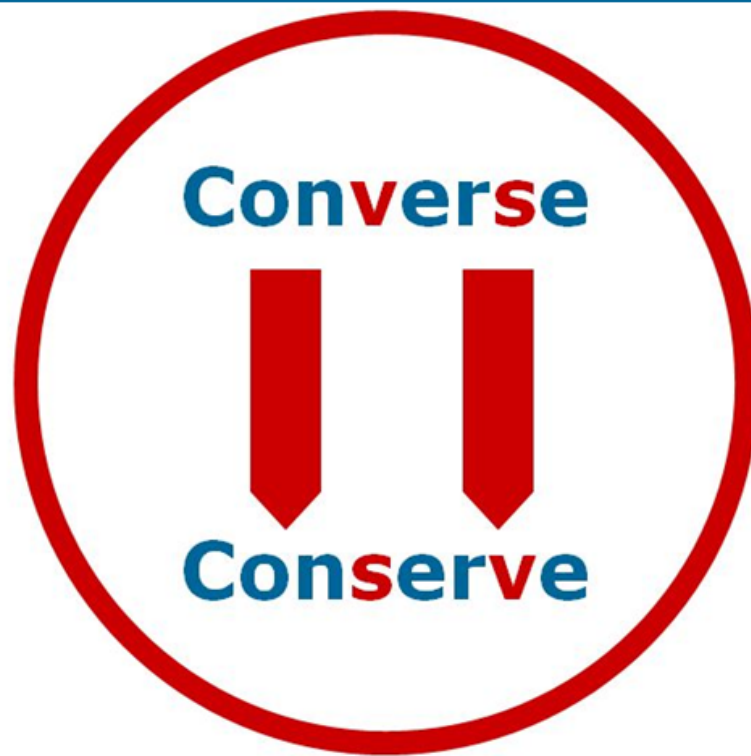




EcoPinion

Green Gap Redux:
Green Words Gone Wrong

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EcoPinion Survey Report

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Introduction

EcoAlign, a strategic marketing agency focused on energy and the environment, conducted 1,000 online interviews in September 2009. The sample was balanced to match the U.S. population by age, gender, region and ethnicity.

This sixth EcoPinion Survey Report has three objectives: 1) test consumer acceptance and understanding of terms used by the media and the energy industry for messaging and communications (such as “energy conservation” and “clean energy”), 2) compare these results with the same questions posed in October 2007 (EcoPinion Survey Report 1) to test whether the millions of dollars spent on advertising, public relations and communications over the past two years have changed consumer acceptance and understanding of the terms, and 3) test consumer perceptions of “smart grid” and “smart meter.”

Consumers generally have positive associations with the terms “energy efficiency,” “energy conservation” and “clean energy.” The words chosen by American consumers to describe their feelings towards key energy and environment concepts are positive. However, consumer understanding has remained the same or decreased since 2007.

This EcoPinion survey report points to the following:

- ❖ **The understanding gap** — Overall, while the growing amount of communications and media coverage using the terms tested seems to have created favorable associations in consumers’ minds, it appears to have done little to increase consumer understanding of basic terms since 2007. It is possible that the increased media coverage may have had the opposite effect.

- ❖ **The language gap** — Although perceptions around the terms commonly used to discuss energy conservation and smart energy are, in general, favorable, the language used to articulate conservation and smart energy remain rooted in industry jargon based on regulatory, policy and operational modes of thinking. This has created a paradox: although people favor the ideas and intentions associated with energy conservation and smart energy, they do not understand the meaning of the terms themselves. Therefore, consumers have yet to “buy into” the terms because they do not exactly understand what they are getting in return. A few specific terms, such as “demand response” and “peak pricing” should not be used for external communications. Respondents clearly indicated that they do not understand these terms and find them to be negative. Language needs to be simple, value-driven and personal for maximum consumer engagement. There is clearly a need to bring a more educational and marketing focus to the discussion to move towards greater levels of awareness, engagement and understanding of consumers as individuals.
- ❖ **The commodity gap** — When evaluating the adoption of renewable energy or energy conservation, two-thirds of Americans focused on either cost or value. Providers of these technologies, services and programs have a challenge in front of them to move from a commodity focus (cost) to a value creation focus in the energy market.
- ❖ **The smart grid gap** — Consumers believe that investments in the “smart grid” will provide environmental benefits, with consumers and government benefitting the least. Given that almost two thirds of Americans are cost conscious or value buyers, it is imperative that communications and marketing around “smart grid” build value dimensions that will justify the price increase that most consumers will pay; otherwise, smart grid will be grid locked.

