U.S. Consumer Attitudes and Expectations about Energy

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Overview


II. Perceived affordability of energy
   How much of an increase in home energy and gasoline prices do people think they can afford?

III. Concern about affordability of energy and environment
   To what extent are people concerned about the environment and the affordability of energy?

IV. Questions, contact information, and links
Attitudes toward the Environment & Energy

- Voting behavior
- Beliefs about climate change
- Cost versus environmental protection
- Opinions regarding renewable sources
- Public perception and policy

Cartoons illustrating
- Promising to slow the rate we're destroying the planet
- Climate summit with various environmental goals
- Decision on a pipeline with contrasting impacts.
Attitudes toward the Environment & Energy

Psychosocial aspects of attitudes and behavior related to energy and the environment
Energy Survey: What (Our Scope)

Partnership with Institute for Social Research & Surveys of Consumers

18 item quarterly rider
Rigorously designed: developed through review of previous work, expert feedback, cognitive interviews and focus groups
Nationally representative sample of 500 U.S. households (per quarter)
Implemented in October 2013
  • Fielded in January, April, July and October each year

Energy Survey: What (Our Scope)

Assesses:

• General attitudes toward energy
• Hypothetical behavior regarding energy conservation
• Perceptions of aspects affected by energy (air, water, health)
• Personal energy-related costs (home energy, gasoline)
• Affective responses (e.g., worry about reliability, affordability, impact of energy on environment)
• Forecasting energy’s impact on the environment
• Sociodemographic factors (education, income, gender)
### Energy Survey: Who (Our Interdisciplinary Team)

<table>
<thead>
<tr>
<th>DeCicco</th>
<th>Lisa Neidert</th>
<th>Amy Moors</th>
<th>Collaborators:</th>
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</thead>
<tbody>
<tr>
<td>Principal Investigator and Survey Director, Research Professor, Energy Institute</td>
<td>Data Scientist, Research Scientist, Institute for Social Research</td>
<td>Postdoctoral Scholar, Energy Institute &amp; National Center for Institutional Diversity</td>
<td>Richard Curtin, Director of the University of Michigan Survey of Consumers, and his research staff</td>
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Relative Indices of Energy Affordability

How much of an increase in *home energy* and *gasoline* prices do people *think* they can afford?
# Relative Indices of Energy Affordability

## Baseline

**Home energy:**

Now think about the last time you (or someone else in your household) paid a household energy bill of any kind, how much did that bill cost you?

## Threshold of Affordability

**Home energy:**

At what dollar amount would that [type of energy stated] bill become unaffordable to you (and your family)?

**Relative affordability:** distance between current payment and dollar amount at which energy no longer is perceived as affordable

not abstract attitudes about affordability
Relative Indices of Energy Affordability

Baseline

Home energy:
Think about the last time you (or someone else in your household) paid household energy bill of any kind, how much did that bill cost you?

Gasoline:
EIA's national monthly average price (at time of survey)

Threshold of Affordability

Home energy:
At what dollar amount would that [type of energy stated] bill become unaffordable to you (and your family)?

Gasoline:
At what price per gallon would gasoline get so high that it becomes unaffordable to you (and your family)?

By unaffordable we mean that you (and your family) would be forced to make significant changes in the way you live your life.
Home Energy: Current Monthly Bill and Unaffordable Bill

- Current monthly home energy bill
- Dollar amount that consumers consider unaffordable

Average = $333
Average = $168

Oct '13 Jan '14 Apr '14 Jul '14 Oct '14 Jan '15 Apr '15

= 3373
Home Energy Affordability: Percent Increase

% increase in cost of current home energy bill

Average = 125% increase before home energy bill would become unaffordable

= 3373
Mean income: $165,988 (higher)

Home Energy Affordability:
Percent Increase by Income Tercile

Income: $165,988 (higher)
Home Energy Affordability: Percent Increase by Income Tercile

- Higher Income
- Middle Income

Income: $165,988 (higher); $61,203 (middle)
Home Energy Affordability: Percent Increase by Income Tercile

Income: $165,988 (higher); $61,203 (middle); $23,282 (lower)
Gasoline: Current Price and Unaffordable Price

Price that consumers consider unaffordable

U.S. average gasoline price

Average = $3.16

Average = $5.50

= 3495
% increase in cost of current gasoline price

Gasoline Affordability: Percent Increase

Average = 80% increase before gasoline costs would become unaffordable

Oct '13 Jan '14 Apr '14 Jul '14 Oct '14 Jan '15 Apr '15

Average = 3495
Gasoline Affordability: Percent Increase by Income Tercile

Higher Income

99%
Gasoline Affordability: Percent Increase by Income Tercile

- Higher Income
- Middle Income
- Lower Income

Oct '13, Jan '14, Apr '14, Jul '14, Oct '14, Jan '15, Apr '15

99%, 75%, 67%
Concern about the Environment & Affordability

To what extent are people concerned about the **affordability** of energy and the impact of energy on the **environment**?
Concern about Affordability and the Environment

• How much do you personally worry about the affordability of energy?

• How much do you personally worry about the environmental impact of energy?

4-point Likert scale:
not at all (1), only a little (2), a fair amount (3), great deal (4)
Concern about Affordability and the Environment

The graph shows the percent of respondents who responded with a "fair amount" or a "great deal" of concern about Affordability and the Environment from October 2013 to April 2015.
Take Home Points

Affordability:

- Those from lower income backgrounds believe they can afford up to a 104% increase in home energy and 67% increase in gasoline prices.

Future research: stability of index, predictive value of index (e.g., pro-environmental behavior)
Take Home Points

People are just as concerned (and more concern this past year) about the environment as affordability of energy.

Environmental concern is more intense.

Environmental concern is similar across income brackets.

60% express concern about the environment.

54% express concern about the affordability of energy.
Thank you! & Questions?

University of Michigan’s Energy Survey:
http://energy.umich.edu/project/energy-survey

New releases and brief reports:
http://energy.umich.edu/news-events

Recent publication:

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