Consumer Perceptions of Green Energy

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Agenda

- This session examines consumers' perceptions and attitudes towards:
  - green/alternative energy
  - energy efficiency and conservation
  - green technologies
  - branding and messaging around alternative energy

EcoAlign Overview

What we do

we are a strategic marketing agency that helps companies operating in the energy and environment space close the gap between customers' stated intentions and their actual purchase behavior

60+ years of experience in energy sector

+

Decades of marketing experience and creative thinking

+

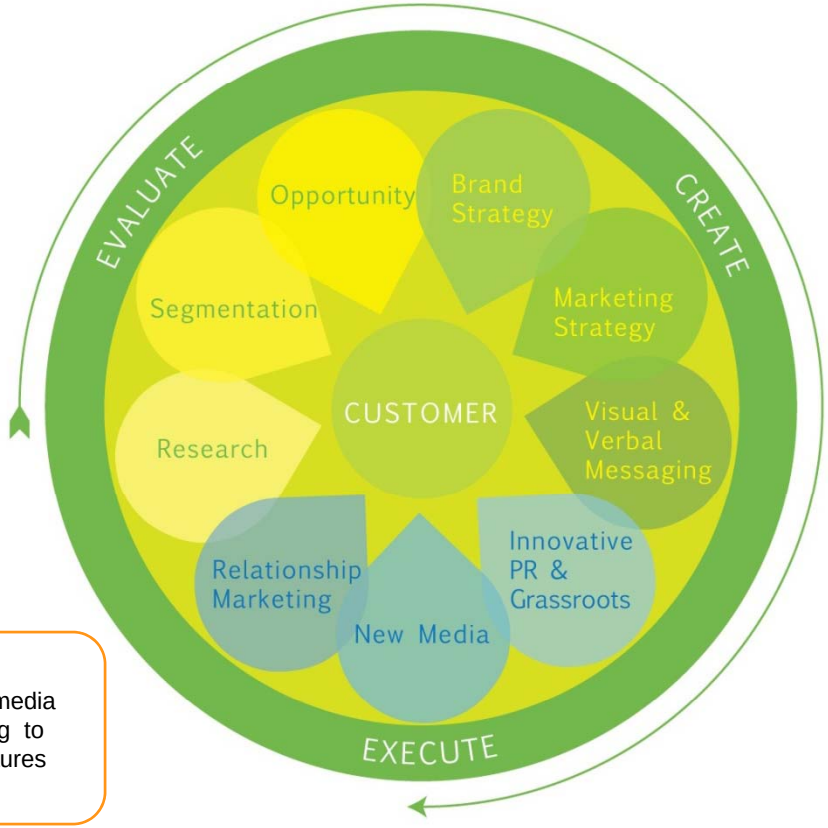
Strategic tools customized for the challenges of the energy space

=

To close the gap and
&
make your value visible with speed efficiencies and results

How we can help

Evaluate Customer Alignment:
We identify the key factors that shape consumer identities and drive to favorable purchase behavior. We leverage this information to develop in-depth audience profiles that can be effectively leveraged for marketing strategy.



Create Market Alignment:
We analyze the forces that affect your offering in the marketplace. Then, we develop the marketing strategy and build the perceptual language aligned with your customers' identities and values to influence behavior and stimulate favorable action

Execute Alignment:
We integrate grassroots techniques and new media with the fundamentals of relationship marketing to build powerful customer engagement architectures that drive to the desired results.