On the one hand, consumers have generally positive associations with these concepts and terms. This means that the last few years of enhanced communications around sustainability has helped people to internalize information and form a point of view. On the other hand, the “green gap” between consumers’ stated intentions (what people say is important), and consumers’ actions, is still relevant. The green gap is driven by a series of consumer, economic and marketing barriers. The green gap signals that the cognitive awareness created around conservation, clean energy and sustainability as a whole has not yet translated into discernible value creation from a consumer perspective, and had not led to measurable changes in behavior.

Solving the green gap requires providing a link through education and marketing to a personal sense of meaning, value creation and engagement in order to make decisions.

Word Associations

When asked to describe their feelings about specific terms using only one word, American consumers overwhelmingly used words such as “good,” “important,” and “necessary” to describe how they felt about energy conservation, energy efficiency, smart energy and clean energy. It is particularly interesting to note the prominence of the word “good” associated with four out of the five terms tested. The respondents also consistently linked those terms to a functional context such as “green” and “savings.”

All responses signal the coexistence of two customer profiles: 1) one for which conservation and clean energy are the right thing to do (good, necessary, important) and 2) one for which conservation and clean energy are a financially savvy thing to do (savings, save, efficient, money, cheaper). This result confirms a recurring finding of the EcoPinion series: a growing number of consumers understand the importance of conservation and clean energy on an intellectual and rational level but have not moved this awareness into action. The challenge for marketers is to engage with consumers on a more deeply emotional level to transform beliefs into the values that shape consumer decisions.

“Demand response” proved to be ambiguous at best and problematic at worst, with many consumers using terms such as “unknown,” “what,” and a range of other negative associations. The word clouds presented here convey the relative frequency of word use, with more prominence given to frequently used words.

Energy Efficiency and Energy Conservation

Consumers made positive associations with both energy efficiency and energy conservation, with the relatively larger size of words such as “good,” “important” and “necessary,” indicating a majority of respondents felt positive towards these terms. Energy efficiency had more of a “savings” or cost-focus as a subtext, while responses for energy conservation focused more on “green” as a subtext.

Table 1: Definitions Selected for the Terms

Definitions	Year	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	2007	28%	22%	10%	13%	3%
	2009	29%	21%	11%	17%	5%
Performing the same services but using less power	2007	20%	28%	3%	15%	2%
	2009	24%	32%	5%	17%	4%
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	2007	24%	8%	73%	12%	4%
	2009	23%	10%	69%	12%	5%
The use of computers, electronics, and advanced materials to make energy use more efficient	2007	11%	33%	8%	33%	5%
	2009	11%	28%	9%	31%	7%
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	2007	16%	9%	6%	27%	86%
	2009	14%	9%	5%	23%	80%

In another survey question, consumers were asked to choose from a list of adjectives to describe energy conservation, energy efficiency, demand response, smart energy and clean energy. The same terms and adjectives were presented in 2007.

Overall, there was little change from 2007 to 2009 on how consumers described the terms. For most of the terms tested, there was a limited change (a percentage point or two) from two years ago. The biggest change was how the respondents described “smart energy,” indicating that more consumers are aware of the term and make usually positive, associations with its use. (See Appendix Table A1 for the complete responses for five terms and 16 adjectives, 2007 and 2009. Table 2 is based on Table A1.)

Table 2 indicates that energy conservation, energy efficiency, smart energy and clean energy are all described positively by a majority of consumers. Demand response is described mainly in the negative.

