshot of Tideland's Facebook page shows an excellent example of how Tideland's commitment to the community can be reinforced with a simple story. Content like this has led to Tideland having 4,350 members 'like' their Facebook page, which is nearly 20 percent of their total membership.



Another benefit of this 'after the storm' communication strategy is how it helps reinforce Tideland's role in coordinating with emergency response agencies at the Federal, State and local level.

FEMA'S ROLE IN OUR DISASTER RECOVERY

Tideland EMC is fortunate to qualify for the Federal Emergency Management Agency's (FEMA) Public Assistance Program. We anticipate reimbursement for storm-related expenses, with FEMA providing 75% of the funding. North Carolina Emergency Management will likely provide the remaining 25%. Officials from both agencies were at our office on September 19 to begin the paperwork. It may take 6 to 8 months before we receive the first reimbursement.

Fun Fact:

Linemen do the Dew

When it comes to quenching their thirst, linemen appear to prefer Mountain Dew to Pepsi. During Hurricane Irene, 2,268 cans of Mountain Dew were consumed versus 720 cans of Pepsi. And to keep drinks and water cold, the co-op used 6,720 pounds of ice.

Tideland itemizes the cost of the recovery effort and translates the costs in ways that members can appreciate. After Hurricane Irene, members were told that FEMA had agreed to reimburse the co-op for $2.8 million of hurricane-related expenses, which translated into $126.65 for every Tideland member and 75 percent of the total cost. They also let members know they were pursuing having the state cover the balance.

To this end, Tideland works closely with local and state agencies in disaster preparedness meetings. As a long time county manager prior to his arrival at Tideland, CEO Paul Spruill has strengthened the co-op's relationship with local emergency management officials and first responders. This in turn has improved preparedness activities, damage assessment effectiveness, resource allocation and power restoration priorities.

Leveraging Technology

Tideland is working to harden its system from storms beyond mere transmission and distribution hardware. It has begun rollover testing of redundant fiber networks for data and is testing off-site server farms to back up its phone system, including investing in a disaster recovery site with its G&T to allow the co-op to continue conducting business if its headquarters is damaged or destroyed.

Tideland is also working to more fully leverage its Outage Management System (OMS) to speed outage response. The OMS is now linked to its Integrated Voice Response (IVR) system for inbound and outbound notification of outage events and to its Customer Information System (CIS) to empower customer service representatives fielding calls from members. Procedures have been put in place that now require linemen to remain at an outage location to allow dispatchers to ping meters to ensure power has been fully restored. That in turn cuts down on costly return trips by line personnel.

KEY WORDS

Communications
Member satisfaction
Outage recovery
Social media

LINKS

National Survey on the Cooperative Difference
American Customer Satisfaction Index (ACSI)

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APPENDIX III: BEST PRACTICES KNOWLEDGEBASE: BECOMING THE TRUSTED ENERGY ADVISOR