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The roots of the gap

The Gap: EcoPinion Surveys

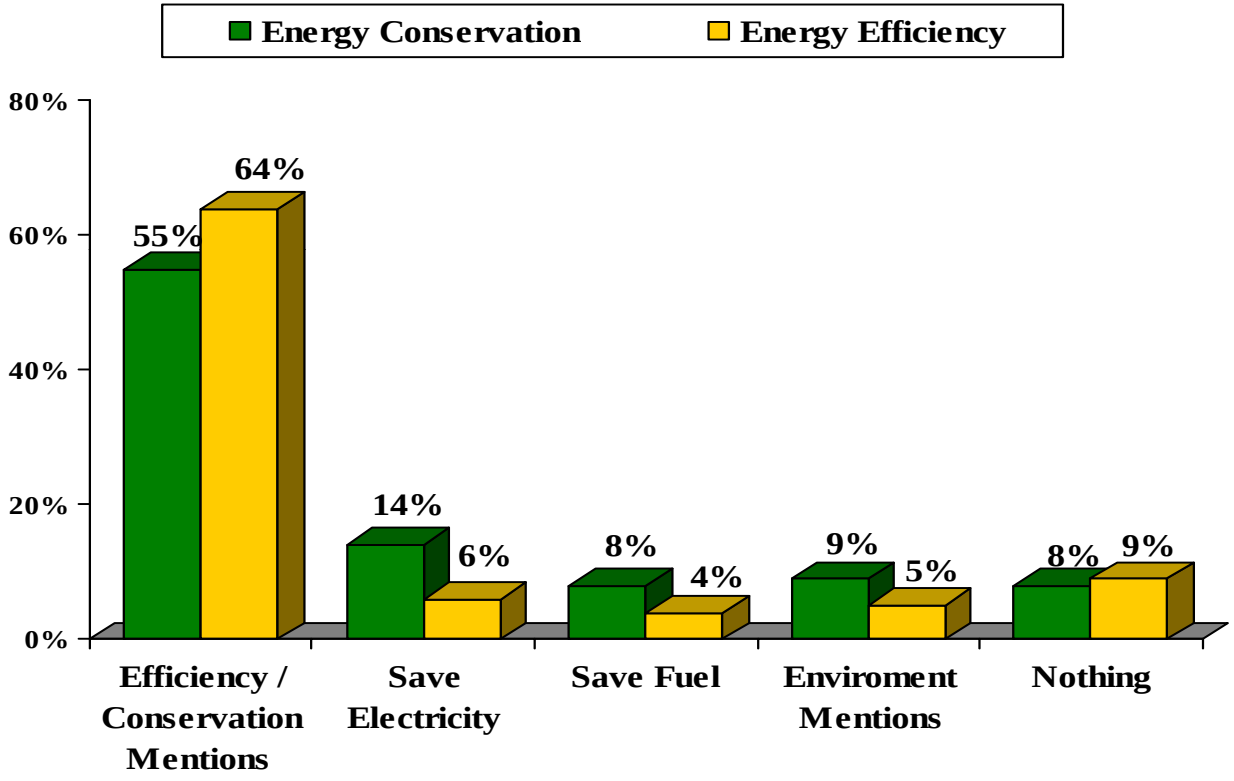
- EcoPinon is a bimonthly series providing a macro-level assessment of consumer values, drivers and behavior around energy and environmental needs
- The survey targets 1,000 people matching the U.S. population by age, gender, region and ethnicity
- The surveys indicates various examples of the gap that providers have to fill through marketing

EcoPinion Issue One

- Consumers across the nation were surveyed on their understanding and acceptance of the following terms: energy conservation, energy efficiency, demand response, smart energy and clean energy. Consumers were then asked what they were personally doing in terms of each term:
  - Most consumers can't articulate the difference between the phrases "energy conservation" and "energy efficiency," while only 13% of respondents think energy efficiency has to do with saving money or cutting down on fuel costs.
  - To conserve energy, a quarter of consumers try to buy energy efficient products, and 19% lower their thermostats.
  - Only about one third, 30%, of Americans understand the term "smart energy" and about the same amount, 32%, say they are not doing enough in terms of "smart energy."
  - One third of respondents do not know what "clean energy" signifies.
  - 41% of consumers polled don't know what "demand response" is, but nonetheless find it unpopular (44%), annoying (42%) and unhelpful (40%).

Understanding: Energy Conservation vs Efficiency

There does not seem to be too much differentiation in the market between “energy conservation” and “energy efficiency.” Both had similar responses to the open ended question with people generally answering that it means to use energy efficient appliances, energy efficient light bulbs, conserving energy/power, consuming less energy and not wasting energy. The descriptions are all pretty generic.



QB1a/B2a. What does the expression energy conservation/energy efficiency mean to you? n=1000

Understanding Energy Terminology

•This table illustrates the lack of understanding and blurring of the line between terms

Definitions	Energy Conservation	Energy Efficiency	Demand Response	Smart Energy	Clean Energy
The practice of decreasing the quantity of energy used while achieving a similar outcome. This practice may result in increase of financial capital, environmental value, national security, personal security, and human comfort	28%	22%	10%	13%	3%
Performing the same services but using less power	20%	28%	3%	15%	2%
Within the electric industry the mechanisms to manage the demand from customers in response to supply conditions, for example, having electricity customers reduce their consumption at critical times or in response to market prices	24%	8%	73%	12%	4%
The use of computers, electronics, and advanced materials to make energy use more efficient	11%	33%	8%	33%	5%
A term describing what is thought to be environmentally friendly sources of power and energy. Typically, this refers to renewable and non-polluting energy sources	16%	9%	6%	27%	86%

Q. For each of the three expressions indicated below please select the best definition from among the offered choices.

What are consumers doing?