Moreover, energy conservation and energy efficiency are described as “valuable” and “smart” while smart energy and clean energy are described as “forward looking.” This choice of words indicates that smart energy and clean energy are set in the future. It indirectly implies a transformation—a change required to get to that future—that 44% of people believe to be expensive. Efficiency and conservation, on the other hand, are something that people inherently understand as part of their daily lives. They do not require a price from an economic point of view. Once again, people intellectually understand the importance of conserving energy or developing a new clean energy solution. Our work continues to point out the barriers that lay below the rational sphere, and touches on the system of values, beliefs and worldviews that shapes people’s decisions and defines societies.

Table 2: Top Five Descriptive Adjectives

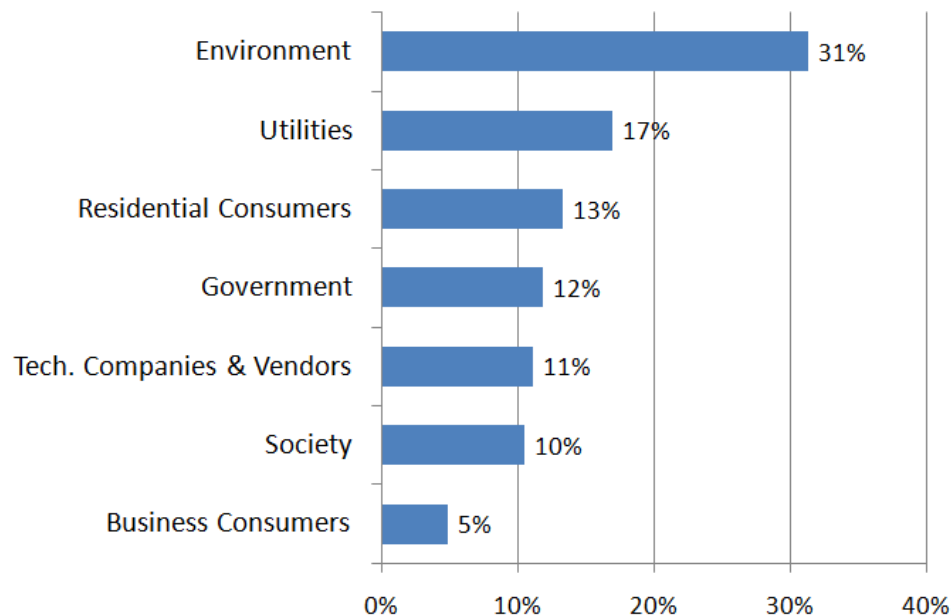
Energy Conservation		Energy Efficiency		Demand Response		Smart Energy		Clean Energy	
Valuable	59%	Valuable	63%	Authoritative	54%	Smart	71%	Forward looking	58%
Smart	57%	Smart	59%	Unpopular	45%	Forward looking	58%	Smart	55%
Community oriented	54%	Easy to use	51%	Annoying	45%	Futuristic	55%	Valuable	54%
Forward looking	45%	Reliable	51%	Unhelpful	42%	Visionary	55%	Futuristic	53%
Easy to use	37%	Forward looking	49%	Boring	36%	Valuable	52%	Visionary	52%

Smart Energy and Smart Grid

Thirty one percent of Americans expect the environment to benefit the most from investments in smart grid, with a 14 percent gap between environment and utilities (the second most selected choice about “who will benefit”). Younger people (18 to 34) were most likely to believe that the benefits of the smart grid will be the environment, with 39 percent choosing the environment as the entity to benefit most from smart energy and smart grid.

Overall, the respondents believe that the benefits of smart grid investments would be fairly evenly shared for five of the seven entities tested, with the following each receiving 10 to 17 percent: utilities, tech companies and vendors, residential consumers, society and government. Only five percent of respondents chose business consumers as the leading beneficiary of smart grid investments.

