SMART ENERGY
CONSUMER COLLABORATIVE

CONSUMER PULSE AND MARKET SEGMENTATION

WAVE 9

AUGUST 2025

Cobb EMC

CPS Energy

Electricities of North Carolina, Inc.
The energy behind public power

ICF

Touchstone Energy® Cooperatives

The Harris Poll
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SMART ENERGY CONSUMER COLLABORATIVE

Working for consumer-friendly, consumer-safe smart energy

SECC's mission is to serve as a trusted source of information on consumers' views of grid modernization, energy delivery and usage, and to help consumers understand the benefits of smart energy.

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August 2025

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INTRODUCTION

Since the Smart Energy Consumer Collaborative (SECC) began taking the pulse of energy consumers and inviting stakeholders from all facets of the industry to join the conversation, we have periodically updated our *Consumer Pulse and Market Segmentation* research. This report reflects the ninth wave and provides timely, actionable information to industry stakeholders on the following:

- What consumer attitudes and expectations are trending in today's energy environment.
- How consumers feel about the energy services they receive today.
- If consumers are engaging with their providers in partnership to shape the energy future.
- New developments consumers are excited about and the concerns they have as they look to the future.
- How providers can deepen engagement with consumers through the outreach and programs they offer.

We begin by highlighting important shifts in the electricity industry that can provide a foundation for understanding the changes underway as well as pointing the way toward new program designs and engagement strategies in this new reality.

Today's Electricity Ecosystem

SECC's focus has always been giving voice to consumer attitudes, expectations and concerns in our continuing effort to help industry stakeholders understand each other and work toward mutually beneficial goals. In this environment of change, context is very important.

Consider these recent demand growth estimates from ICF, an international energy consultancy firm:[1]

- U.S. electricity demand is expected to accelerate over the next 20-30 years. ICF's latest projection expects demand to grow 25% from 2023 to 2030 and by 78% by 2050, driven by the pace of data center deployment and industrial growth. This growth is likely to require double the investment in new capacity, from an average of 40 GW annually to 80 GW annually.
- Under current demand management programming, only about 10% of this growth can be absorbed. Other resources must be brought to bear – one example is utility-led distributed energy resources (DERs). Successful models are emerging in Xcel Energy and Exelon territories, and many other providers have small-scale programs underway. However, scaling these resources from demonstration to system-wide functionality is no small task.[2]

ICF also **predicts residential electricity rates in the U.S. could rise 15-40%** over the next 5 years and double by 2050. While a projection like this may be shocking for industry insiders, it is even more troublesome for consumers, 31% of whom struggled to pay their electricity bill in the last 12 months (up from 25% just 2 years before).[3]

Many struggling consumers try to decrease their bills by lowering heat and A/C consumption (48%), reducing appliance usage (37%) and replacing inefficient bulbs with LEDs (29%). These actions are often not enough to bring electricity costs within reach, especially for those with limited incomes.

While many providers offer assistance programs to help, consumers often don't know about them or don't have the wherewithal to pay for improvements.

Only 18% are aware of energy-efficient HVAC rebates.

Only 16% know about money-saving rate plan options.

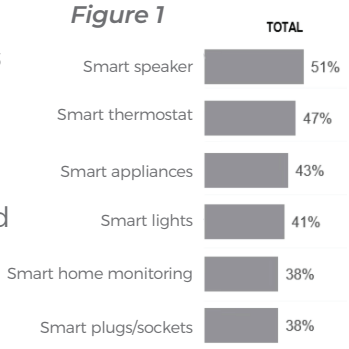
Only 15% of these consumers recall seeing an offer for an energy audit.

12% of these consumers say they can't afford energy-saving home improvements.

The ENERGY STAR® program could be on the chopping block. This long-standing program encourages appliance efficiency and provides consumers with actionable information and financial incentives to purchase energy-efficient appliances. The U.S. Environmental Protection Agency estimates the program has saved more than 5 trillion kilowatt-hours (kWh) of electricity since 1992. More than $100 billion of ENERGY STAR products are sold each year, and a 2022 survey found that 89% of American households recognized the ENERGY STAR label. Fifty-seven percent of the survey's respondents who had knowingly purchased an ENERGY STAR product in the past year said the designation was very or somewhat influential in their purchasing decision.[4] It is difficult to predict the impact this program's termination would have on consumer behavior, but change would be certain.

The ownership of smart devices in the home continues to rise. (*Figure 1*) As technology adoption throughout the home rises, these devices offer unique opportunities for consumers and providers to improve efficiency without manual intervention.

Figure 1



In this *Consumer Pulse and Market Segmentation – Wave 9* survey, over half of our respondents (51%) owned a smart speaker.

[1] https://www.icf.com/insights/energy/impact-rapid-demand-growth-us
[2] https://www.utilitydive.com/news/utility-distributed-energy-der-miso-resource-adequacy-shah/750936/
[3] https://smartenergycc.org/addressing-energy-affordability-infographic/
[4] https://www.scientificamerican.com/article/the-epa-plans-to-terminate-the-energy-star-program-heres-what-that-means/

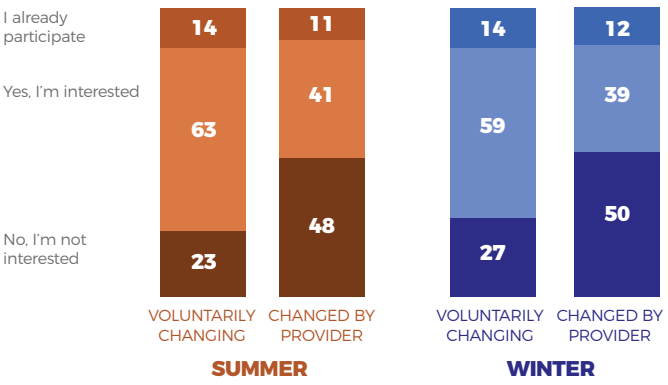
Smart speakers offer broad home management and entertainment options. Some of our respondents (23%) already use their speakers for energy monitoring.

Just under half (47%) own a smart thermostat, and 43% own at least one smart appliance, such as smart lights (41%) and smart plugs (38%). These devices are targeted directly at home management and energy efficiency. They often operate in the background, making it easy for the consumer to reap the benefits without acting beyond the setup stage.

For example, many consumers already participate or express interest in **seasonal demand management programs**. (*Figure 2*) These consumers help their electricity providers stabilize the grid and may help postpone some capital investments in generation and transmission infrastructure that will drive up the cost of electricity.

Figure 2

INTEREST IN DEMAND RESPONSE PROGRAMS (%)



While some consumers aren't keen to cede control to their provider, there is ample opportunity to let the technologies in the home do the intervention automatically. Adoption of technologies that manage demand response (DR) and automate energy management in the home will not be an easy or sure path for providers or consumers. In our research, consumers have expressed some **concerns about the use of technology and artificial intelligence (AI)** in automation programs. (*Figure 3*)

Consumers want to be told when and how their data is being used (82%) and that their data is kept secure (79%). This security assurance will be enough for early adopters of technology.

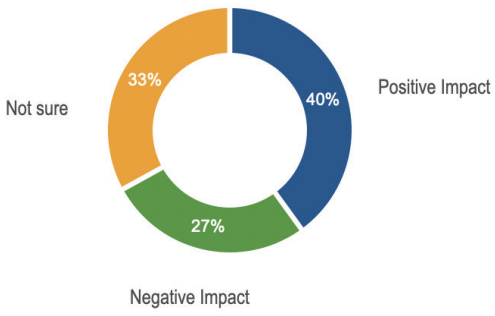
Figure 3: Technology Attitudes of U.S. General Population

Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682
QTECHATTITUDES. Next, we want to ask you about technology. How strongly do you agree or disagree with each statement below?

That said, most consumers (71%) are not early adopters. Consumers in this camp will need encouragement, education from a trustworthy source and assistance throughout the technology adoption process before they embrace technologies that manage their electricity usage automatically.

If the technology of choice involves AI – an increasingly important function in many home management technologies – consumers will need to get familiar and comfortable with the control they are ceding to their technology. Most respondents were aware of AI and have had some exposure to applications that use it (66%). That said, their assessment of the effects of AI on society are mixed – 40% expect a positive effect, while 27% expect negative effects. One-third are unsure about which way the pendulum will swing. (*Figure 4*)

Figure 4: How Will AI Affect Society?



Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682)
QAIImpact. Overall, do you think AI (artificial intelligence) systems are having a positive or negative impact on society?

