Based in Salt Lake City

Board of Directors in D.C.

42 year track record

Directors from NEI, EEI, AGA, other industry organizations

Energy Literacy
Programs

- In-class presentations
- Professional development workshops
- Student competitions
- Materials distribution
- Websites, electronic posters
“Thank YOU so much for the AMAZING afternoon! Our school LOVED the Think! Energy presentation, and the kids were jumping up and down with excitement … It was nothing short of a home run! We LOVED both presenters, and they were absolutely outstanding. Please let them know what an amazing experience we had from their enthusiasm and excitement for science. They were awesome!”
Knowledge
Measure students’ understanding of a broad array of energy concepts

Attitudes
Identify common attitudes and perceptions toward energy

Behaviors
Understand common actions and behaviors taken as it relates to energy
Survey Objectives

- Take a national snapshot – high school seniors
- Create comprehensive, balanced approach
- Verify need, identify gaps
- Raise profile of energy literacy
Target Participants

2,005 participants - National

Why high school seniors?

- K-12 experience
- New voters
- Energy customers
- Higher education/workforce
Knowledge
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Energy Literacy Score Distribution

- Average Score: 48.8
- Maximum Score: 90.5
- Minimum Score: 3.3

Score Range:
- 0-9: 0.1%
- 10-19: 1%
- 20-29: 8%
- 30-39: 17%
- 40-49: 23%
- 50-59: 20%
- 60-69: 12%
- 70-79: 7%
- 80-89: 2%
- 90-100: 0.1%
Geography
Ethnicity
Household Income

- Less than $15,000
- $15,000 to $24,999
- $25,000 to $49,999
- $50,000 to $74,999
- $75,000 to $99,999
- $100,000 to $149,999
- More than $150,000
Political Affiliation
Question:
Most power plants being built in the U.S. today are designed to use which fuel?
Question:
In the past five years, both production and consumption of which resource has decreased in the U.S.?
Question:
The term renewable energy means that a resource:
Question:
Which of the following is a renewable energy resource?

- Solar: 25%
- Biomass: 3%
- Geothermal: 3%
- Hydropower: 7%
- All of the above (correct): 62%
Question:
Which three resources provided 86% of the electricity generated in the U.S. in 2015?

Coal, Natural Gas, Nuclear (correct)
Natural Gas, Solar
Natural Wind, Solar
Coal, Natural Gas, Wind
Coal, Nuclear, Hydropower
Question:
Which of the following uses the most energy in the average American home annually?
Question:
What percentage of the U.S. overall energy consumption is used for transportation?
Question:
Per capita energy usage in the United States since 2003 has:

- Decreased (correct): 11%
- Stayed about the same: 14%
- Increased: 76%
Question:
In the past ten years, petroleum imports into the U.S. have:

- Decreased (correct): 44%
- Increased: 56%
Question:
Which of the following does NOT promote energy savings?
Question:
Which of the following are possible economic impacts of increased energy production?

- Job creation: 14%
- Increased tax revenues: 9%
- Royalty payments for property owner: 6%
- All of the above (correct): 61%
- None of the above: 9%
Question:
Nuclear reactors do not produce air pollution or carbon dioxide while operating.
Question:
The technique of hydraulic fracturing to produce natural gas and oil, commonly know as “fracking,” has helped to lower consumer energy prices.
Question:
Electric vehicles use electricity generated only from renewable energy sources.
Question:
Prior to a digging project, underground utility lines should be identified. What number should you call to ensure this is done correctly?

- The local utility company: 52%
- 811 (correct): 21%
- 911: 5%
- The local fire station: 5%
- The local city or county offices: 17%
Attitudes

Identify common attitudes and perceptions toward energy
Climate change is a vital issue that must be addressed.
Environment Focus

Energy Vocal

Responsibility Driven

National Importance

Comfort and Cost Minded

I believe I have a voice in helping to impact energy policies.
Environment Focus
Energy Vocal
Responsibility Driven
National Importance
Comfort and Cost Minded

I have a moral obligation to reduce my energy usage
Energy efficiency is vital to our national economy.

Environment Focus
Energy Vocal
Responsibility Driven

National Importance
Comfort and Cost Minded
Environment Focus
Energy Vocal
Responsibility Driven
National Importance

Comfort and Cost Minded

It’s too much of an inconvenience to my lifestyle to reduce my energy usage.
Student responses to the attitudinal questions revealed four distinct personas.

**Smart Coaster**

Realize they can do something about energy, but don't act.

28 %
Student responses to the attitudinal questions revealed four distinct personas.

Agent of Change

Strongly believe they can do something to conserve energy, and most likely to do so.

27 %
Student responses to the attitudinal questions revealed four distinct personas.

**Diamond in the Rough**
Engaged and practical on energy issues, they have a voice but are not well informed.

28 %
Student responses to the attitudinal questions revealed four distinct personas.