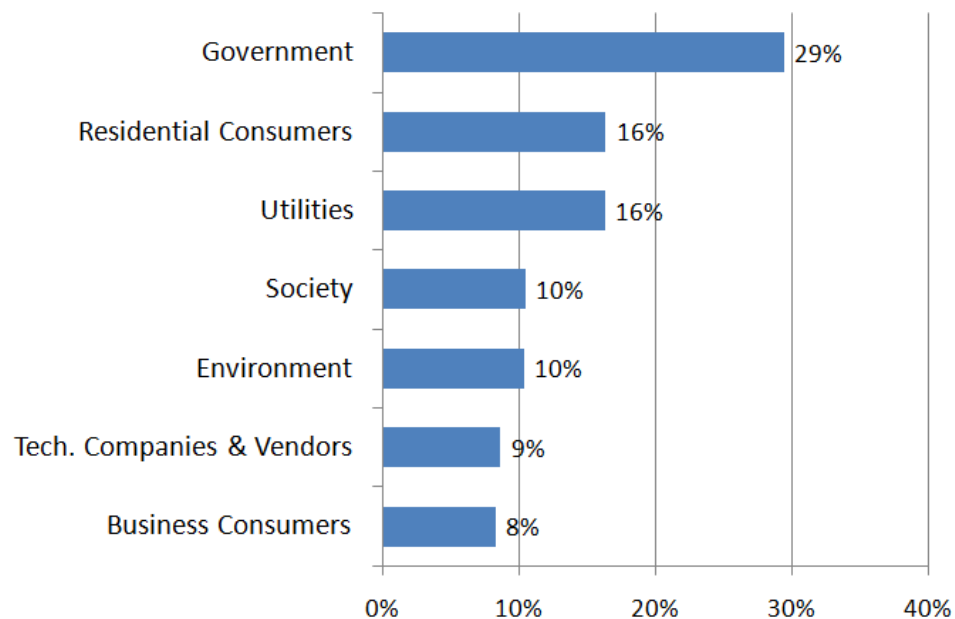
Chart1: Entity to Benefit Most from Smart Energy and Smart Meter Investments



When looked at the other way—what entity would benefit the least from smart grid investments—almost one third of respondents indicated that the government would benefit the least. This is an interesting finding given the commitments being made by government through stimulus spending or other public policy initiatives focused on smart grid investments and research, including through government procurement, building efficiency, etc. Forty percent of older Americans (55+) believed that the government would benefit the least from smart grid investments.

From a cultural anthropological perspective we can identify an implied separation that people make between society and environment when it comes to perceived smart grid benefits. This response signals that people see the environment as distinct from society, rather than critically intertwined. For much of the past 200 hundred years, humans have been thinking about the environment as a resource to exploit for the advancement of the human condition, that is, for progress and prosperity. As a result, damages to the environment have (or still are) treated as an “externality.” As marketers focus on articulating the value of new energy technology, they ought to do a better job at bringing societal value up to the front of the debate, critically connected to individual values, and critically linked to the natural environment.