Consumers have very different opinions about the use of technology as they manage their energy use. We will highlight these differences and others as we dive into each consumer segment in the balance of this report.

INTRODUCING THE NEW CUSTOMER SEGMENTATION

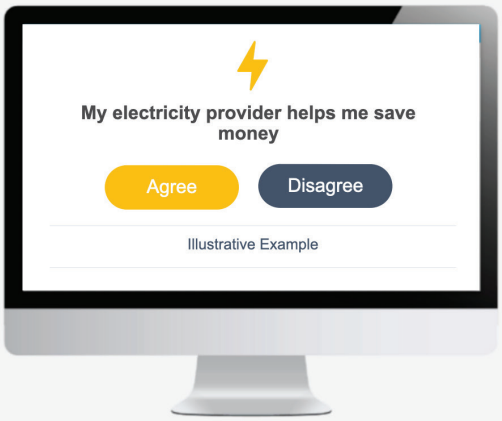
Each time we conduct our *Consumer Pulse and Market Segmentation* survey, we look for the best way to differentiate among consumers based on their attitudes, priorities, behaviors and concerns around energy. While our objective never changes, the factors that help us differentiate among groups of consumers evolve with the electricity ecosystem. We have just highlighted the pressures influencing the electricity ecosystem today. We now dedicate the remainder of this report to understanding consumer perspectives and highlighting how this understanding can deliver deeper engagement and positive outcomes for all participants in the ecosystem.

Survey Methodology

This study was conducted using a 20-minute online survey fielded from April 30 to May 7, 2025, with a sample of 2,000 American consumers responsible for energy decisions in their household. Once completed, the survey data was weighted to U.S. Census statistics around age, gender, region and income.

In this survey, we asked about electricity attitudes, priorities and concerns, interest in and use of technology to manage electricity usage, relationship and engagement with their electricity providers, and energy management behaviors and demographics. When asking about their relationship with their electricity provider, we applied an approach called Implicit Association Testing (IAT), where respondents are shown a series of statements and asked if they agree or disagree with whether each statement applies to them. A short reaction time to agreeing or disagreeing with a statement shows implicit association, i.e., an instinctive reaction and strong emotional connection (System 1). A longer reaction time is an explicit association, as it requires slower and more rational thinking (System 2). This provides a deeper understanding about the relative importance of the opinions being investigated. (*Figure 5*)

Figure 5: What Is Implicit Association Testing (IAT)?



Reaction time testing provides the means by which psychologists can discriminate subconscious brain processes from conscious thoughts or decisions. This is because conscious and subconscious mental processes occur within different timeframes, allowing for two distinct paths for decision making:

System 1
- Unconscious Emotions
- Very Fast
- Involuntary
- Associative
- Implicit Responses

System 2
- Conscious Thinking
- Slow
- Controlled
- Rule Following
- Explicit Responses

Four New Consumer Segments

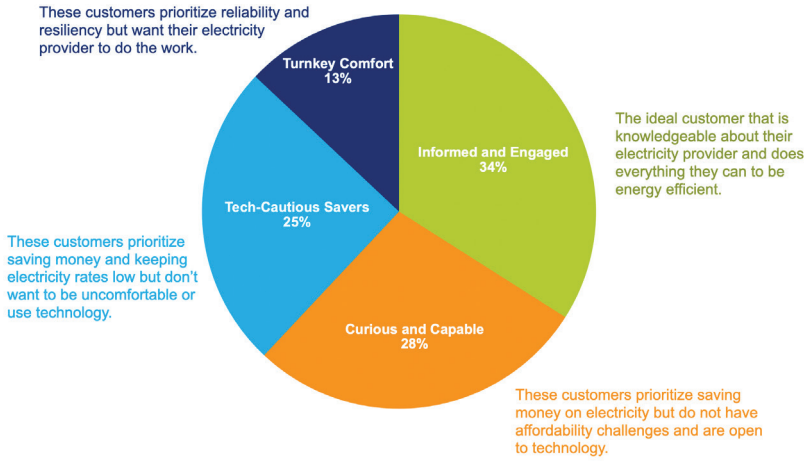
As we analyzed the data from this survey, we found that consumers can be divided into segments driven by a combination of:

- **Technology Attitudes:** How strongly do you agree or disagree with a variety of statements about technology?
- **Electricity Attitudes:** How strongly do you agree or disagree with statements about your electricity usage?
- **Electricity Priorities for Themselves:** When it comes to your electricity, what is most important to you?
- **Electricity Priorities for Their Providers:** What do you want your electricity provider to prioritize?
- **Electricity Concerns:** How concerned are you about various aspects of electricity?
- **Most Concerning Aspect:** Which one are you most concerned about?

We have defined 4 clusters of consumers in this latest segmentation framework. The figure below outlines each segment and estimates the occurrence of consumers within the general population exhibiting similar attitudes and behaviors. (*Figure 6*)

We characterize the Informed and Engaged and the Curious and Capable segments (together 62% of the population) as the most favorable to energy efficiency, demand response and the use of technology. For providers, these are consumers who are most likely to participate in existing programs (the Informed and Engaged) or are the best opportunity for future growth (the Curious and Capable).

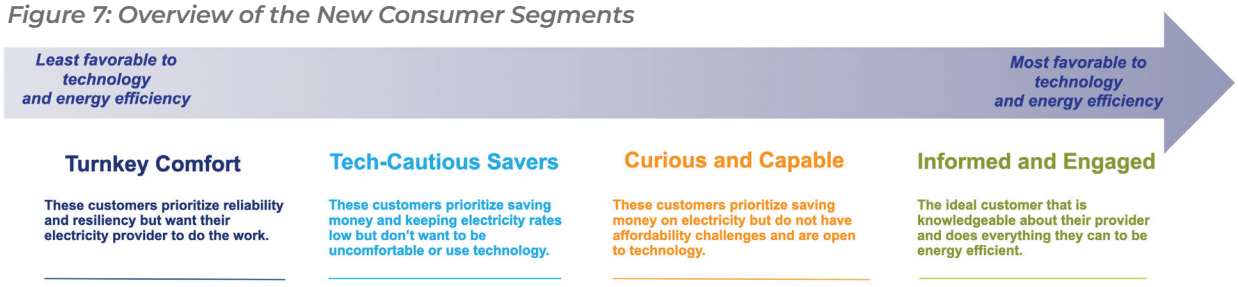
Figure 6: The Latest Wave of SECC's Consumer Segmentation



The Tech-Cautious Savers and Turnkey Comfort consumers (38% of the general population) will be more challenging for providers to engage. They are the least favorable toward energy efficiency and technology. They may be difficult to identify since they are unlikely to be in touch with their provider or participate in energy efficiency programs – especially those that involve technology. (*Figure 7*)

This summary sets the stage for a deep dive into each consumer segment – what makes each one unique and how providers might encourage engagement and action.

Figure 7: Overview of the New Consumer Segments



THE INFORMED AND ENGAGED CONSUMER

The ideal customers in the modern electricity ecosystem. They're knowledgeable about their providers and do everything they can to be energy efficient.

Most favorable to technology and energy efficiency

- Proactively review their bill
- Reduce usage during peak times
- Use technology to manage electricity

34%
of the population

- 70% under age 55
- 60% college educated
- Most likely to have children in the household

Energy and Technology Attitudes In Depth

Each of the SECC segments is identified first and foremost based on their energy and technology priorities. Looking back to previous segmentations, there has always been a segment of consumers that prioritizes environmental protection and energy efficiency. Now, these are the Informed and Engaged consumers – 34% of the population.

Figure 8

78% **It is important to protect the environment for future generations.**

52% **I purchase environmentally friendly products whenever I can.**

50% **Environmental concerns are a major factor in who I vote for.**

For this segment, energy efficiency leads the way in their attitudes, the choices they make and the actions they take. One distinguishing demographic characteristic – having children in the home – may be one clue about why protecting the environment is important to so many of them (78%). And we can see how their core environmental values play out in the energy choices they make – around half of them consider the environment in the products they purchase (52%) and when they cast their ballot (50%). (*Figure 8*)

These consumers understand that reducing their electricity usage helps grid reliability and the environment (cited by 94% and 96%, respectively). They also try to do everything they can to reduce their electricity bill (90%). While most consumers in other segments also share these attitudes, consumers in this segment are nearly unanimous in their understanding of and their actions around their electricity usage.

