

nielsen



Energy Trends

Highlights on consumer energy usage

October 2009

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Introduction

Rising energy costs, fears about the declining condition of the environment and the onset of new "green" initiatives will drive change in the way people use and conserve energy. Consumers now have more energy choices but they also have more questions as to which options are best for them. Although many consumers have adopted more environmentally-friendly habits, others have not acted as quickly to embrace these measures.

To track changes in the energy sector and its impact on consumer behavior, the Nielsen Energy Audit was administered,

which is an annual survey of more than 32,000 respondents conducted online. This report highlights some of the survey's more notable emerging trends for 2009.

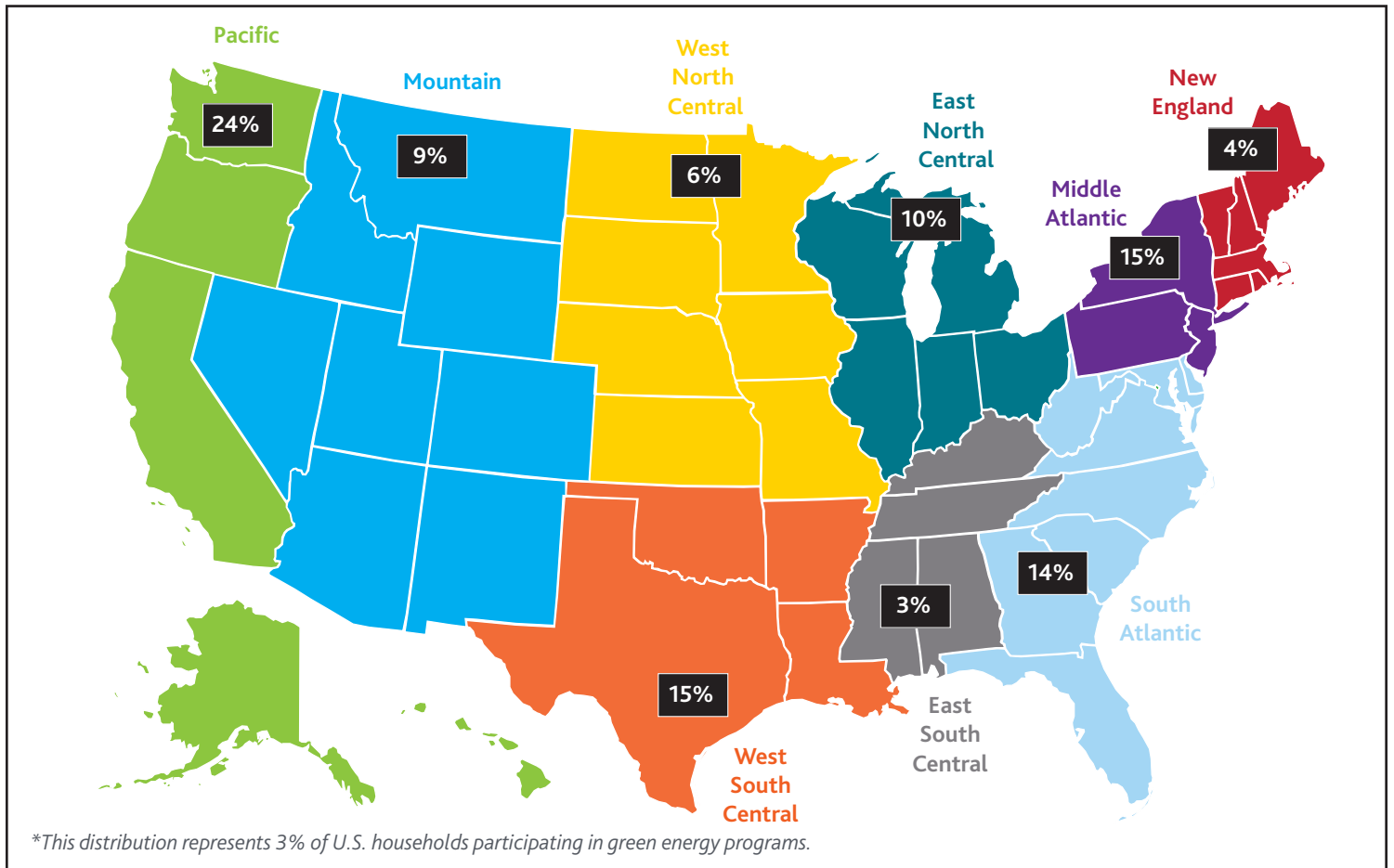
Green energy programs

Renewable energy has been the buzz recently and demands are growing in the U.S. to supplement our current energy supply with cleaner, "greener" sources of energy. As a result, utilities are