Chart 2: Entity to Benefit Least from Smart Energy and Smart Meter Investments



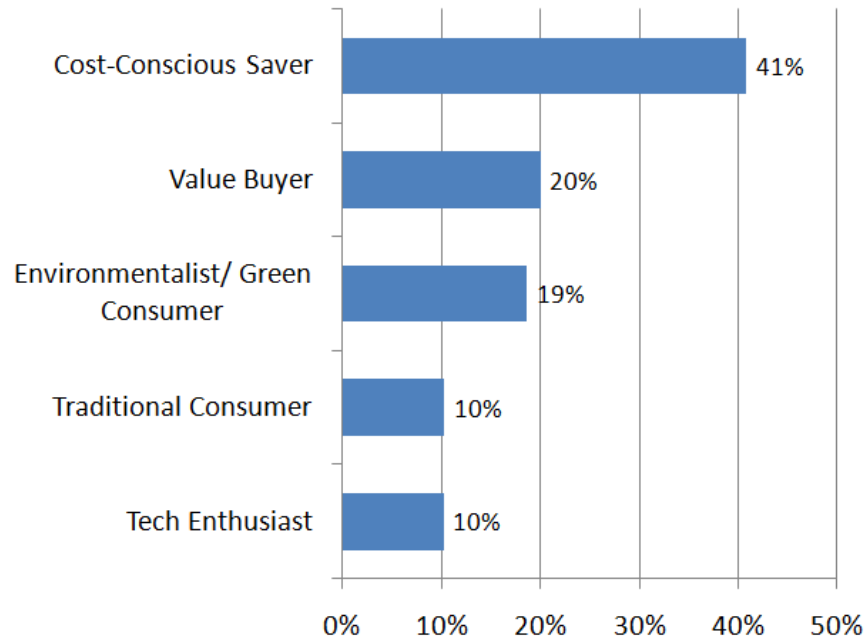
With smart energy and smart meter, there is an expectation that consumers will use new technologies and programs to manage energy differently and more efficiently. Consumers were asked to think about how they would describe themselves regarding what would motivated them as individuals to make decisions about whether or not to use new technologies or participate in new energy programs. Five descriptions were offered:

- ❖ **Tech Enthusiast** — Attracted to new technologies or programs that improve performance or offer new services
- ❖ **Traditional Consumer** — Pay the bill and would prefer not having to make choices
- ❖ **Environmentalist/ Green Consumer** — Most concerned about how energy choices affect the environment
- ❖ **Value Buyer** — Focused on the best value even if it is not the lowest cost
- ❖ **Cost-Conscious Saver** — Focused on the lowest priced product that meets your needs

Forty one percent of consumers described themselves as being a “cost conscious saver,” with a focus on the lowest-priced product. The next leading response at 20 percent was “value buyer,” focused on the best value even if not the lowest cost. Therefore, almost two-thirds of Americans focused on either cost or value in relation to new technologies and programs to manage energy differently and more efficiently. Providers of these

technologies, services and programs have a challenge to move from a commodity focus (cost) to a value creation focus in the energy market.

Chart 3: Motivation on the Use of New Technologies/Participation in New Energy Programs



There were some interesting gender differences. Women were more likely to describe themselves as a “cost-conscious saver” by 6 to 7 percentage points, no matter their age. Men, especially younger men, were much more likely to describe themselves as a “tech enthusiast.” A roughly equal number of men and women described themselves as “environmentalist/green consumer.”

There is a value gap between consumers’ perceived value proposition of smart grid versus the economic realities of implementation. The smart grid is believed to provide mainly environmental benefits and consumers and government are thought to benefit the least from such investment. Given that almost two thirds of Americans are cost conscious or value buyers, it is imperative that communications and marketing around “smart grid” build value dimensions that will justify the price increase that most consumers will pay; otherwise, smart grid will be grid locked.

Additionally, the chart provides the structure for a customer acquisition roadmap that targets progressively selected segments based on their defining characteristics. Most, if not all, messaging today reaches everybody with one-size-fits-all approaches. These are not effective at acquiring customers. This is especially important given the perceived economic barrier that affects adoption of new technologies around energy.

Using a scale of 1 to 10, with “1” being “no understanding/don’t know” and “10” being “very good understanding,” consumers were asked their level of understanding for terms used for billing and payment options and offerings connected to smart grid and utility bills. The terms tested included:

- ❖ Peak pricing
- ❖ Time of use pricing
- ❖ Budget billing
- ❖ Flat billing
- ❖ Green pricing
- ❖ Fuel supply pricing