Consumers in this segment use technology to help them meet their energy efficiency priorities, and they're willing to pay for it. They are the most likely segment to leverage automated technologies to monitor and control their usage. And they are a valued source of information for their friends and family regarding technology. (*Table 1*)

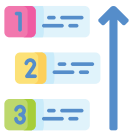
Table 1: Attitudes of the Informed and Engaged Consumer

	Attitudes	Informed and Engaged	General Population
Electricity Attitudes	Reducing my electricity usage helps the reliability of the electric grid	**94%**	**86%**
	Reducing my electricity usage helps the environment	**96%**	**86%**
	I do everything I can to reduce my electricity bill	**90%**	**79%**
Technology Attitudes	I always look for ways technology can improve my life/help me	**89%**	**68%**
	I don't mind spending a lot of money on technology if it improves my quality of life	**74%**	**56%**
	Friends and family ask me for opinions and advice on technology	**70%**	**50%**

Electricity Priorities

The top energy priority for most consumers – 45% for these Informed and Engaged consumers – is "saving money on my electric bill". (*Table 2*) This has been a consistent theme throughout our long-running *Consumer Pulse and Market Segmentation* surveys, and it is no surprise here. Running a very close second for the Informed and Engaged consumers is their interest in "making my home energy more efficient" (44%).

Table 2: Top 2 Energy Priorities for Consumers and Their Providers

Top 2 Energy Priorities	Informed and Engaged	Curious and Capable	Tech-Cautious Savers	Turnkey Comfort
Consumer Priorities 	**Saving money on my electric bill**	**Saving money on my electric bill**	**Saving money on my electric bill**	*Ensuring my electricity is never interrupted*
	Making my home more energy efficient	**Making my home more energy efficient**	*Having low energy rates*	**Saving money on my electric bill**
Provider Priorities 	**Keeping energy rates affordable**	**Keeping energy rates affordable**	**Keeping energy rates affordable**	*Its ability to meet electricity demands of customers and minimize outages*
	Helping me save money on my electric bill	**Helping me save money on my electric bill**	**Helping me save money on my electric bill**	**Keeping energy rates affordable**

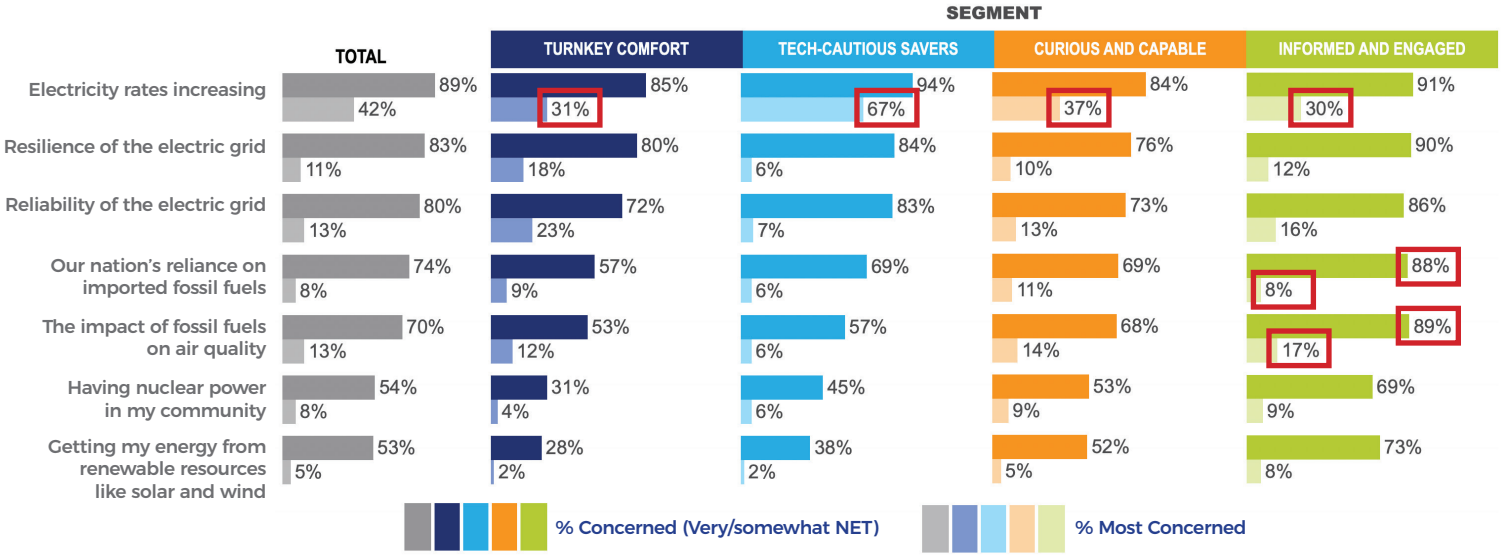
When asked about priorities for their electricity provider, most segments cite "keeping energy rates affordable" as their top priority. Programs and offers designed to address rate affordability will resonate across all segments. They offer broad coverage as a priority shared by all consumers. Also, recognize that it is the Informed and Engaged consumers who will be the most likely to respond to these or any other message. They're already engaged, already listening and already acting.

> **It is the Informed and Engaged consumers who will be the most likely to respond to these or any other message.**

Electricity Concerns

As with priorities, cost-related concerns rise to the top for consumers across all segments. The overwhelming majority of consumers are concerned about rate increases. (*Figure 9*) For the Informed and Engaged, 91% cite concern over these increases and for 30% of them, this is their top concern. Concerns over fossil fuels – "dependance on fossil fuels" (88%) and "the impact of fossil fuels on air quality" (89%) – are visibly more pronounced in this segment than others. For 17% of these consumers, air-quality concerns associated with fossil fuels are their top priority, second only to their concern over rate increases. This is a direct reflection of their environmental attitudes.

Figure 9: Top Electricity Concerns Among All Segments



"Sorted descending among "Concerned (NET)" on Total
Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682)
QELECTRICITYCONCERNS. How concerned are you about each of the following?
Base: "Very concerned" - Total (n=1,491); Turnkey Comfort (n=139), Tech-Cautious Savers (n=419), Curious And Capable (n=296), Informed And Engaged (n=637)
QMostConcerned. You mentioned you are very concerned about the below. Which one are you most concerned about?

Engagement With Electricity Providers

The Informed and Engaged are the most likely to have had contact with their electricity provider in the last 12 months (58% have done so). Like the other segments, contact about usage/their bill is the most common impetus for contact (30%), followed by reporting an outage (19%).

Where this segment differs from others is their higher propensity to contact their provider about energy efficiency solutions; 18% have been in touch with their provider on this issue within the past 12 months. (*Table 3*)

Table 3: Provider Engagement by the Informed and Engaged Consumer

Engagement with Provider in Past 12 Months	Informed and Engaged	General Population
Usage/my monthly bill	30%	23%
To report or check on an outage	19%	20%
Rate plan	15%	11%
Energy efficiency	18%	10%
New technology	14%	9%
Renewable energy alternatives	12%	7%
Rebates/credits	9%	6%
Electric vehicles	6%	4%
Moving my service to another address	8%	6%
Other	2%	1%
I have not had any contact	42%	51%

As we look at why consumers have engaged with their providers, this table also gives us a few clues. More than the general population, this group has talked with their provider about technology, renewable energy, rebates and credits, and EVs. This is evidence of their continuing attention to their electricity usage and engagement with their providers to help them reach their energy efficiency goals.

Working With These Consumers

The Engagement Mantra: Deepen engagement and build a real partnership.

These consumers are open to new ways of incorporating energy efficiency into their lives, and this makes them great partners for pilot programs. The trust they grant to their electricity provider makes them less skeptical of new programs and technologies, so providers should be encouraged to engage them early and often. They are intrinsically motivated to participate because they value the environment alongside saving money. Messages containing these elements will likely gain traction.

Though Informed and Engaged consumers are more likely to already be in touch, there is ample room for more engagement. They have a propensity to involve their provider in energy-efficiency conversations (51% have done so), making every contact an opportunity to deepen the partnership:

- **Follow up with consumers who have participated in energy efficiency programs.** Ask about their satisfaction with the programs they've participated in and probe for ideas for new programs or adjustments to existing ones by understanding their concerns.
- **Let them know what else is available,** including time-of-use (TOU) rate plans, energy efficiency and new technology rebates, and new programs, particularly pilots, for which you're looking for early adopters.
- **Make sure that energy efficiency offers are promoted in digital ads and online searches** so these tech-savvy consumers will find them.

