



EcoPinion

Customer Perceptions of
Green Technologies

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**"It's not that easy bein' green;
Having to spend each day the color of the leaves ..."**

-- Kermit the Frog Song, Lyrics by Joe Raposo

Summary

EcoAlign, a strategic marketing agency focused on energy and the environment, conducted a total of 1,000 online interviews in December 2007. The sample is balanced to match the U.S. population by age, gender, region and ethnicity.

The second EcoPinion Survey provides further evidence of a green gap between willingness to adopt or purchase green products, services and technologies, and consumer value perceptions around those offerings. While concern for the environment is at an all time high, consumers think that many forms of green technology (renewable, energy efficient or recycled materials) are cost prohibitive, difficult to understand and maintain, and aesthetically unappealing.

The good news is that more Americans are adopting some form of green technology, and those that have adopted tend to have a much more positive view regarding green technologies. Moreover, their level of concern should their neighbors install different forms of green technology was quite low, an interesting finding given the increasing number of high-profile disputes over siting wind energy farms.

This green gap in consumer perceptions offers insight into the dichotomy of customers' stated intentions, e.g., their desire to be more green or frugal with energy consumption, and their actual behavior. It is almost as if consumers are holding their noses to take medicine they perceive to taste awful but is necessary to bring the fever down. The second EcoPinion survey results point to the clear need for companies to work harder to connect their products and services with the customer's value chain around convenience, comfort, cost and design.

Top Line Findings

1. Forty six percent (46%) of consumers interviewed have adopted some form of green technology. This percentage jumps significantly among the 55+ age group.
2. 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.
3. 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.
4. 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.
5. 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.

Adoption of Green Technology

We learned in the first EcoPinion survey that consumers may be aware of terms such as energy efficiency, energy conservation and so forth, but they do not always really know or understand what the terms mean. In light of that fact, consumers in this survey were shown a definition of green technology and given some examples (such as solar panels, geothermal heat pumps, etc). Then they were asked if they have adopted any form of green technology in their homes.

Forty six percent (46%) of consumers said they have adopted some form of green technology, while 54% answered they have not. However, the percentage of consumers who have adopted is significantly higher in households with incomes over \$50k, households with two or more people living in the home and among consumers with college educations or age 55 and over. There were no significant differences among the different regions of the U.S.

Consumer Perceptions of Green Technology

The second EcoPinion research points to a growing gap between their willingness to adopt green technology and consumers' opinions or perceptions regarding the value attributes of green technology.

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. On one end you find the positive attribute, such as "cheap", with the more negative attribute, "expensive" at the other end. 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, 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.

The following table illustrates the value assessments of the respondents. The ratings are combined 1 through 4 and 5 through 7, and the mean rating of each is included.

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...?

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%	

The relatively good news is that almost 50% of respondents find green technology reliable, and that jumps to 60% among adopters. Out of all the positive attributes, reliability received the highest rating. This shows that consumers are starting to understand that green technology does not mean having to risk whether the technology will work or not.

However, the large percentages of consumers rating green technology ugly, difficult to understand and difficult to use shows that a lot of work still needs to be done to convey the benefits of green technology. It also helps explain why the majority of consumers have not adopted any form of green technology. Conversely, the low levels of concern regarding the installation of green technology make this challenge much more palatable.

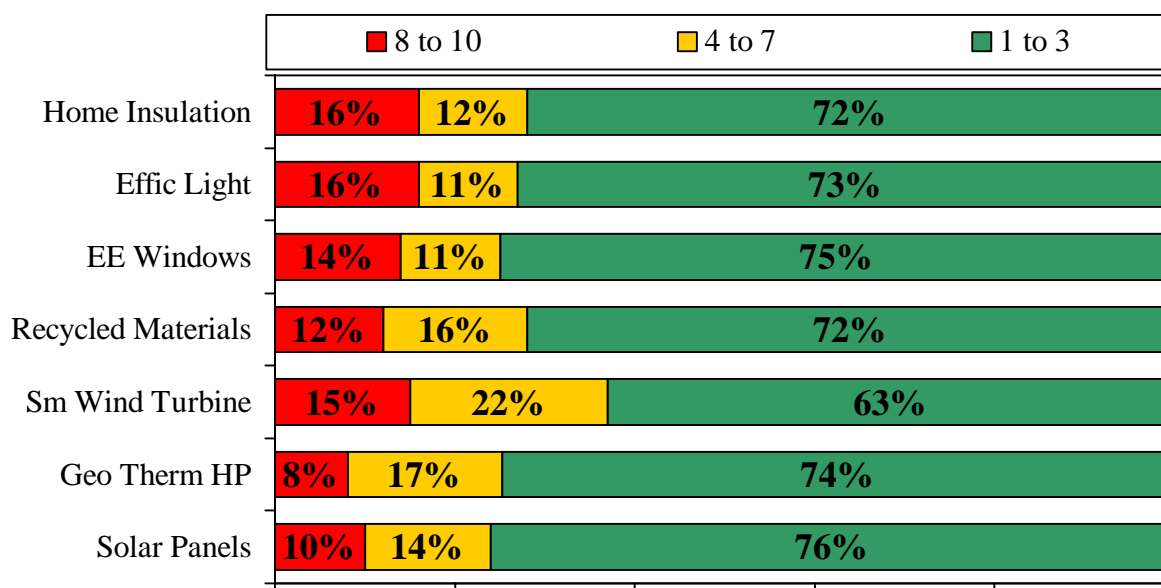
Installation of Green Tech: Levels of Concern