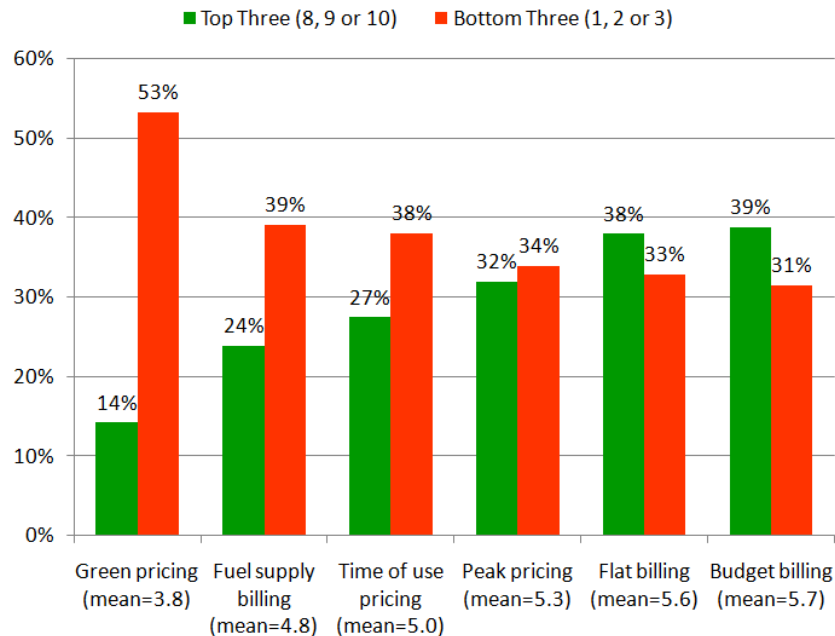
While the average (mean) for five of the six terms tested was close to 5.0 (ostensibly signifying that customers had a workable but not very detailed knowledge), customers were actually divided between “very knowledgeable” (a 9 or 10 on the scale), and having “very little knowledge/understanding” (a 1 or 2 on the scale) for most of the terms tested. In other words, there was very little middle ground.

Chart 4 displays data that indicate that 53 percent of consumers had very limited or no understanding of “green pricing” (a 1, 2, or 3 on the scale). An astounding 36 percent indicated that they had no understanding/don’t know (1 on the scale) about green pricing. Overall, “green pricing” had the lowest average score based on these consumer statements regarding level of understanding of the terms. The other terms, with an average of 4.8 of 5.7 (Chart 4) showed a good deal of diversity in the responses.

Appendix Chart A1 displays more detail for two of the terms. “Peak pricing” had an average score of 5.3, but about one third of respondents claimed low levels of understanding and similar numbers claimed high levels of understanding. “Budget billing” had a similar spread among each of the possible choices from 1 to 10.

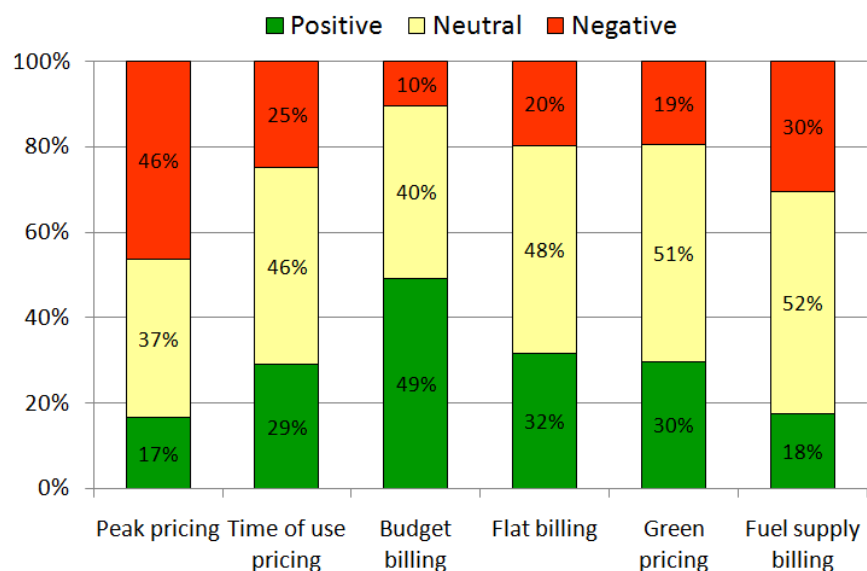
Older Americans (55+) had a much firmer grasp of the meaning of the terms tested, with a level of understanding 7 to 13 percent higher than younger Americans (18 to 34). This is probably a factor of paying bills much longer, but still points to a need for educating younger Americans about paying bills and bill payment options.