> **Though Informed and Engaged consumers are more likely to already be in touch, there is ample room for more engagement.**

THE CURIOUS AND CAPABLE CONSUMER

These consumers prioritize saving money on electricity even though they do not have affordability challenges. They are very open to using technology to simplify their life.

Look for ways technology can improve their life

- Say their bills are affordable
- Own smart devices
- Not proactive about energy efficiency

28%
of the population

- Youngest segment
- Most likely to live in multi-unit housing and rent

Energy and Technology Attitudes In Depth

At 28% of the general population and the most opportune for future growth, the Curious and Capable are an important group to understand. SECC leans heavily into consumer attitudes and behaviors as the best way to understand consumer behavior and goals. In this case, a life-stage comparison lens can add to our understanding of these consumers and help spot near-term and longer-term opportunities.

Examine the electricity attitudes of these Curious and Capable consumers by comparing them with the attitudes of the Informed and Engaged. They are similar in many ways, but differences seem to be by degree. If we compare these two segments using a life-stage lens, the comparison is enlightening. (*Table 4*)

Table 4: Comparing the Electricity Attitudes of the Curious and Capable with the Informed and Engaged

	Attitudes	Curious and Capable *"Younger Adult"*	Informed and Engaged *"Middle-Aged Adult"*
Electricity Attitudes	Reducing my electricity usage helps the reliability of the electric grid.	82%	94%
	Reducing my electricity usage helps the environment.	82%	96%
	I do everything I can to reduce my electricity bill.	71%	90%
	I use technology wherever I can to help me be more energy efficient.	71%	85%
	Saving energy makes my home more uncomfortable.	41%	28%
	Saving energy is inconvenient.	37%	27%
	I don't know what to do to reduce my electricity usage.	37%	22%
	I'm too busy to think about saving energy.	36%	18%

It isn't hard to imagine how life experience – living on your own and paying your own bills – could lead to a better understanding of how expensive electricity can be or how increased usage at peak times of the day might affect grid reliability. Conversely, for someone who is early in life's journey and in their career, they may be more focused on work and social connections.

Examining technology attitudes, there is a similar technology openness and dependence, though to a slightly lesser degree with the Curious and Capable. (*Table 5*) They are likely to use technology but have not prioritized its applications for energy management.

Table 5: Comparing the Technology Attitudes of the Curious and Capable with the Informed and Engaged

	Attitudes	Curious and Capable *"Younger Adult"*	Informed and Engaged *"Middle-Aged Adult"*
Technology Attitudes	I always look for ways technology can improve my life/help me.	**76%**	**89%**
	I don't mind spending a lot of money on technology if it improves my quality of life.	**69%**	**74%**
	Friends and family ask me for opinions and advice on technology.	**58%**	**70%**

The Curious and Capable share many of the same attitudes as the Informed and Engaged, though not quite as strongly all around, and together, these segments represent 62% of the general population. As we use this life-stage lens to compare them – noting how age, experience, financial position, dwelling choices and life focus might be major influences – we can also spot ways to enhance engagement with both segments.

Targeted education could raise awareness of the connection between usage and grid stability and environmental quality. The same is true of learning about actions that can help reduce one's electricity bill. This would positively impact engagement with consumers in both segments.

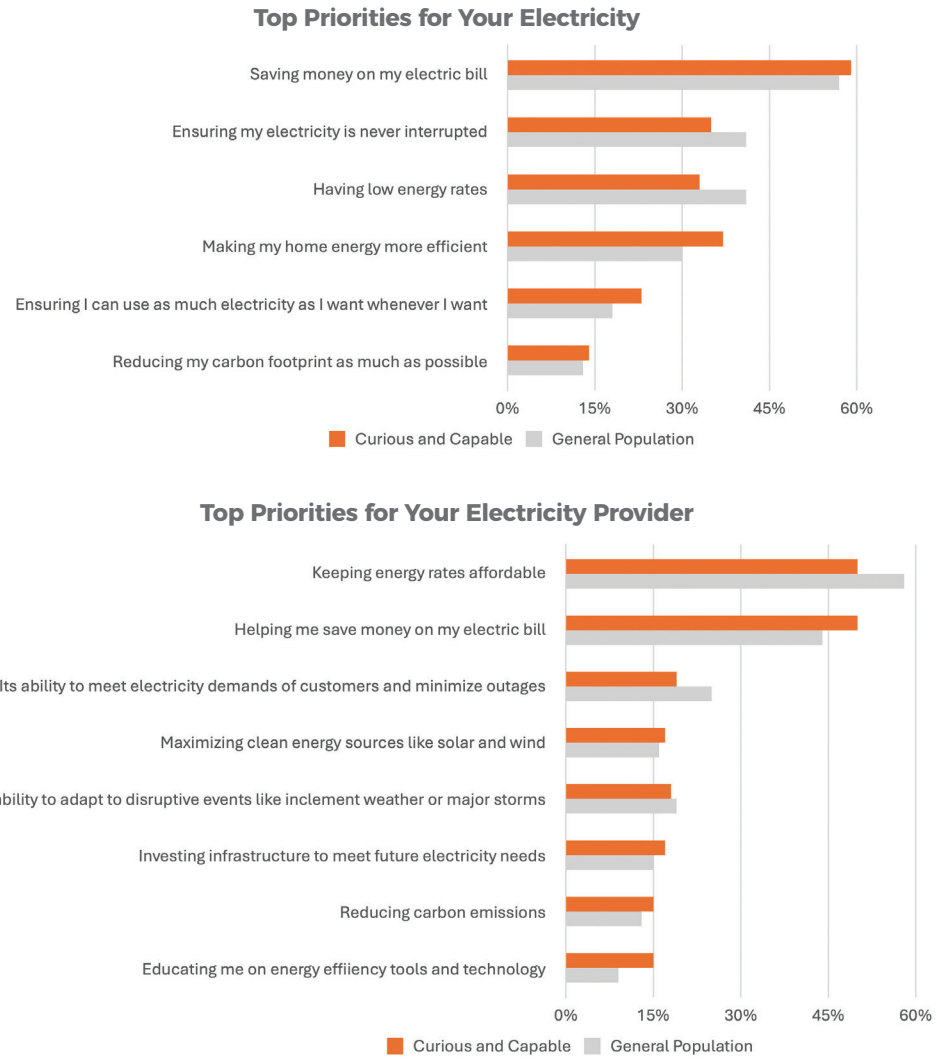
Expanding technology in the homes of the Curious and Capable would give them tools to help manage electricity bills, increase comfort and convenience in their home, and provide additional control over their bills. And leveraging technology requires less attention, not more, from their busy schedules.

The Curious and Capable share many of the same attitudes as the Informed and Engaged, though not to quite as strongly all around, and together, these segments represent 62% of the general population.

Electricity Priorities

The Curious and Capable consumers prioritize saving money on their electric bill, and they expect their providers to keep rates affordable and help them to save money. This is true for all consumer segments, but for the Curious and Capable, no other priorities come close. (*Figure 10*)

Figure 10: Top Priorities for Consumers and Their Electricity Providers



It is interesting to note that 73% of consumers in this segment also say that their electricity bills are affordable. There is an apparent disconnect in this data point along with their singular priority on saving money and keeping energy rates affordable. We might ask:

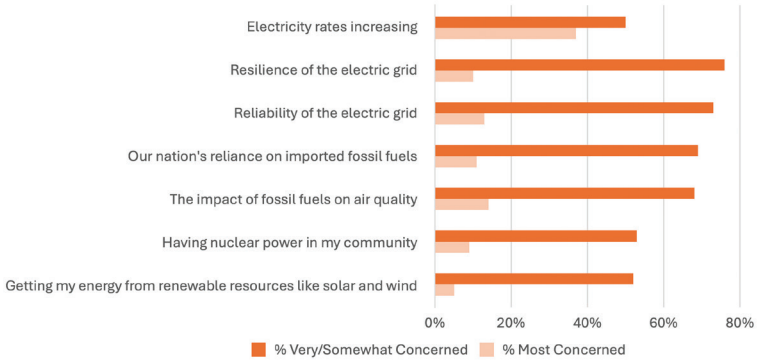
- Are many of these consumers living in "right-sized dwellings", i.e., smaller, easier/cheaper to heat/cool? Are they living alone, placing less demand on electricity-dependent appliances?
- Are they in shared living arrangements, i.e., roommate situations where they have less control over the electricity usage of others?
- Half have six-figure incomes so are they not feeling the pain of rising costs as lower-income consumers may feel?
- Do these consumers simply not think about electricity until it's time to pay the bill or the power goes out, making electricity very low on the list of issues that get their attention?