**Indifferent Onlooker**
Not well informed or engaged.

18%
Implications and Action

Realize they can do something about energy, but don’t act.

- High knowledge and low engagement suggests the need for:
  - Narrative content that engages empathy or imagination.
  - Elements that build small commitments to energy-related action (organized service projects, short term contests).
  - Opportunities for peer instruction/coaching.
Implications and Action

Agent of Change

Strongly believe they can do something to conserve energy, and most likely to do so.

• Build on this group’s relatively strong knowledge basis.
• Specifically, this group may respond well to:
  • More nuanced policy discussion.
  • Opportunities for advocacy or social action (organized service projects, optional activities).
  • Opportunities for peer instruction/coaching.
Implications and Action

*Diamond in the Rough*

Engaged and practical on energy issues, they have a voice, but are not well informed.

- The central challenge for this group is turning engagement into *informed* engagement.
- This group may benefit from:
  - Seemingly basic instruction that highlights the practicality of energy knowledge.
  - Imagery that reflects ethnic/social diversity.
  - Activity-based learning.
  - Opportunities to build a sense of self-efficacy through highlighting their relatively high performance on energy efficient behaviors.
Implications and Action

Indifferent Onlooker

Not well informed or engaged.

• The indifferent onlooker presents the greatest challenge for content-related programs. This group is lacking in both energy-related knowledge and motivation.
• This group may benefit from:
  • Basic instruction that highlights the practicality of energy knowledge AND has high potential to engage.
  • Imagery that reflects ethnic/social diversity.
  • Elements that build small commitments to energy-related action (organized service projects, short term contests).
## Expected Direction of Energy Trends Ten Years From Now

<table>
<thead>
<tr>
<th>Category</th>
<th>Increase</th>
<th>Flat</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology advancements in energy efficiency and conservation</td>
<td>79%</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>Consumption of renewable energy sources (e.g., wind, solar, etc.)</td>
<td>78%</td>
<td>16%</td>
<td>6%</td>
</tr>
<tr>
<td>Energy demand</td>
<td>76%</td>
<td>17%</td>
<td>7%</td>
</tr>
<tr>
<td>Energy self-sufficiency (e.g. rooftop solar panels, geothermal)</td>
<td>76%</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>Consumer energy awareness</td>
<td>63%</td>
<td>28%</td>
<td>7%</td>
</tr>
<tr>
<td>Energy consumption costs</td>
<td>61%</td>
<td>20%</td>
<td>19%</td>
</tr>
<tr>
<td>At-home electricity storage</td>
<td>58%</td>
<td>32%</td>
<td>10%</td>
</tr>
<tr>
<td>Government actions to address climate change</td>
<td>48%</td>
<td>34%</td>
<td>18%</td>
</tr>
<tr>
<td>Production of nuclear energy</td>
<td>44%</td>
<td>32%</td>
<td>24%</td>
</tr>
<tr>
<td>Use of gas as an energy source</td>
<td>34%</td>
<td>31%</td>
<td>35%</td>
</tr>
<tr>
<td>Use of oil as an energy source</td>
<td>26%</td>
<td>30%</td>
<td>44%</td>
</tr>
<tr>
<td>Use of coal as an energy source</td>
<td>21%</td>
<td>21%</td>
<td>59%</td>
</tr>
</tbody>
</table>
Behaviors
Understand common actions and behaviors taken as it relates to energy
Students Who Often or Always…

- 81% Turn off all lights before leaving a room
- 37% Unplug electronic devices that are not being used
- 34% Consciously participate in carpooling
- 32% Encourage friends or family to be more energy efficient
- 30% Consciously choose to travel without a car (e.g., walk, bike, public transport, etc.)
- 28% Actively search for products that are more energy efficient
Energy Topics Most Likely to Research Over the Next 6 Months

- Energy efficiency: 42%
- Environmental impacts or energy actions: 33%
- Energy resources: 28%
- Energy safety: 19%
- Economic impacts of energy actions: 19%
- Energy trends: 14%
- Role of foreign affairs in energy decisions: 9%
- I'm unlikely to gather any information on energy: 18%
Sources of Information Students Are Likely to Turn to First About Energy

- Search engines: 66%
- Family: 36%
- Government websites: 33%
- Online or print encyclopedias: 30%
- Industry websites: 30%
- Social media; professional profiles: 27%
- Friends or classmates: 23%
- Social media; non-professional profiles: 21%
- Scholarly research database: 19%
- Blogs or forums: 17%
- Textbooks: 17%
- High school instructor: 16%
- Nonprofit agencies: 11%
Level of Trust in Sources as It Pertains to Energy

- **Search engines**: 66%
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- **Government websites**: 33%
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- **Nonprofit agencies**: 11%

- High Trust (over 60%)
- Average Trust (40-60%)
- Low Trust (Below 40%)
What’s Next?
Fill the Gaps

Engage Students

Motivate Behavior Change
Call to Action

The energy story

School to Home

Investment in community

Affect real change