- Consumers tend to mention electricity, fuel and the environment more when describing energy conservation, while cost and the more generic description apply to energy efficiency. But the overall inability of respondents to articulate specifics or provide examples of what these terms signify illustrate a lack of understanding
- Baby Boomers, those 55 and older, when asked what they are doing in terms of energy efficiency and conservation have more concrete answers and are less likely than their younger counterparts to answer “nothing.”
- “What are you personally doing in terms of (energy conservation / energy efficiency)?”
  - Boomers are significantly more likely to mention conserving or saving fuel by driving less, driving hybrids or driving slower than the speed limit.
  - They are also significantly more likely to mention lowering the thermostat or using less air conditioning.
- It seems the Boomers are more likely to take action, while the younger group is more likely to use “buzz” words and less likely to articulate how that translates into action.

What are consumers doing?

- In terms of geography:
  - The Midwest lowers their thermostat more than any other region when asked about energy conservation,
  - The South cuts back on air conditioning.
  - The Northeast and the Western regions are more likely to say that they buy energy efficient appliances. In terms of energy efficiency, the Northeast and the West are more likely to purchase energy efficient light bulbs.
- Since the US is gearing up for elections, we thought you might be interested to know that significantly more self identified “Independents” (25%) say they are purchasing energy efficient appliances compared to their Democratic or Republican counterparts, who both weigh in at 15%.

Clean Energy: what are consumers doing?

- Overall, it's difficult for consumers to articulate what, if any, actions they are taking in terms of clean energy

- Respondents aged 35-54 are more likely to drive a fuel efficient car than the 18-34 group while the 55+ set is more likely to use alternative energy, such as geothermal, propane and "better gas" than the 18-54 group.

Clean Energy	Total (A)	18-34 (B)	35-54 (C)	55+ (D)
Energy conservation/efficiency all mentions	10%	10%	9%	10%
Fuel Conservation	15%	17%	13%	14%
Electricity Conservation	3%	2%	4%	2%
Water Conservation	1%	1%	0%	1%
Environment (all mentions)	14%	15%	13%	14%
Alternative Energy	10%	7%	9%	16% (BC)
Nothing/Don't Know/No Answer	47%	49% (D)	51% (D)	39%

Q. What are you personally doing in terms of "clean energy"?

EcoPinion Issue Two

- Consumers across the nation were surveyed on their adoption of and concern regarding the installation of green technology:
  - Forty six percent (46%) of consumers interviewed have adopted some form of green technology. This percentage jumps significantly among the 55+ age group.
  - However, when asked to compare attributes of green technology, consumers who have not already adopted some form of green tech tended toward the more negative value attribute for every comparison. These consumers perceive green technology to be ugly, expensive, and difficult to understand and maintain. The 46% who have adopted green tech were significantly more positive.
  - When asked about their level of concern should their neighbors adopt or install different forms of green technology, the overwhelming majority of consumers are not concerned.
  - For those consumers who would be concerned if their neighbor installed green technology, appearance and safety were the top reasons, with 39% of consumers citing each of these.
  - Consumers age 55 and over are more likely to have adopted green technology, less likely to be concerned if their neighbors install green tech and more likely to view green tech in a positive manner.

Perceptions of Green Technology

- In each instance except for price, respondents who have not adopted any form of green technology were significantly more likely to choose the more negative of the attributes.

- The adopters, while not positive overall, generally responded more positively. (As seems to be the trend, those respondents 55 and older were more likely to have adopted green technology and more likely to respond positively).