Chart 4: Average and Extremes: Level of Understanding of Terms



When asked to rate their perceptions of value (positive, neutral or negative) associated with alternative billing and payment options, a majority of consumers had a neutral perception of the value connected to time of use pricing, flat billing, green pricing and fuel supply billing. Forty nine percent of consumers felt that there was a positive value (the top response) associated with budget billing. On the other hand, 46 percent felt that there was a negative value (the top response) associated with peak pricing.

Chart 5: Alternative Billing and Payment Option Perceptions



What does it all mean?

We draw the following conclusions from this and other EcoPinion research, and from our social science research series, Project Energy Code.

1. **There is a need to move from cognitive awareness to beliefs that drive decisions.** Consumers have attained a level of cognitive awareness that energy conservation, clean energy and sustainability are good, important and necessary. We now need to move people from thinking to acting. People must carry their stated beliefs into their personal lives through actions. It is necessary to engage the hearts and minds of people through enhanced segmentation and more emotional connection targeting psychographic, value-based segments.
2. **There is a need to make sustainability at large an economic value.** To increase the speed of adoption and relevance to consumers, consumers need to more clearly see economic value connected to sustainability, energy conservation and clean energy. This value needs to be customized and personal along with the societal and environmental benefits now associated with these terms. Price is a key barrier to adoption if not connected to value creation. Premiums are derived from brands and/or concepts that create an emotional connection and fulfill larger needs such as higher identity/status, greater connection to a community, spiritual fulfillment, family well being, legacy, etc.
3. **There is a need to make more offerings available.** There must be more products and offerings that make change possible, real and visible. People may feel overwhelmed: they want to act, but they do not know yet what they can do to change. They have not internalized the need to change, yet frankly, there is little to show with respect to the results of positive steps taken. Negative data (glaciers melting, polar bears struggling, etc.) are measured and communicated far more often than positive data.
4. **There is a need to make offerings visible.** Cheap talk is cheap! Words matter and messaging and value articulation need to be aligned with motivational flows of people and to what people can digest and act upon. Today, green words used by the media, industry and stakeholders are often political/legalistic, industry-focused, or scientific in nature. As a result, consumers have positive associations with these terms, but no real sense of significance or meaning connected to them personally. Communications must create a non-judgmental, inspiring sense of urgency that articulates a positive vision and brings people to act.
5. **There is a need to provide transitional offerings right away.** Timing is important, and solutions are required immediately to keep customers engaged until other solutions come to fruition that have a

more robust green and economic value. Market segmentation, traditional and enhanced, will be necessary to identify targets that will be aligned with timing constraints and help move progressively from niche to masses.

For clean energy, energy conservation and sustainability to become successful, marketing needs to act on three dimensions: awareness, price and beliefs. This triangle of intertwined dimensions is central to effective communications and building conversations that lead to growth.

For more information about adding questions to future surveys, the EcoPinion subscription series or for customized survey and research efforts, please contact Jamie Wimberly at (202) 483-4443 or jwimberly@ecoalign.com.

For more information about EcoAlign, visit our website at www.ecoalign.com.