Touchstone Energy® Cooperatives

BEST PRACTICES

KNOWLEDGEBASE

Becoming the Trusted Energy Advisor

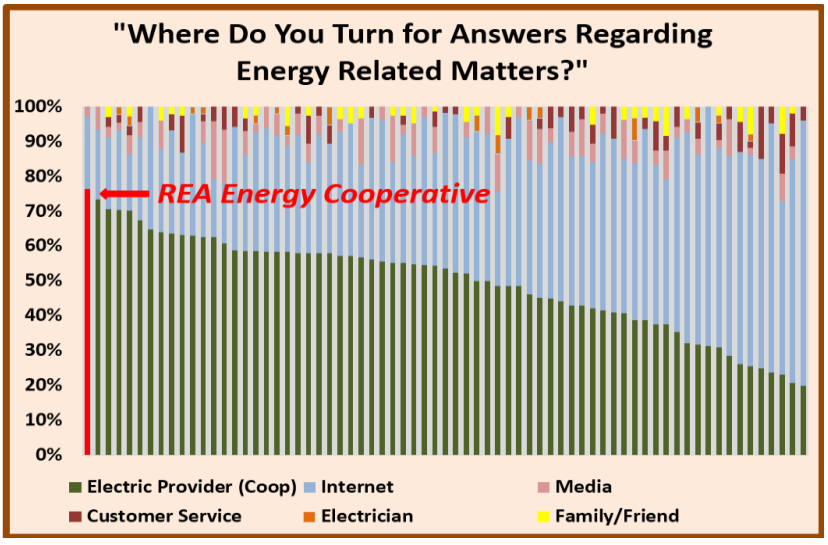
BACKGROUND

What in our busy lives is getting simpler? Very little. With the evolving energy marketplace and explosive growth of new technologies, making choices that impact energy usage can be more complex than ever. How does one keep up with it all? Where do your cooperative members go when they have questions about energy related matters? Whether it's a concern for energy efficiency, a question about environmental impact or uncertainty about how a decision will impact their bottom-line, consumers often look to someone to help find answers. Energy cooperatives want to be that someone.

In Touchstone Energy's National Survey on the Cooperative Difference, survey participants were asked the following question:

> "Think about the last time you reached out for information on an energy related matter…Where did you turn for answers?"

The following chart shows the wide range of responses, with REA Energy Cooperative showing the highest percentage of survey respondents reaching out to their cooperative.



As member-owned entities, cooperatives recognize the importance of the relationships they have with members. Serving as an advisor to those members in energy related matters is a vital component to member satisfaction. This paper explores how REA Energy Cooperative has distinguished itself to its members as their "Go To" energy advisor.

REA Energy Cooperative

REA Energy Cooperative, headquartered in Indiana, Pennsylvania, serves just under 23,000 members in rural Pennsylvania, northeast of the Pittsburgh metropolitan area. REA serves primarily rural residential accounts, with just a few developed communities outside of Indiana.

Being the Trusted Expert

REA Energy Cooperative's role as their members' "Go To" energy advisor is the result of providing a comprehensive blend of advice and solutions. The cornerstone that supports this two pronged approach is a strong foundation of trust. Stacy Patterson, Communications Coordinator, emphasizes that REA has always been highly member oriented, fostering the trust of the people they serve - a true partnership.

REA Energy Cooperative has long been more than just a deliverer of electricity. With the advent of their water heater load management program in 1995, which is still going strong today, the cooperative has advised members on how to use energy wisely. In addition to load control, REA offers energy efficiency programs including dual fuel off-peak heating incentives, other off-peak appliance controls, and an energy thermal storage heating program. A heat pump program is currently being considered.

REA Energy Area Meeting

REA Energy Cooperative strives to be identified by their members as their best source of reliable information on all energy issues. This applies even to technologies not readily available. While solar power is not currently a viable option in REA's area, it is an expanding technology often mentioned on the news and in other media outlets. To maintain its role as the expert and to be able to accurately address its members' inquiries, REA is staying abreast of developments in the solar market and looking into possible options for future applications.

Reliability – That Old Yard Stick Does Matter

REA Energy Cooperative points to their much improved reliability statistics in recent years as another reason for trust from their members. Regular outages used to be a problem. No major extended outages in several years and quick response times for localized service issues displays the cooperative's dedication to excellent and trustworthy service. A special emphasis of politeness by linemen and all personnel who directly assist members during outage situations further underscores the cooperative's partnership approach.

Offering Guidance in a Changing Environment

Recently, a sluggish economic environment has seriously impacted REA Energy Cooperative's communities. Their largest commercial and industrial accounts are coal mining operations and a gas drilling operation. Changing EPA regulations and the recent drop in oil prices are causing slowdowns and closures in this important sector.

Reduced production is in turn causing scarcity in readily available energy resources. This is an unwelcome development with many older homes equipped with coal and oil burners as their primary heating source. Energy that was once cheap and available is no longer. Members are being forced to switch to more modern methods of heating, and REA Energy Cooperative is on hand with guidance on how to get the most out of their money.