Respondents were shown a list of attributes on a 7 point scale and asked to pick the number that most closely reflected their assessment of green technology

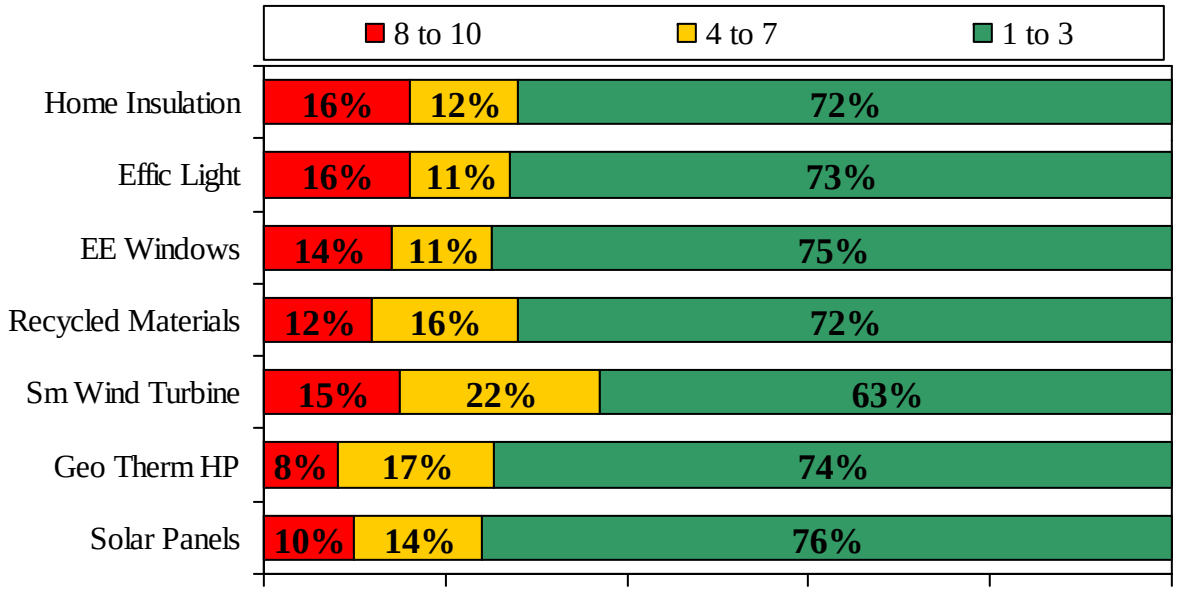
Attribute	Adopters	Non Adopters	Mean Rating
Cheap	39%	47%	4.8
Expensive	61%	53%	
Reliable	60%	38%	4.6
Unreliable	40%	62%	
Convenient	38%	24%	3.9
Difficult	62%	76%	
Easy to Understand	43%	28%	4.2
Difficult to understand	57%	72%	
Beautiful	44%	31%	4.3
Ugly	56%	69%	
Easy to maintain	37%	24%	4.0
Difficult to maintain	63%	76%	

QB4. Please go through the following attributes and check the position that more closely reflects your assessment of green energy technology? Is green energy technology more…**?**

Green Technology Concerns

- Whether respondents were adopters or not, they were not overly concerned about the different technologies, which ranged from solar roof panels and small wind turbines to efficient lighting and home insulation.
- In general, the group aged 55 and over was least concerned about their neighbors adopting/installing any of the technologies mentioned

- Consumers in the West were more likely to be concerned with small wind turbines, solar panels and recycled materials.
- In the Northeast they were also more concerned about wind turbines.
- Consumers in the Midwest tended to be least concerned overall, and especially regarding energy efficient windows and insulation.



QB2. If your neighbor installed one of the following green energy technologies, how concerned would you be? Please use a scale from 1 to 10 where "1" means you are NOT AT ALL CONCERNED and "10" means you are HIGHLY CONCERNED.