With all these factors at play, one takeaway is clear: getting this group's attention is a key step in engagement and action. And it won't be easy.

Electricity Concerns

Aligning with their attitudes, the Curious and Capable consumers are most concerned with the rise in electricity rates. Eighty-four percent are very or somewhat concerned, and for 37% of these consumers, this is their top concern. (*Figure 11*) Looking at what concerns them the least, the short answer is everything else. Resilience/reliability of the electric grid, fossil fuel dependence and nuclear power are not a top concern for many (10%/13%, 11% and 9%, respectively). Why? Going back to our life-stage comparison, they've connected the dots between their electricity usage and their bill, yet aren't familiar with other elements of the electricity ecosystem that may cause concern.

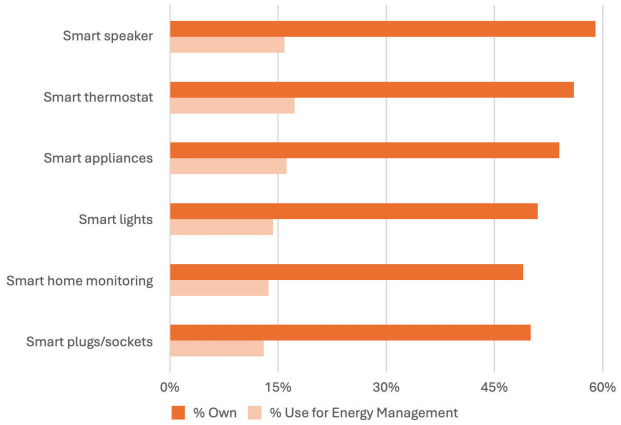
Figure 11: Top Concerns Around Electricity



Engagement With Electricity Providers

Curious and Capable consumers are not the most likely segment to be in touch with their providers. Like all consumers, they are most likely to be in contact when their monthly bill rises noticeably. Yet, only about a quarter of them have made contact about their bill, and fewer than 20% have contacted their provider about an outage in the last 12 months. In short, they are only slightly more likely to make contact than the general population. We've made the case that these consumers – though they are financially and technologically capable – are not using smart devices to manage their electricity usage and bills. (*Figure 12*)

Figure 12: Ownership and the Use of Smart Devices for Energy Management



As a result, expanding the use of the smart devices they already own is a significant opportunity for education and incentives.

- Use every contact as an opportunity to investigate technologies already in the home but not employed for energy management. "Did you know that your device could help you manage your electricity bill by …"
- Create simple short-form videos, fact sheets and guides (unique to each smart device) that explain the energy management functions that may already be available. Make sure these are available online and on social media platforms where these consumers spend their time and do most of their research. Paid search could be a particularly effective strategy.
- Be knowledgeable about the savings these technologies can offer, since not every device or management function will deliver big savings to every consumer. Consumers want information to be personalized, and this is an area to try to be as specific as possible. Look for AI to be one tool to make this personalization possible.

Working With These Consumers

The Engagement Mantra: Engage now to build a foundation for future growth.

The Curious and Capable segment provides the most opportunity for growth. These consumers are exploring and forming attitudes that will likely harden as time goes on. While they are not prone to make contact now, it is important to engage with them while they are curious and open to new ideas, building a foundation that can be built upon as time goes on.

Engagement will not be easy. These consumers are not thinking a lot about energy or electricity. Their budgets (and energy costs) are likely smaller now than they will be in a decade. Their housing is likely to change often as they pursue different jobs and move about in their careers. Their focus is on establishing themselves. This bit of instability today is an opportunity for engagement if providers can gain some attention and build a relationship now.

- **These Curious and Capable consumers are highly interested in technology and** in using it for energy management, but they're not as proactive in taking action. Suggesting actions that depend on technology and expanding the use of technologies the consumer already owns will be easiest to promote.
- **Their concern over rising electricity rates will be the impetus for those who will act,** especially as increases are reflected in their bill. Lead with messages that clearly state how pursuing a specific energy efficiency goal or letting technology manage their usage will be most effective.
- **Reach out to customers when rates increase and when new technology-based programs** (particularly those that expand on existing smart home devices) are created. Be prepared to walk through potential effects on consumers' bills and offer programs that can help consumers stabilize their bills in the new environment. An additional customer engagement opportunity is when a service address changes.

While challenging, these investments will pay dividends in the short and longer term as the Curious and Capable segment's life circumstances evolve. Some percentage of these consumers will begin to reflect the attitudes and behaviors of the Informed and Engaged as this relationship-building continues.

> **These Curious and Capable consumers are highly interested in technology and in using it for energy management, but they're not as proactive in taking action.**

THE TECH-CAUTIOUS SAVER

These consumers prioritize saving money and keeping electricity rates low but don't want to be uncomfortable or use technology.

Saving money and simplifying life are their priorities

- Lowest satisfaction with their provider
- Uneasy with technology
- Do not want to sacrifice comfort

25%
of the population

- Lower income
- Primarily older women
- Not likely to have children at home

Energy and Technology Attitudes In Depth

For these Tech-Cautious Savers, saving money and reducing their bill are top priorities. (*Figure 13*) They are the least likely consumers to say their electricity bill is affordable; only 51% say so – well below the general population average of 72%. They are the most likely (32%) to struggle to pay their bills, and they are also the most likely to say saving energy makes their home uncomfortable (47%).

Figure 13: Electricity Attitudes of Tech-Cautious Savers and Other Segments

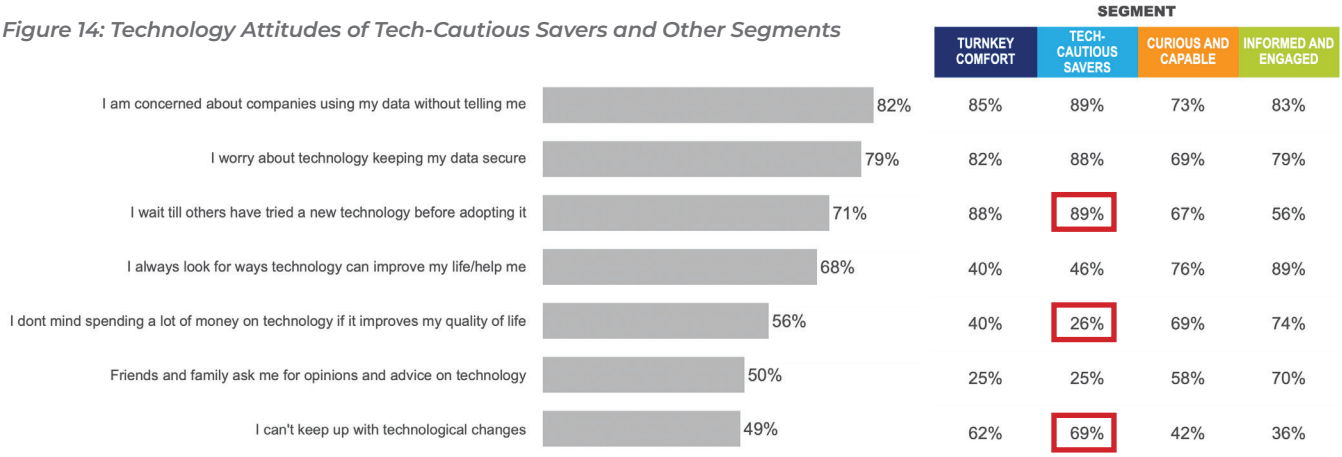
	TOTAL	SEGMENT			
		TURNKEY COMFORT	TECH-CAUTIOUS SAVERS	CURIOUS AND CAPABLE	INFORMED AND ENGAGED
Reducing my electricity usage helps the reliability of the electric grid	86%	81%	81%	82%	94%
Reducing my electricity usage helps the environment	86%	84%	78%	82%	96%
I do everything I can to reduce my electricity bill	79%	63%	81%	71%	90%
My electricity bill is affordable	72%	93%	51%	73%	79%
I use technology wherever I can to help me be more energy efficient	64%	36%	41%	71%	85%
Saving energy makes my home uncomfortable	37%	38%	47%	41%	28%
Saving energy is inconvenient	33%	31%	38%	37%	27%
I don't know what to do to reduce my electricity usage	26%	14%	26%	37%	22%
I struggle to pay my electricity bill	25%	4%	32%	28%	26%
I'm too busy to think about saving energy	23%	15%	17%	36%	18%

Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682)
QELECTRICITYATTITUDES. How strongly do you agree or disagree with each statement below about your electricity usage?