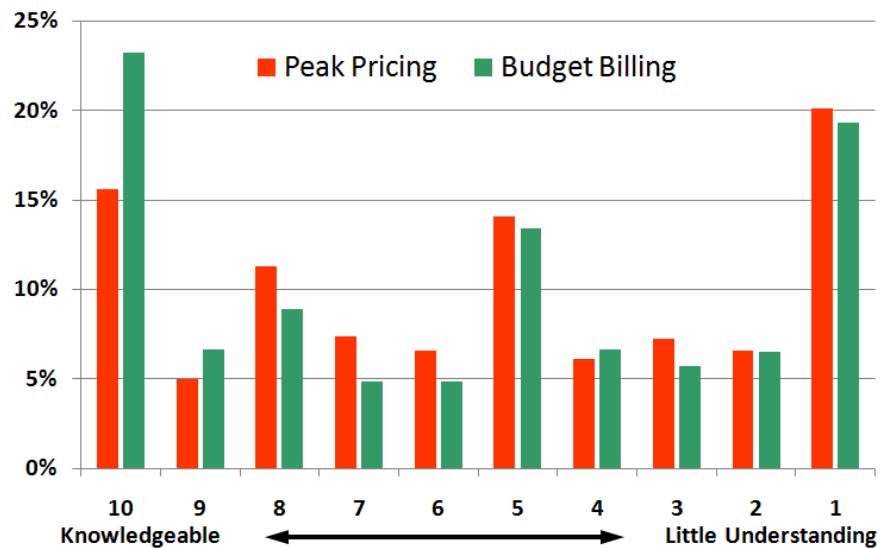
Appendix

Table A1: Descriptive Adjectives Used for the Terms

Adjective	Year	Energy Conservation	Energy Efficiency	Demand Response	Smart Energy	Clean Energy
Forward looking	2007	45%	50%	28%	57%	58%
	2009	45%	49%	27%	58%	58%
Authoritative	2007	24%	20%	54%	19%	12%
	2009	23%	19%	54%	18%	14%
Smart	2007	58%	60%	27%	70%	56%
	2009	57%	59%	25%	71%	55%
Fun	2007	23%	26%	12%	31%	25%
	2009	23%	27%	12%	34%	27%
Annoying	2007	18%	11%	42%	11%	10%
	2009	18%	11%	45%	11%	13%
Community oriented	2007	55%	42%	34%	35%	45%
	2009	54%	40%	32%	37%	42%

Adjective	Year	Energy Conservation	Energy Efficiency	Demand Response	Smart Energy	Clean Energy
Unpopular	2007	24%	11%	44%	12%	17%
	2009	23%	11%	45%	12%	18%
Visionary	2007	36%	38%	27%	53%	55%
	2009	34%	39%	24%	55%	52%
Old Fashioned	2007	29%	18%	31%	11%	8%
	2009	29%	16%	33%	10%	10%
Boring	2007	20%	12%	35%	12%	10%
	2009	18%	12%	36%	12%	13%
Futuristic	2007	27%	35%	25%	56%	52%
	2009	27%	35%	25%	55%	53%
Easy to use	2007	38%	53%	15%	39%	34%
	2009	37%	51%	15%	43%	35%
Expensive	2007	16%	21%	31%	27%	44%
	2009	16%	22%	31%	29%	44%
Valuable	2007	62%	64%	27%	51%	55%
	2009	59%	63%	23%	52%	54%
Unhelpful	2007	14%	9%	40%	10%	8%
	2009	14%	10%	42%	10%	11%
Reliable	2007	35%	51%	21%	39%	35%
	2009	37%	51%	19%	41%	35%

Chart A1: Range of Responses for Selected Terms



Methodology

The survey was conducted online in September, 2009 among a sample of 1,250 online adults across the U.S. Figures for gender, age, and geography were weighted where necessary to match their actual proportions in the population.

In theory, with probability samples of this size, one could say with 95 percent certainty that the results have a statistical precision of plus or minus 3.1 percentage points of what they would be if the entire adult population had been polled with complete accuracy. Unfortunately, there are several other possible sources of error in all polls or surveys that are probably more serious than theoretical calculations of sampling error. They include refusals to be interviewed (non-response), question wording and question order, and weighting. It is impossible to quantify the errors that may result from these factors. This online survey is not a probability sample.

Online sample for the study was drawn from Survey Sampling International's SurveySpot online consumer panel. Survey Sampling is recognized as the premier sample provider in the market research industry. The SurveySpot panel currently has 1.6 million panel members who are recruited using a wide variety of online and offline methods, including website registrations, email invitations and telephone recruiting. For this study, invitations were e-mailed to potential respondents targeted by gender, age, census region and ethnicity.

These statements conform to the principles of disclosure of the National Council on Public Polls.