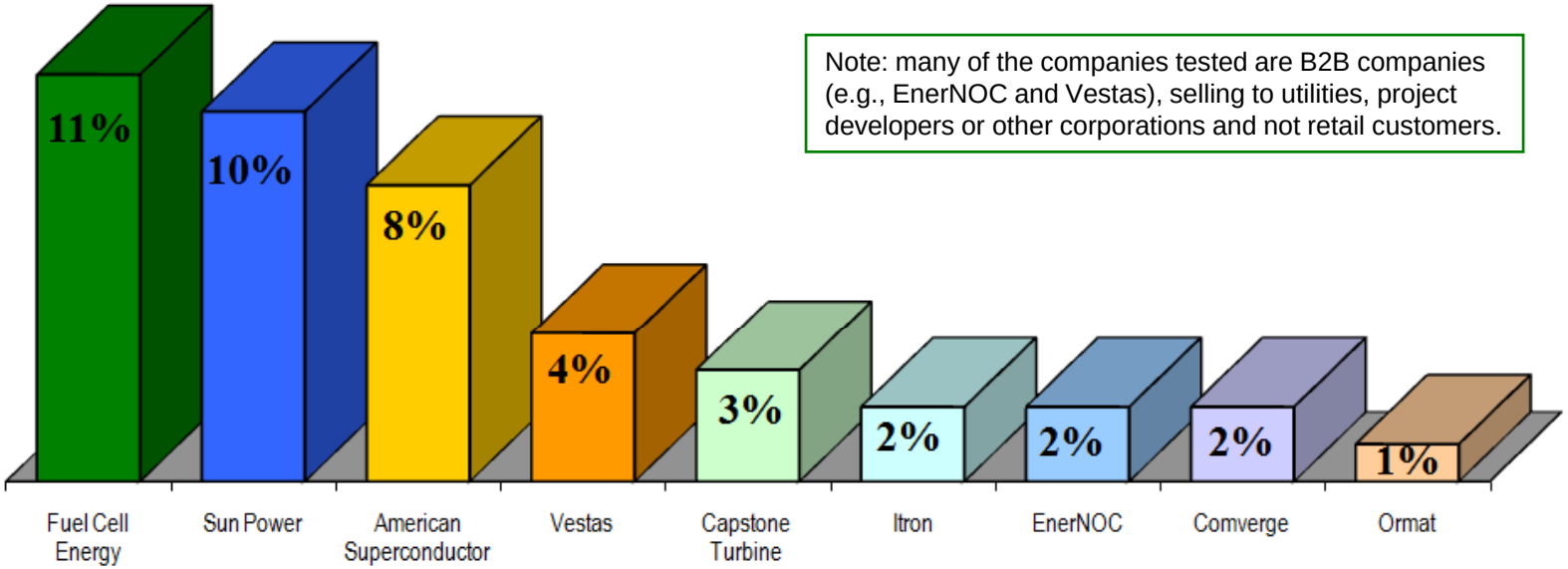
EcoPinion Issue Three

- Consumers across the nation were surveyed on their awareness of renewable and green energy suppliers, their electric utility providers, qualities necessary for an environmental leader and the believability of certain marketing statements.
  - Fifty four percent (54%) of consumers could not name, on an unaided basis, a company who supplied renewable or “green” energy.
  - Seventy one percent (71%) of respondents were not familiar, on an aided basis, of 10 “pure play” companies in the renewable and green energy space even though the companies tested have been favorites of investors in the space and have received a fair amount of media attention.
  - When asked about how committed respondents thought their electric utilities are to promoting or providing renewable energy or energy efficiency, ratings were about evenly split: 31% thought not at all committed, 36% were neutral and 33% rated the commitment level 7 or higher on a 10-point scale.
  - Respondents were then shown a mix of 12 companies representing various industries and asked which they thought were most committed to using or providing renewable energy. GE dominated, hands down, with 81% while Toyota was second at 65%. .
  - Seventy seven percent (77%) of consumers think that an energy efficient or green operations is the single most important quality of a corporation trying to be an environmental leader.

Awareness of renewable/green energy suppliers

• Even on an aided basis, pure play companies in the renewable and green energy space have virtually no brand recognition.

•Well-capitalized companies that have garnered a great deal of investor attention on Wall Street (e.g., Sun Power has a market cap of $5.9 billion and Itron has a market cap of $2.9 billion) recorded low brand recognition and awareness