Considering these electricity attitudes, we could paint a picture of these consumers as mature adults, often women, living on less-than-comfortable incomes, regularly donning a sweater in colder weather instead of turning up the heat. They simplify. They juggle their budgets. They pinch pennies and clip coupons. This characterization begs the question of how providers can engage and improve the lives of these consumers.

For consumers in other segments, home upgrades and technology are the answer. Not so for these Tech-Cautious Savers. Their financial situation doesn't offer much room for investment in newer, more efficient appliances and infrastructure upgrades.

Figure 14: Technology Attitudes of Tech-Cautious Savers and Other Segments



Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682)
QTECHATTITUDES. Next, we want to ask you about technology. How strongly do you agree or disagree with each statement below?

And their aversion to technology is an impediment. (*Figure 14*) Sixty-nine percent of these consumers admit they can't keep up with technology changes. They are some of the last to adopt new technologies (89%), and only a quarter of them will spend a lot of money on the technologies they do buy.

Electricity Priorities

The simple story on priorities is this: Tech-Cautious Savers are all about keeping electricity costs low, whether it is what they do in their home or what their providers invest in. "Saving money on their electric bill" and "having low energy rates" are far and away the top priorities for these consumers (84% and 69%, respectively). It's notable that these consumers also place lower value on reliability, efficiency and environmental priorities than the general population. (*Table 6*)

Table 6: Top 2 Consumer Priorities for Tech-Cautious Savers

	% Ranked Top 2 Priorities	Tech-Cautious Savers	General Population
Consumer Priorities	Saving money on my electric bill	**84%**	**57%**
	Having low energy rates	**69%**	**41%**
	Ensuring my electricity is never interrupted	**28%**	**41%**
	Making my home energy more efficient	**11%**	**30%**
	Ensuring I can use as much electricity as I want whenever I want	**6%**	**18%**
	Reducing my carbon footprint as much as possible	**2%**	**13%**

A similar dynamic occurs when these consumers are asked about their priorities for their electricity providers. Keeping rates affordable (85%) and helping them save money on their bill (69%) are in the top 2 for the Tech-Cautious Savers, well above the general population. Conversely, these consumers do not expect their providers to invest in grid resiliency (18% and 9%), clean energy (6% and 2%) or new infrastructure to meet expanding needs (7%), all well below the general population. (*Table 7*)

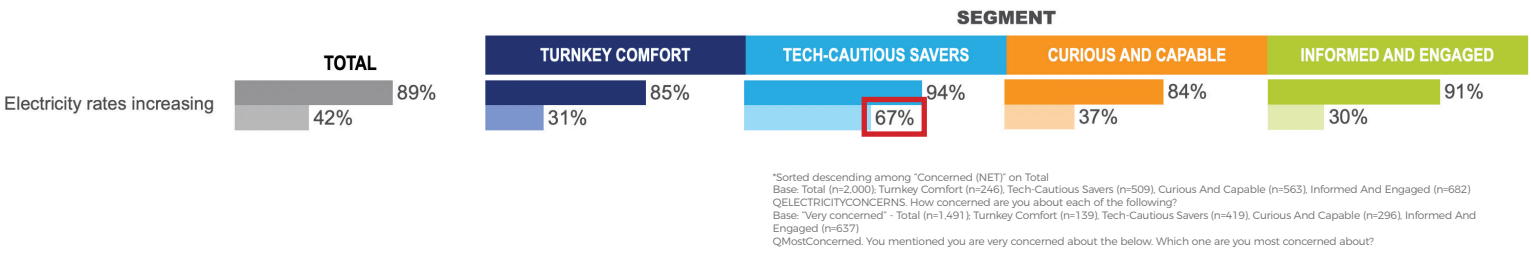
Table 7: Tech-Cautious Savers' Top 2 Priorities for Electricity Providers

	% Ranked Top 2 Priorities	Tech-Cautious Savers	General Population
Provider Priorities 	Saving money on my electric bill	**84%**	**57%**
	Having low energy rates	**69%**	**41%**
	Ensuring my electricity is never interrupted	**28%**	**41%**
	Making my home energy more efficient	**11%**	**30%**
	Ensuring I can use as much electricity as I want whenever I want	**6%**	**18%**
	Reducing my carbon footprint as much as possible	**2%**	**13%**
	Reducing my carbon footprint as much as possible	**2%**	**13%**
	Reducing my carbon footprint as much as possible	**2%**	**13%**
	Reducing my carbon footprint as much as possible	**2%**	**13%**

Electricity Concerns

Electricity rate increases are the top concern for these consumers. More than any other segment, 94% of them are concerned about these increases. For 67% of these consumers, this is their top concern (well above the 30-37% range for other segments). (*Figure 15*)

Figure 15: Top Electricity Concern for Tech-Cautious Savers and Other Segments



*Sorted descending among "Concerned (NET)" on Total
Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682)
QELECTRICITYCONCERNS. How concerned are you about each of the following?
Base: "Very concerned" - Total (n=1,491); Turnkey Comfort (n=139), Tech-Cautious Savers (n=419), Curious And Capable (n=296), Informed And Engaged (n=637)
QMostConcerned. You mentioned you are very concerned about the below. Which one are you most concerned about?

Alongside their attitudes, priorities and demographic characteristics, their concern over affordability is not unexpected. If not already struggling to pay their electricity bill, these consumers can easily imagine a time when they will be unable to afford the energy they need to power their lives.

Engagement With Electricity Providers

These Tech-Cautious Savers are the most dissatisfied consumers and the least trusting of their providers. (*Figure 16*) Satisfaction and trust go hand in hand, so reaching and engaging a segment like this is quite the challenge.

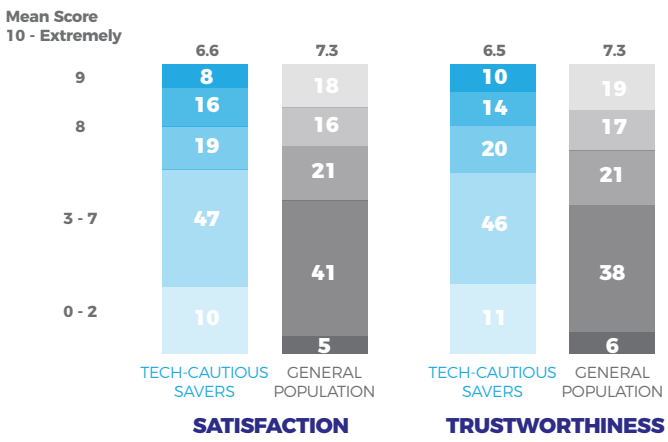
There are some who may argue that investment made to engage this segment is an exercise in futility. Yes, it is true that the challenge is significant, but there are opportunities. They represent a quarter of the customer base of most providers, and it is these consumers who could benefit the most from the expertise their providers can offer. Providers should be prepared to answer questions like these:

- How can I maximize the comfort in my home with minimal upfront investment?
- Are there local organizations that can help me afford some basic upgrades to save money? What would those upgrades be?
- Are there discounts/rebates available for those upgrades?
- Is there an optional rate plan that will make my electric bill more predictable?

These consumers may not ask these questions directly, but providers should be prepared to address them in a personalized way. These consumers want their providers to communicate through their bill. Never miss an opportunity to promote programs oriented toward saving money. Offer expert, personalized advice on how to maximize comfort while minimizing cost. Build trust and satisfaction with little steps, always making a personal follow-up when the consumer chooses to act on that advice.

Figure 16

SATISFACTION AND TRUSTWORTHINESS (%)



These consumers may not ask these questions directly, but providers should be prepared to address them in a personalized way.

Working With These Consumers

The Engagement Mantra: Make living affordable and easy.

Tech-Cautious Savers do not think their providers are doing enough to keep their bills affordable – and many struggle to pay their bills. These consumers need to be won over with affordability measures that directly help them.