offering green pricing programs to their residential customers. Some states, such as California, have had these programs in effect for many years, while other states are still in their



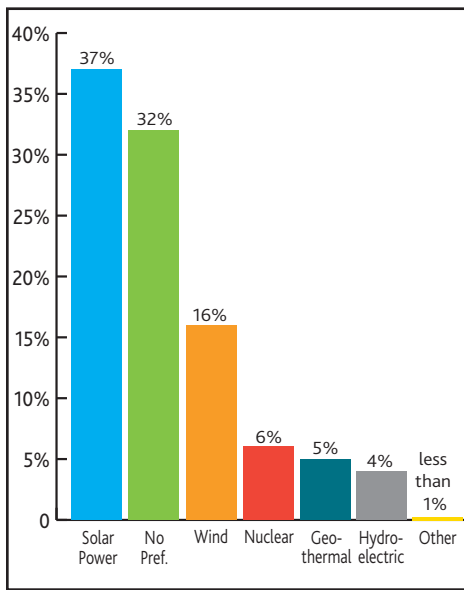
infancy of administering them. Three percent of households in the U.S. participate in such programs and there are distinctive differences from region to region, the distribution by region can be seen below. Not surprising, the highest concentration of participants is in the Pacific region.

Green Energy Program Participation by Region*



The survey shows that green pricing program participation is greatest among higher educated households who earn an income of \$50K or more. Due to the fact that installation is not necessary, we find that there is no distinctive difference between homeowners and renters as a predictive demographic. However, in terms of political affiliation, liberal and moderate households make up a majority of the green pricing program participants.

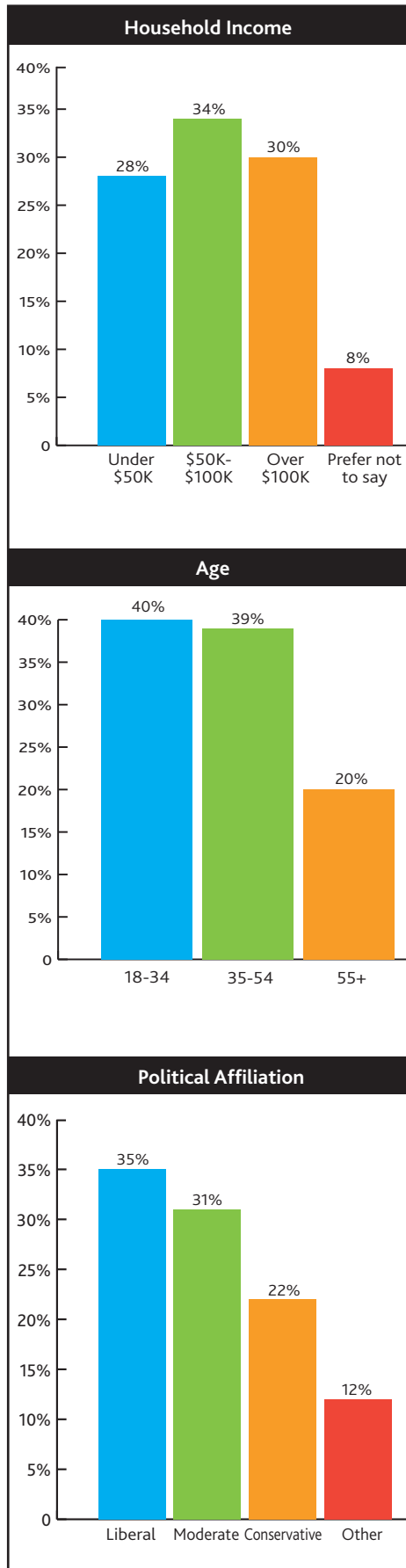
Preference for Renewable and Carbon Neutral Sources