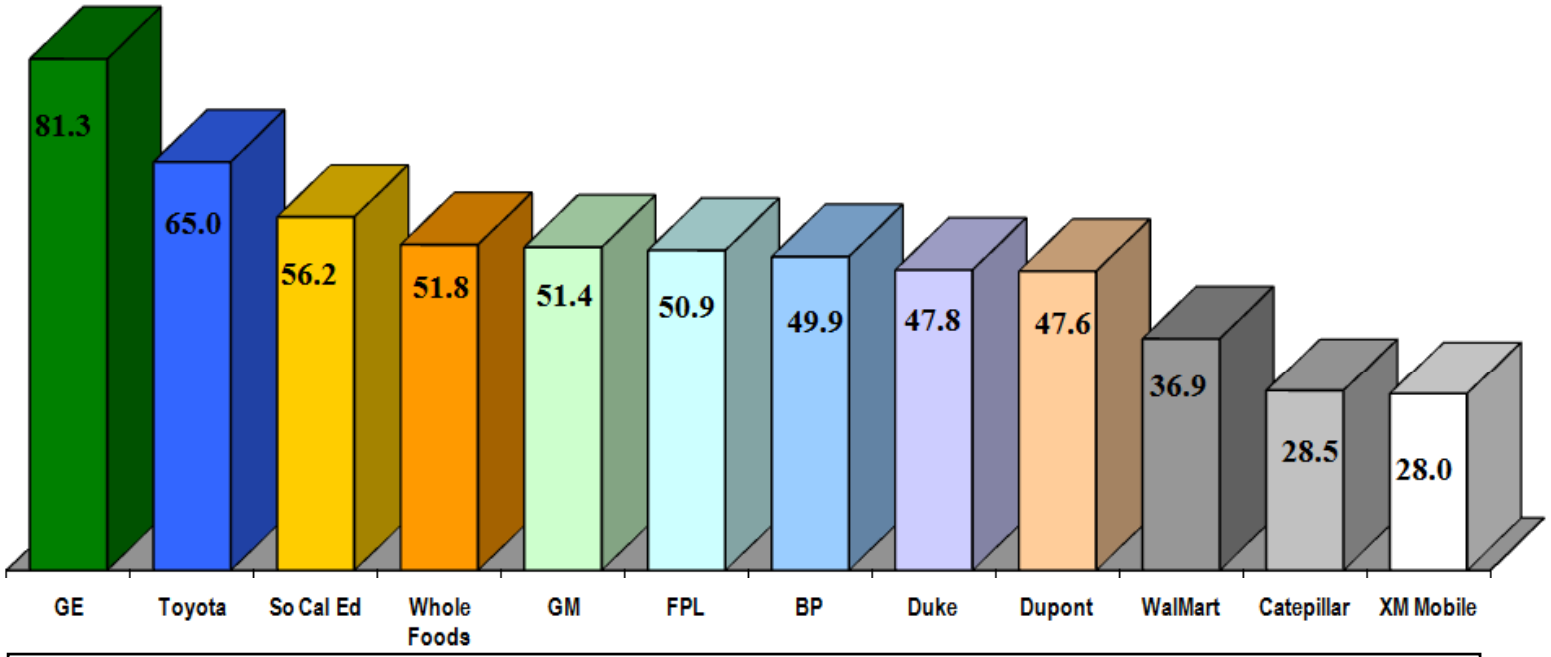


Note: many of the companies tested are B2B companies (e.g., EnerNOC and Vestas), selling to utilities, project developers or other corporations and not retail customers.

Q2. Which of the following companies have you heard of or are familiar with?

Perceptions of Corporate Commitment

- GE has done the best job by far to build brand awareness and acceptance as a provider of renewable energy



Q4. Which of the following companies do you think are most committed to using or providing renewable energy?

Perceptions of Corporate Commitment

- GE's mean increased significantly to 83 among women, which is not surprising considering their offerings and their targeted campaigns.
- Toyota's mean increased 6 points, to 71, among the 18 to 34 year olds. That is significantly higher than the other two age groups. (GM and Whole Foods showed similar increases in the same age group).
- BP, interestingly, fared significantly better among men and respondents in the Northeast.
- In the political sets, Independents favored Whole Foods while Republicans favored Duke Energy

Perceptions of Utilities' Commitment to Renewable Energy

- The good news for utilities is that the bulk of the companies mentioned as suppliers of renewable or green energy were electric utilities. However, there is almost an even split among consumers rating their electric utility as committed to promoting or providing renewable or energy or energy efficiency (33%) as there are rating them not committed (31%). The remaining 36% are neutral.
  - The neutral group offers a nice opportunity to move the dial, since it is much easier to positively influence consumers who have no real opinion than it is to influence ones who have negative opinions.
- Significantly more Democrats and Independents than Republicans gave top-box scores (9 or 10) in rating the commitment level of their electric utilities.