- **Program offers need to show consumers the direct monetary savings** they can achieve. This will require personalization based on current usage habits as well as tools that are easy to use when estimating the potential savings.
- **Don't ask these consumers to download an app or answer a long questionnaire online.** As they are unlikely to find opportunities online through their own research, promote money-saving opportunities on bills, along with a contact phone number to someone knowledgeable who can walk them through personalized estimates and program requirements.
- **Short-term savings will be most attractive.** Demand response (i.e., peak-time rebates, TOU and behavioral DR) and energy efficiency programs that allow consumers to accumulate savings points that show up as line-item reductions on their bill will be winners. If savings require an upfront investment, offer programs that pay for the upfront cost as savings accrue.
- **Many of these consumers may now qualify for assistance programs** but are not participating or aware. Know the community organizations that offer weatherization and home upgrade services at no or little cost and connect the consumer to them.
- **Don't discount the engagement opportunity when rate plans change.** If the consumer has been "opted in" to a new rate plan, be prepared to offer an alternative if one would save them more money or make their bill more predictable. Estimate the effect of rate plan changes with personalized historical data and consider making a guarantee or offering a trial period with no penalty to "opt out".

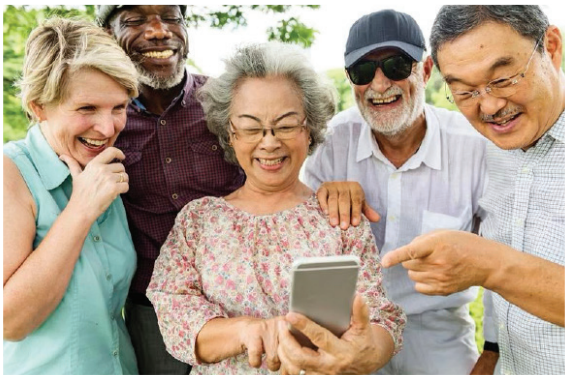
> **Tech-Cautious Savers do not think their providers are doing enough to keep their bills affordable – and many struggle to pay their bills.**

THE TURNKEY COMFORT CONSUMERS

These consumers prioritize reliability and resiliency but want their electricity provider to do the work.

Least favorable to energy efficiency

- Low electricity bills
- Few affordability challenges
- Own technology but do not use it for energy efficiency



13%
of the population

- Well-educated
- Good incomes
- Many are retirees "living the good life"

Energy and Technology Attitudes In Depth

Turnkey Comfort consumers are the most likely to say their electricity bill is affordable (93%), while very few (4%) struggle to pay their electricity bill. Not surprisingly, they're the least inclined to do much to reduce their electricity bill (63%), and only a quarter review their bills regularly. (*Figure 17*)

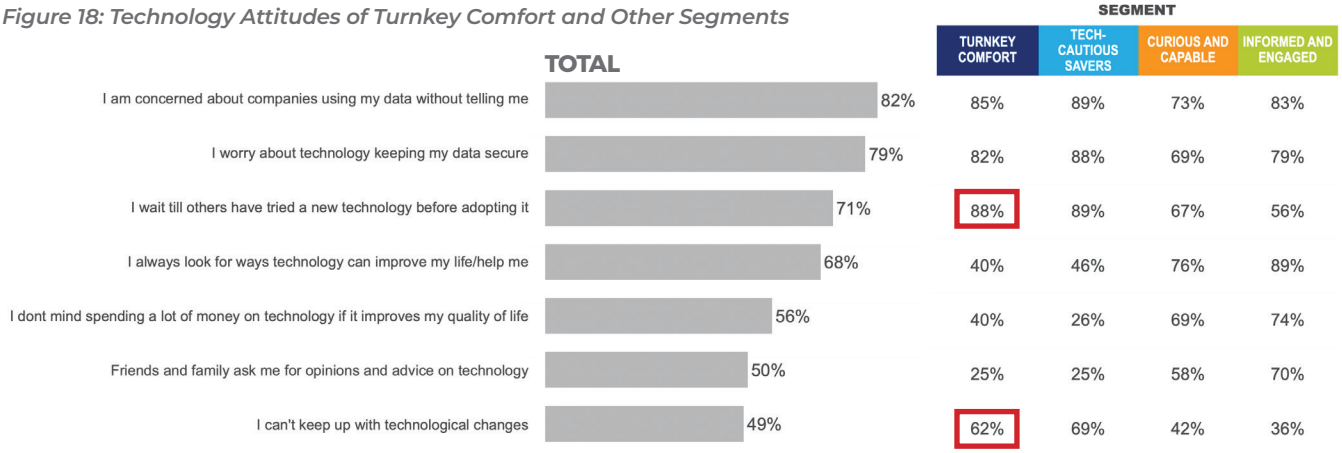
Figure 17: Electricity Attitudes of Turnkey Comfort and Other Segments

	TOTAL	SEGMENT			
		TURNKEY COMFORT	TECH-CAUTIOUS SAVERS	CURIOUS AND CAPABLE	INFORMED AND ENGAGED
Reducing my electricity usage helps the reliability of the electric grid	86%	81%	81%	82%	94%
Reducing my electricity usage helps the environment	86%	84%	78%	82%	96%
I do everything I can to reduce my electricity bill	79%	63%	81%	71%	90%
My electricity bill is affordable	72%	93%	51%	73%	79%
I use technology wherever I can to help me be more energy efficient	64%	36%	41%	71%	85%
Saving energy makes my home uncomfortable	37%	38%	47%	41%	28%
Saving energy is inconvenient	33%	31%	38%	37%	27%
I don't know what to do to reduce my electricity usage	26%	14%	26%	37%	22%
I struggle to pay my electricity bill	25%	4%	32%	28%	26%
I'm too busy to think about saving energy	23%	15%	17%	36%	18%

Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682)
QELECTRICITYATTITUDES. How strongly do you agree or disagree with each statement below about your electricity usage?

How do they feel about technology? In short, they're not inclined to use technology to make energy efficiency easier or to manage their bill. As expected, they are not early adopters of technology – 88% wait until others have tried a new technology before adopting it – and they struggle to or don't wish to keep up with technological changes. (*Figure 18*)

Figure 18: Technology Attitudes of Turnkey Comfort and Other Segments



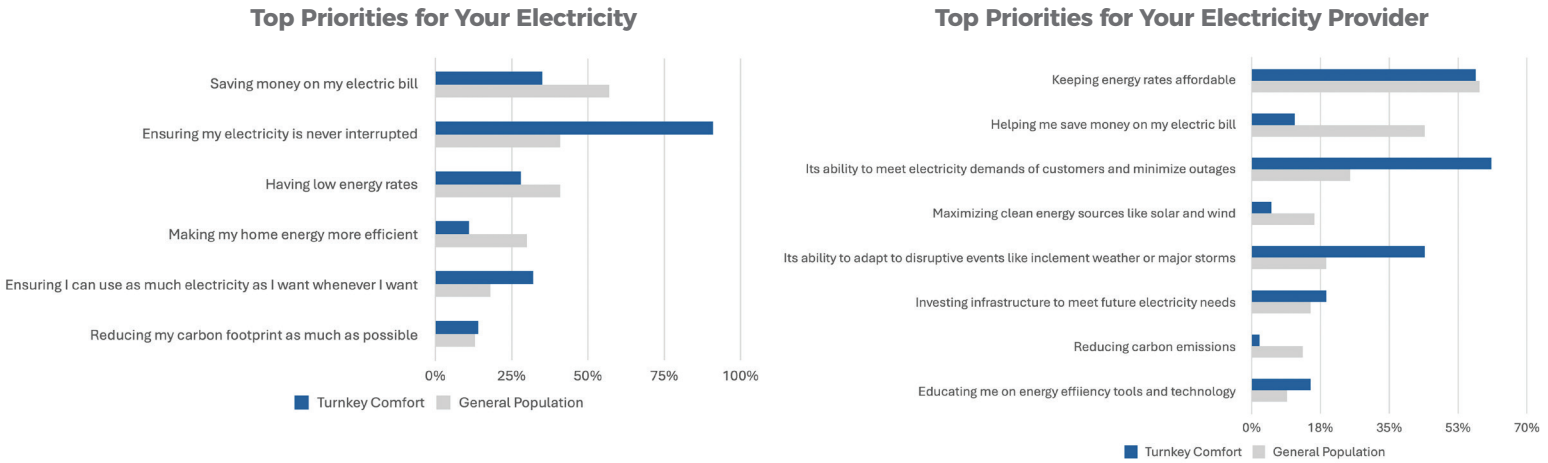
Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682)
QTECHATTITUDES. Next, we want to ask you about technology. How strongly do you agree or disagree with each statement below?