REA Energy Services – Solutions from the Experts

REA Energy Services, a wholly owned for-profit subsidiary, allows REA Energy Cooperative to go beyond offering advice to offering solutions. REA Energy Services provides innovative new products and services sought by the membership. Sales and installation of various electrical services and heating, ventilation, and air conditioning products are available to both members and non-members throughout the service territory.

REA Energy Home Show Booth

Chad Carrick, Business Development Manager, describes the mission of REA Energy Services this way:

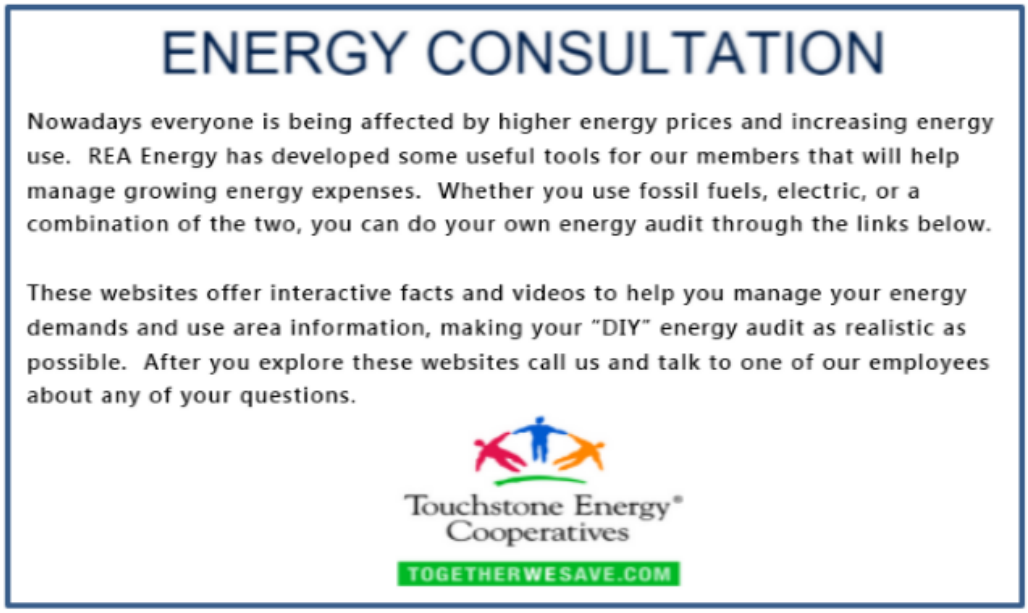
> "When somebody calls in, we are not focused on making the sale (like a Home Depot would be). We want our conversations to always be rooted in the consultation. If the potential customer is interested, then the transaction may become a sale. REA Energy Services is for-profit, which benefits our members, but our philosophy is more than just looking for the sale. We are looking for load and for a solution that's best for our members."

REA Energy Services' approach emphasizes the educational value of what they offer to their members and non-members alike. Delivering trusted information into the hands of the consumer allows consumers to make informed decisions. REA Energy Services' reputation of approaching projects as an advisor, rather than as a sales entity, further enhances trust within their community and builds member engagement.

Addressing Usage Inquiries

REA Energy Cooperative works with members who have questions about their usage or high bill complaints. They have found that member inquiries can be adequately addressed by educating the member on how their usage is billed and how their usage habits impact those bills. REA does not offer audits. REA believes the information gained from the audits does not warrant the investment in equipment, licensing and training required of its employees, nor the time and fuss required of the member.

As an alternative to an on-site audit, REA provides links to a library of online resources and invites members to call with any questions. REA also recommends tools and resources provided on Touchstone Energy's web site *TogetherWeSave.com,* and offers further consultation on questions and issues that arise.



Members with inquiries are shown their daily usage history, which leads to a conversation about what goes on in their home, and when. This will typically lead to crafting a solution that will enable the resident to better manage their electric usage.

Businesses are given their load data and an education on how load factor impacts their costs. From there, the discussion often progresses to potential options for modifications that can be made to their equipment to increase efficiencies.