Perceptions of Utilities' Commitment to Renewable Energy

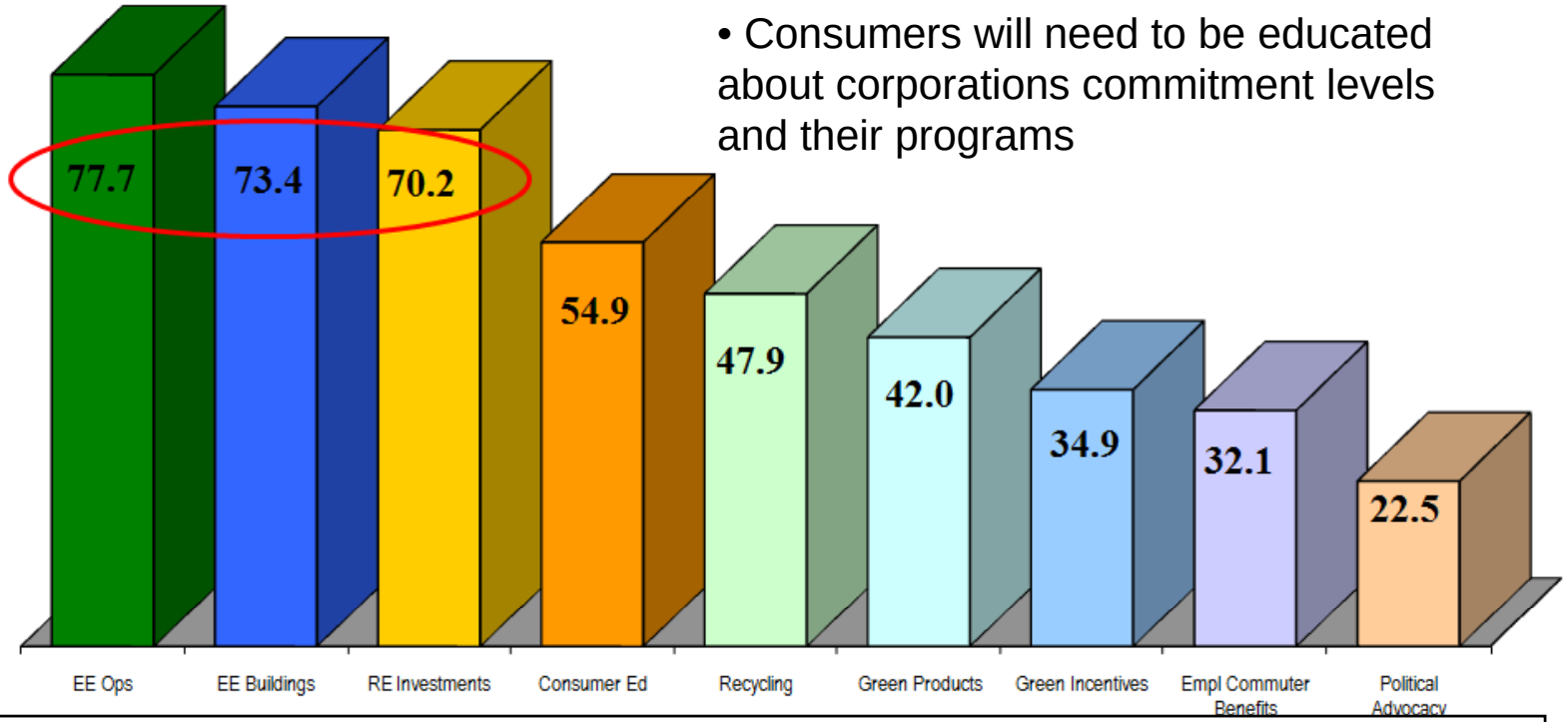
- Not surprisingly, a significantly higher percentage of the 55+ group (29%) gave 8 to 10 ratings for their utilities than those age 35 to 54 (21%) or those age 18 to 34 (22%)
  - The electric utilities most likely have a residual halo effect within this segment from pre-deregulation days
- The 18 to 34 segment doesn't really know anything other than deregulation in their adult lives, and cannot really remember the energy crunch of the 1970's.
  - There is an opportunity for electric utilities to "re-introduce" themselves to the younger segments and educate them about what they offer and how they operate.

Brand / Messaging Implications

- Brand awareness is very low in the energy and environment space, especially for pure play companies. This finding represents a challenge for consumers who are looking for renewable products and services, and an opportunity for companies seeking to fill the void.
- To build a strong brand in the green space, corporations must first commit themselves to tangible evidence of their leadership through investments in more efficient operations and green buildings before they are truly credible in the eyes of consumers.
- Effective green branding goes beyond mere public pronouncements and marketing, but requires a broader, demonstrable commitment to societal goals that result in measurable progress.

Perceptions of Corporate Responsibility

- Consumers have a very clear idea of what constitutes an environmental leader
- Corporations need to first demonstrate commitment by making investments to their operations and buildings to be more green and efficient if they want to be seen as a true leader in terms of environmental issues
- Consumers will need to be educated about corporations commitment levels and their programs



Q5. When thinking of a corporation trying to be an environmental leader, which of the following qualities or activities are most important?