Renewable energy can be produced by many different resources and each consumer has their own personal preference. When we questioned households about their primary preference for green energy sources, solar energy emerged as the leading preference with 37% of all survey respondents and wind power coming in second at 16%.



Green Energy Program Participation

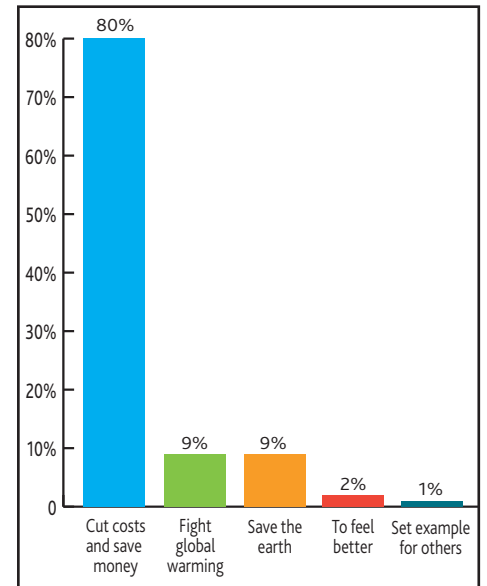


Energy efficiency

There are a variety of motivations for a consumer to conserve energy. When targeting consumers to conserve energy, companies usually ask themselves "who are the 'green' households?" While "green" households remain a good target for energy efficiency programs, 80% of households claim their primary motivation for conserving energy is to "cut energy costs and save money".

Energy efficiency programs have a high market potential because cost savings seems to be the primary motivator for conserving energy. Tailoring separate messages for "green" and "save money" audiences will result in a greater penetration of Demand Side Management (DSM) programs.

Primary Motivation for Conservation



Government programs are doing their part to financially incentivize consumers to make energy efficient improvements in their homes with the Energy Star Program that offers a tax credit of up to \$1,500 for households that purchase energy efficient products. Eight percent of households have taken advantage of this incentive and another 21% of households claim they plan on taking advantage of the incentive prior to its expiration on December 31, 2010. This is great news for utilities as well as home improvement centers such as Home Depot® and Lowes®.

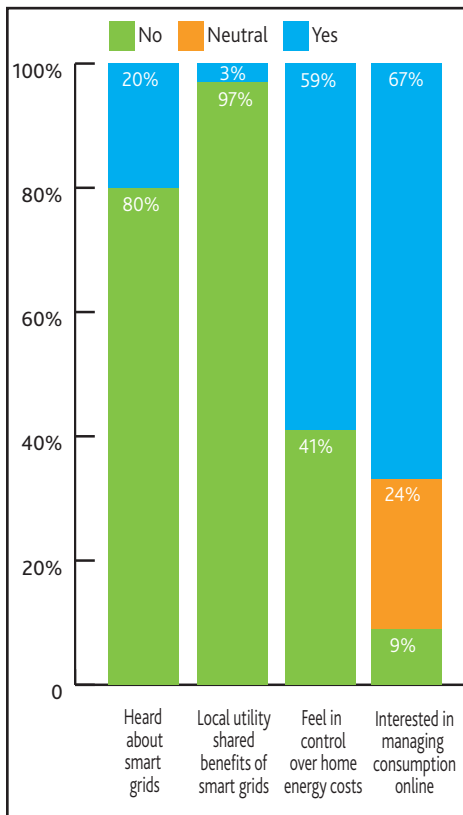
Smart grids

Do you know what a smart grid is and how households can benefit from using them? If your answer is "No", you are not alone.