These attitudes are consistent with what we would expect from a group that we characterize as "retirees living the good life". Their comparatively high incomes (53% have six-figure incomes) and lowest median bills are not much of an incentive to pay attention to energy efficiency. Their average feeling about how energy efficiency could help the environment (86% for the general population and 84% for this segment) isn't enough to spur action in their household.

Electricity Priorities

While the top priorities for other consumers are cost-related, these Turnkey Comfort consumers are all about reliability. For themselves, 91% prioritize "ensuring my electricity is never interrupted". For their provider, 61% prioritize "its ability to meet electricity demands of customers and minimize outages", ahead of keeping rates affordable. (*Figure 19*)

Figure 19: Top Priorities for Consumers and Their Electricity Providers



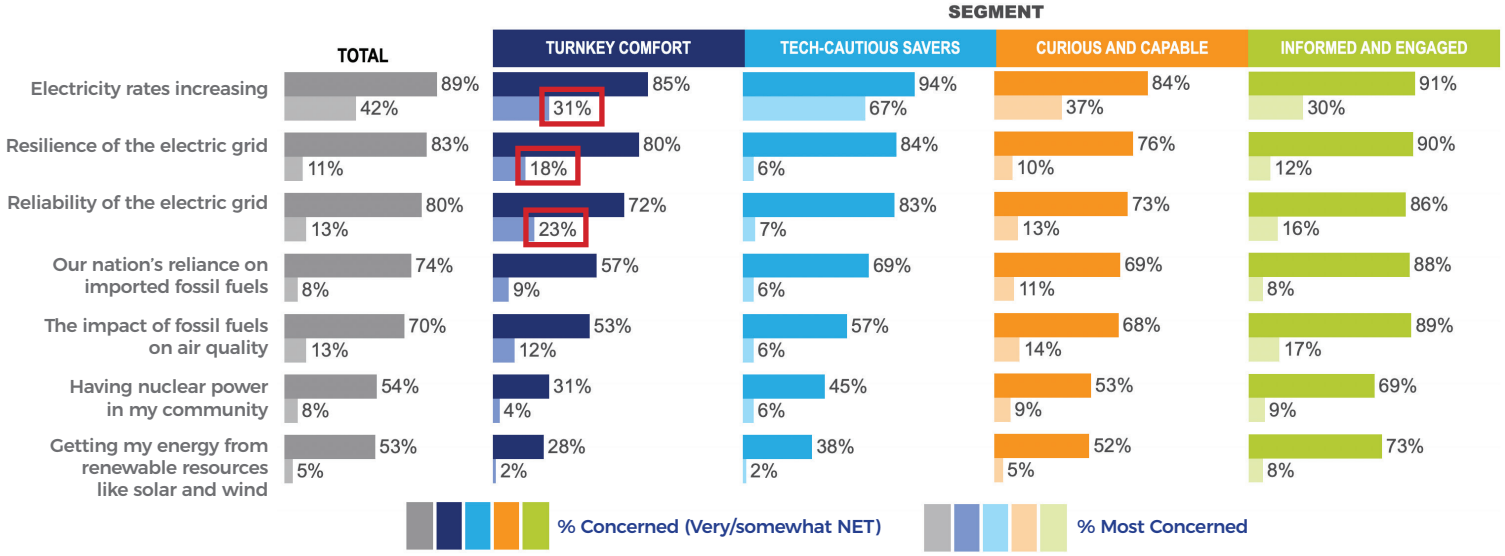
As the figure shows, there isn't much interest in making their home energy efficient. In fact, 39% of respondents in this segment told us "I don't look for information on this" when we inquired about where they search for information on energy efficiency. This is the highest percentage of all the segments and double the general population.

Electricity Concerns

Turnkey Comfort consumers, like others, put electricity rate increases in their top 2 electricity concerns. Eighty-five percent are very/somewhat concerned about this (89% for the general population). This segment's lower degree of concern is most noticeable in the percentage of these consumers who noted rate increases as their top concern – 31% vs. 42% for the general population.

Their concern over resiliency and reliability stands out too when we notice how many more Turnkey Comfort consumers said they were most concerned about resiliency and reliability (18% and 23%, respectively) compared to the general population (11% and 13%). (*Figure 20*)

Figure 20: Top Electricity Concerns



"Sorted descending among "Concerned (NET)" on Total
Base: Total (n=2,000); Turnkey Comfort (n=246), Tech-Cautious Savers (n=509), Curious And Capable (n=563), Informed And Engaged (n=682)
QELECTRICITYCONCERNS. How concerned are you about each of the following?
Base: "Very concerned" - Total (n=1,491); Turnkey Comfort (n=139), Tech-Cautious Savers (n=419), Curious And Capable (n=296), Informed And Engaged (n=637)
QMostConcerned. You mentioned you are very concerned about the below. Which one are you most concerned about?

Engagement with Electricity Providers

Sixty-nine percent of Turnkey Comfort consumers have had no contact with their provider in the past 12 months – the highest percentage among the segments. Of those who have been in touch, checking on or reporting an outage was the most common reason at 19% (about the same as the other segments), followed by billing inquiries at 11% (the lowest of all the segments). Given their concern over reliability and resiliency, this impetus for engagement is expected. If the power doesn't go out very often and bills are stable, these consumers may never come to the attention of their provider, making engagement difficult.

If the power doesn't go out very often and bills are stable, these consumers may never come to the attention of their provider, making engagement difficult.

Working With These Consumers

The Engagement Mantra: Talk to me about comfort and reliability.

With satisfaction and trustworthiness almost as high as the Informed and Engaged and the Curious and Capable consumers, it's worth wondering if there is opportunity with this segment. If so, how much investment makes sense and how can I reach them? We will offer a few things to consider:

- This segment represents only 13% of the general population.
- This segment shows the least interest in energy efficiency – their priorities are comfort and reliability.
- Their bills on average are smaller than those of other consumers. With high incomes, few struggle to pay their bills.

Some readers may stop here and vow not to spend time engaging or encouraging these consumers to become active participants in energy efficiency. For some providers, that may be the right approach. For those who want to be more proactive and lean into the comfort and reliability priorities of this segment, we offer a few suggestions:

- **Reliability has long been a top priority for electricity providers.** As providers invest in reliability and resiliency, communicate in simple language to explain how these investments are paying off.
- **Consider "comfort management" as an alternative way to present energy management programs.** Offer energy management systems as a service, operated and owned by the provider. If technology can do the work, offer to provide it, install it and manage it for the customer.
- **Make program participation easy and make opting "in" the default** where possible. As with any program, emphasize how consumer action contributes to cost containment and grid reliability.

Reliability has long been a top priority for electricity providers. As providers invest in reliability and resiliency, communicate in simple language to explain how these investments are paying off.

CONCLUSION

We began this report with a discussion of the pressures shaping the electricity ecosystem today: demand growth, rising prices, more technology and the sunset of government incentives for energy efficiency and renewable energy resources.

As the industry focuses on addressing these realities, it's important to bring consumers along. Our members and readers are committed to listening and looking for ways to educate and engage.

Through our *Consumer Pulse and Market Segmentation* reports, we have provided actionable tools for understanding consumer motivations, attitudes and behaviors. In this most recent wave, we've highlighted:

How influential technology has become in consumers' lives and, as a direct result, is a major influence on how they choose to engage with their energy usage and manage their costs. Two-thirds of consumers are ready to use technology to help themselves, but the remaining third are being left behind.

How consumer demand, driven by our very connected lives, has put increasing pressure on an electricity infrastructure designed and built for a less demanding time. Hence, there are ongoing opportunities to educate consumers about how their actions can be a tool to enhance grid reliability.

The pressure of rising prices has heightened consumers' focus on cost. All four of our consumer segments place cost control in the top 2 priorities for themselves and their providers. They want to know what they can do to control their own cost. They're also expecting their providers to make cost control a top priority. (Figure 21)

Figure 21

Electricity Consumers Say...

I'M CONCERNED ABOUT...

*** Electricity rate increases**
*** Resilience of the electric grid**
*** Reliability of electric grid**

I want to...

Save money on my electric bill

Ensure my electricity is never interrupted

Have low energy rates

Make my home energy efficient

I want my provider to...

Keep energy rates affordable

Help me save money on my electric bill

Be able to meet electricity demands and minimize outages

These challenges must be met by an ecosystem that shares a common vision of a smarter energy system. As we continue to educate and give voice to consumers and share industry best practices around smart energy, we invite you to journey with us.