Owning the Expertise – Your Energy Consultant

Both REA Energy Cooperative and REA Energy Services rely entirely on internal staff to offer energy advice and solutions. In addition to training given by the co-op, most installers and other technical employees are hired from the trade industry, some having experience in running their own businesses. REA ensures that all training requirements are kept current.

THE ADVANTAGE OF CO-OP MEMBERSHIP: REA Energy Load Management Technician Mike Brocious, left, discusses one of the programs offered by the cooperative's subsidiary, REA Energy Services, with a member at the District 2 Area Meeting.

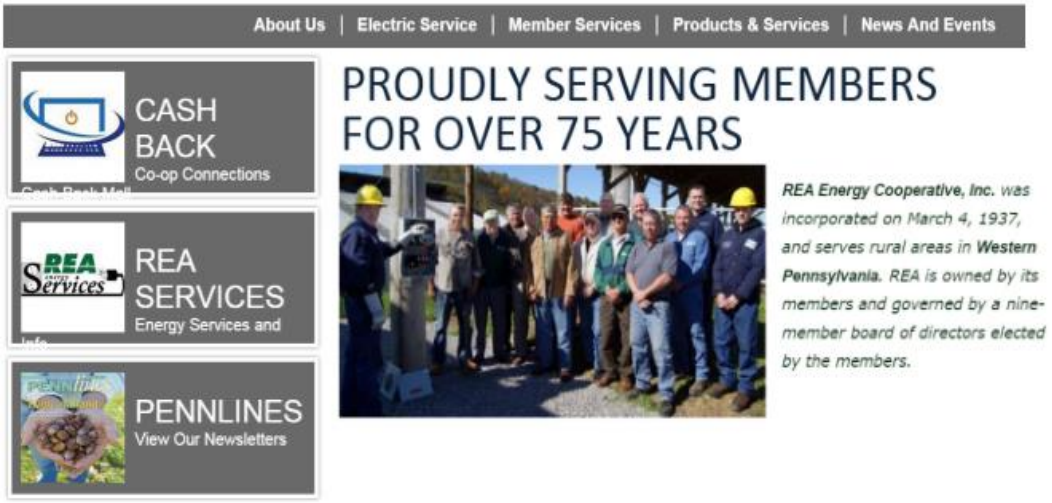
Getting the Message Out – Accessible Information

REA Energy Cooperative strives to provide the expertise and solutions that its members are looking for. The final component to their success as the "Go To" advisor is making sure their members remain aware of this.

REA delivers its message using varying methods targeted toward the different segments of its membership. Their comprehensive communications plan is designed to reach every demographic, delivering a consistent message to all market segments.

Annual meetings, IVR system broadcasts, bill inserts and traditional media advertisements reach many members, including a third of the membership who do not have internet access. Emails and text messaging are also used.

Facebook, Twitter, and REA's web site are reliable vehicles for the younger group. REA has a large Facebook reach, as was demonstrated by a recent warning about utility imposters that was shared over 2000 times. The monthly magazine, *Penn Lines*, also has a very high readership.



Stories of Success

By providing the consultation and solutions that their members are looking for, REA Energy Cooperative has empowered their members to save energy. Along the way, REA has become a trusted partner.

REA's Chad Carrick is thrilled that their efforts have been worthwhile and shares the following anecdote as an example of the cooperative's success.

When a large key account constructed a new soybean processing plant on REA's system, they sought out REA Energy Services to install all of the wiring throughout the plant and serve as sole consultant on all machinery-related decisions. The company's goal was to get things done right and keep energy usage to a minimum. They trusted REA to deliver, and they did:

"The employees [of REA Energy Services] have done a great job, and I am very happy with the work they have done. The service has been outstanding and I am very happy with the relationship we have developed."

– Rick Fabin

Fabin Project Installation

KEY WORDS

Communications
Energy Efficiency
Energy Advisor
Energy Solutions

LINKS

Touchstone Energy Cooperatives
REA Energy Cooperative
TSE Services

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