Respondents were asked about their level of concern if their neighbor should install different forms of green technology. They were asked to rate their level of concern using a 10 point scale, where 10 means highly concerned and 1 means not at all concerned.

Interestingly, 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 any of the technologies mentioned. They were joined in their lack of concern in many instances by those respondents aged 35 to 54. There seems to be a greater opportunity for education and awareness among the 18 to 34 age group, due to the higher levels of concern among them.

The following chart illustrates consumers' concern levels surrounding the different types of green technology.



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.

Not surprisingly, there were some geographic differences. Those consumers in the West were more likely to be concerned with small wind turbines, solar panels and recycled materials. Those in the Northeast 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.

Of note is that households with only one individual in residence were much more likely to be concerned with everything except geothermal heat pumps and wind turbines than those household with 2 or more people residing in the home.

Interestingly, home insulation and efficient lighting incurred a higher level of concern than small wind turbines and solar panels. Companies who sell these types of products have a real opportunity to address consumer concerns and educate the marketplace about their products.

Consumers who registered a level of concern at 6 or higher were asked what, specifically, they were concerned about. Thirty nine percent (39%) mentioned appearance and safety, 34% mentioned noise, 33% said property values and 24% mentioned energy bill cost increases. Those consumers age

55 and over were more likely to mention noise concerns than their counterparts. Additionally, those in households with incomes over \$50k were more likely to mention appearance and property values as their concern.

What Does it All Mean?

The first EcoPinion survey pointed 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.

Once again we see that consumer behavior and perceptions regarding energy efficiency and green technology are muddled. Consumers are indicating their willingness to adopt green technology and products, but consumer perceptions that green technology is ugly, hard to use and expensive represent some of the barriers directly affecting consumer-purchasing behavior.

As Kermit the frog once said, "it's not easy being green." But it's not impossible either. Real opportunity exists for companies to:

1. 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.
2. Go deeper and articulate more compellingly the reasons why people should care and act in regard to the green tech offering. Energy tech companies are dominated by an engineering-centric, product-oriented view of the world, yet customers are more attuned to emotional appeals. This approach must be achieved through careful messaging segmentation and utilizing the full range of delivery channels, including new media.
3. Align design with functionality. While customers are satisfied that most green technologies are "reliable," meaning that they will work as advertised, 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. It offers companies the chance to assess their corporate communications, messaging and advertising and address the gap so that consumers understand better what is being offered and what the value is.

It continues to be EcoAlign's position that lack of understanding and education leads to consumer paralysis. But we believe that if we track consumer awareness, perceptions, attitudes and behavior and ask *different* questions in order to communicate differently with consumers, the gap between the stated intentions of customers to be more conscious of their energy and environment footprint and their actual purchasing behavior can be closed.

For more information on adding future questions to be tested, the EcoPinion subscription series or for customized survey and research efforts, please contact Dana Cogar at (703) 869-7636 or dcogar@ecoalign.com.

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

Appendix

1a. Definition of Green Technology

Green energy technologies are those technologies that utilize natural or renewable resources, conserve energy or are more sustainable from an environmental perspective by reducing pollution and overall energy consumption. For your home, green energy technologies range from solar power, small wind power, geothermal heat pumps to more energy efficient technologies such as efficient light bulbs, efficient home appliances or double-paned windows, or even materials that help conserve energy and the environment such as recycled building materials or insulation.

Methodology:

A total of 1,000 online interviews were conducted in December. The sample is balanced to match the U.S. population by age, gender, region and ethnicity. (Online sample is provided by Survey Sampling International's (SSI) SurveySpot online panel. SSI is recognized as a leading sample provider to the market research industry.)

Consumers across the nation were surveyed on their adoption of and concern regarding the installation of green technology. In addition, consumers were asked to choose attributes that best reflected their assessment of green technology.