Messaging: Believability

- **EcoAlign also tested some language currently being used by different companies and organizations for marketing and mission statements connected to the environment.**
- **Statements were chosen from a religious organization, a political candidate's campaign, corporations in various industries and an environmental advocacy group.**
- **Respondents were asked to rate each statement in terms of its believability.**

Messaging: Believability

- The statement from the environmental group ranked the highest
- The statements that rate the highest are also statements that involve a moral dimension, responsibility, commitment and an optimism that individuals can make a difference

	Ratings 8-10					
Statement	Total	Male (A)	Female (B)	18-34 (C)	35-54 (D)	55+ (E)
Margaret Meade once said "Never doubt that a group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has." We prove every day that ordinary people can accomplish extraordinary things.	56%	49%	63% (A)	44%	58% (C)	68% (CD)
Worshipping God. Loving His people. Caring for His creation.	41%	47%	56% (A)	40%	55% (C)	60% (C)
One of our toughest challenges as a retailer is how to continue to create value for our customers while minimizing our footprint on the environment.	43%	40%	47% (A)	39%	43%	49% (C)
Climate change isn't just an issue that's convenient to bring up ... it's one of the greatest moral challenges of our generation.	42%	41%	43%	36%	41%	49% (CD)

Q6. Now please look at the following statements and evaluate them in terms of believability and commitment to the environment. Please rate each on a scale of 1 to 10, with 1 being not at all Believable and 10 being Extremely Believable.

Messaging: Believability

• Females were more likely than males to find more of the statements believable, and the 55+ group was more likely than the other two age groups to find the statements believable.

•Democrats and Independents rated the climate change statement significantly higher than Republicans, while the Republicans were more likely to favor the worshipping God statement.

		Ratings 8-10				
Statement	**Total**	**Male (A)**	**Female (B)**	**18-34 (C)**	**35-54 (D)**	**55+ (E)**
Many companies say that what's good for the environment can also be good for business. We have a slightly different view: What's good for business must also be good for the environment and for people everywhere in the world.	42%	37%	46% (A)	33%	41% (C)	53% (CD)
Petroleum alternatives, look to the cornfield and the woodpile.	35%	32%	37%	32%	34%	39%
Wherever we operate, we always strive to minimize the environmental impact of our actions.	30%	27%	32%	25%	29%	35% (C)

Q6. Now please look at the following statements and evaluate them in terms of believability and commitment to the environment. Please rate each on a scale of 1 to 10, with 1 being not at all Believable and 10 being Extremely Believable.

So What?

Putting All The Pieces Together

- While there is a level of awareness regarding consumers' energy and environment footprint, there is confusion and a lack of understanding surrounding the language and terms used within these industries.
- Perceptions regarding energy conservation, efficiency, smart energy and the like are muddied by consumer ignorance and this directly affects consumer-purchasing behavior.
- Opportunity exists for companies and utilities to educate and guide consumers in the environment and energy space. By educating consumers about the energy they use, their impact on the environment and what actions they can take, consumers will feel more confident in making changes.
- Clearly consumers are aware they could be doing more in terms of conservation and efficiency, but they don't know what to do and they don't think it will be easy

Putting All The Pieces Together

- As Kermit the frog once said, “it’s not easy being green.” But it’s not impossible either. Real opportunity exists for companies to invest the necessary money in market research.
  - Market research is the skeleton of any successful marketing effort, and creating memorable, measurable campaigns that are grounded in core business, and customer expectations around the company’s brand and the value created.
- Align design with functionality. While customers are satisfied that most green technologies are “reliable,” more attention needs to be paid to how these technologies look and feel to the customer. Sustainability can be beautiful, and command a premium for that value
- By understanding how consumers perceive and talk about green technology, companies can address those concerns, in the consumers’ own words, and educate the marketplace about the various products, their benefits and value and the relative ease of use.

Putting All The Pieces Together

- The EcoPinion survey series points to a green gap around messaging and communications, and that language and terminology used by companies to describe green offerings and energy efficiency are often misunderstood or not valued.
- The gap extends to brand/branding as well. Brand awareness is very low in the energy and environment space, especially for pure play companies. Utilities in particular have an excellent opportunity to leverage existing customer perceptions and relationships into a leadership role.
- Brands matter. GE and Toyota are two good examples of how established corporations have translated their efforts into competitive differentiators in the energy and environment space.
- Effective green branding goes beyond mere public pronouncements and marketing. To build a strong brand in the green space, corporations must first commit themselves to tangible evidence of their leadership through investments in more efficient operations and green buildings before they are truly credible to the consumers.