A smart grid delivers electricity from suppliers to consumers using digital technology to save energy, reduce cost and increase reliability and transparency. While 20% of respondents have heard about smart grids, 97% claim that there has been no communication from their local utility that illustrates the benefits of this emerging technology. This may be because much of the cost savings from smart grids doesn't necessarily require involvement from the consumers.

That said, this new technology will offer different pricing opportunities and the ability to manage energy consumption online. This is very important given that 41% of house-

Knowledge and Interest in Smart Grids



holds feel they have zero to little control over their energy costs and 67% would be interested in the ability to manage their consumption online.

Plug-in hybrids

Rolling into dealerships in about a year, the introduction of the Plug-in Hybrids/Electric Vehicle (PHEV) will jump-start what seems to be the long process of flipping the U.S. dependency on oil and bringing the fuel for our vehicles stateside. However, before the launch of the PHEVs, auto manufacturers and utilities have a lot to consider.

Auto manufacturers are seeking the answers to many questions such as:

- What's the market for this type of vehicle?
- What should the body style (interior and exterior) look like?
- Is the battery range sufficient?

Utilities are exploring answers to other questions such as:

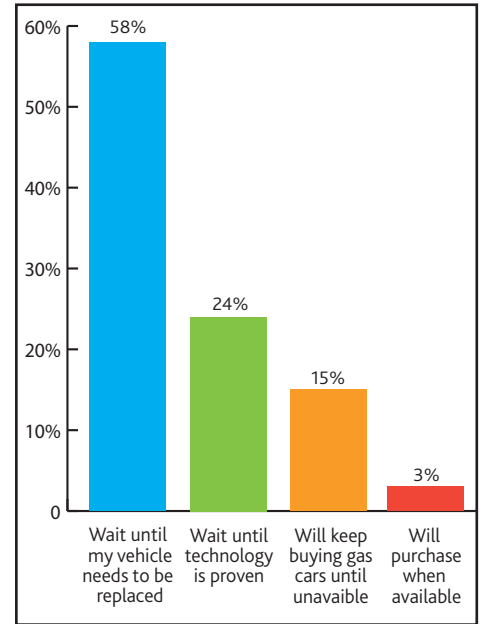
- What is the market for the PHEV in our service territory?
- Where and when do people plan on charging these vehicles?
- How will this impact our electricity load?

Nielsen posed a question in the latest Energy Audit survey to help gauge the thoughts and consideration around the adoption of the PHEV. Three percent of households plan on buying a PHEV as soon as they are available. An additional 25% said that they will wait until the technology is proven and becomes more mainstream before purchasing. Accurately estimating the energy demands posed by these new vehicles will have a significant impact to utility companies.

Conclusion

The current momentum surrounding green initiatives and reduced energy consumption has presented utilities and home improvement companies with a golden opportunity.

PHEV Purchase Consideration



Leveraging the public's interest in green energy and conservation will offer a venue for energy companies to advance their programs. However, educating the public on their options and which are best for them poses a major hurdle.

As we have seen with the results found in this report, consumers are willing to adopt a greener lifestyle, especially if it helps them save money. But the industry must work to move consumers from being relatively passive energy users to active participants, managing and monitoring their own consumption. This change in behavior will take time and will only be possible with effective marketing programs designed to educate the consumer on the benefits.

While saving the environment will motivate people to transition to more energy efficient products and services, cost savings will be the key message that will make them take notice. Marketing dollars, promotion and a heightened emphasis on customer service will be needed to guide the public and give them the answers they seek as we all move cautiously into a new era of energy.