

About

NEF



**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**

About **NEF** Programs

In-class presentations

Professional development
workshops

Student competitions

Materials distribution

Websites, electronic posters

Teacher Email:



“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

Measure students' understanding of a broad array of energy concepts



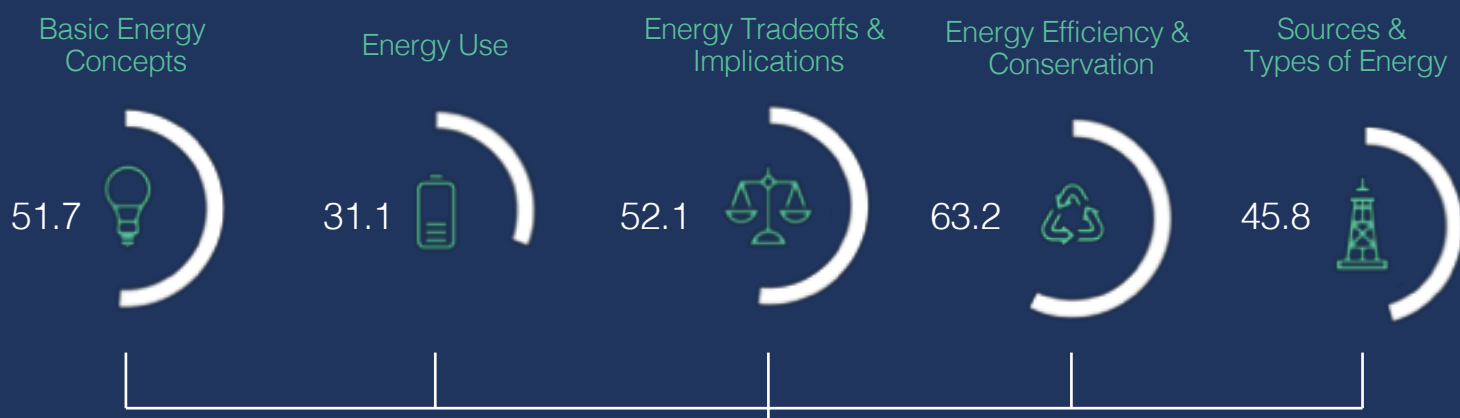
Attitudes

Identify common attitudes and perceptions toward energy

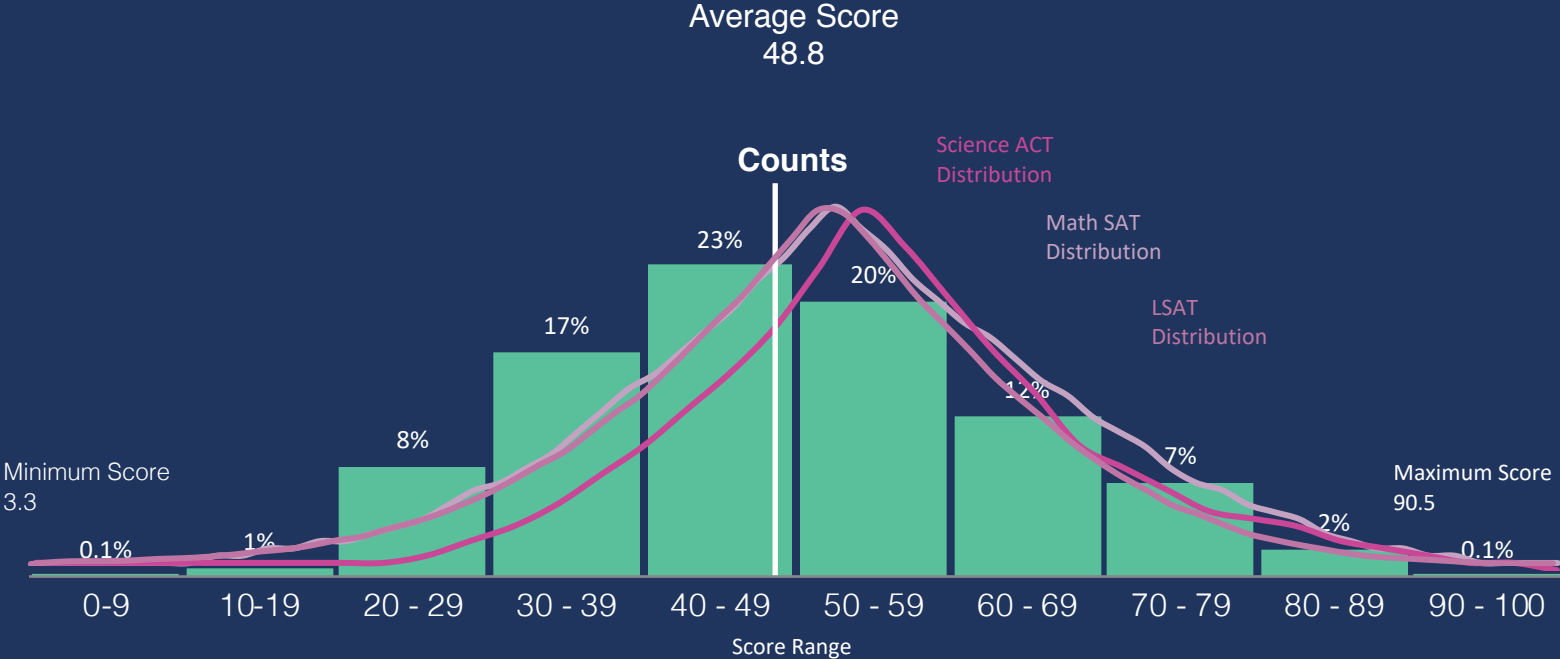


Behaviors

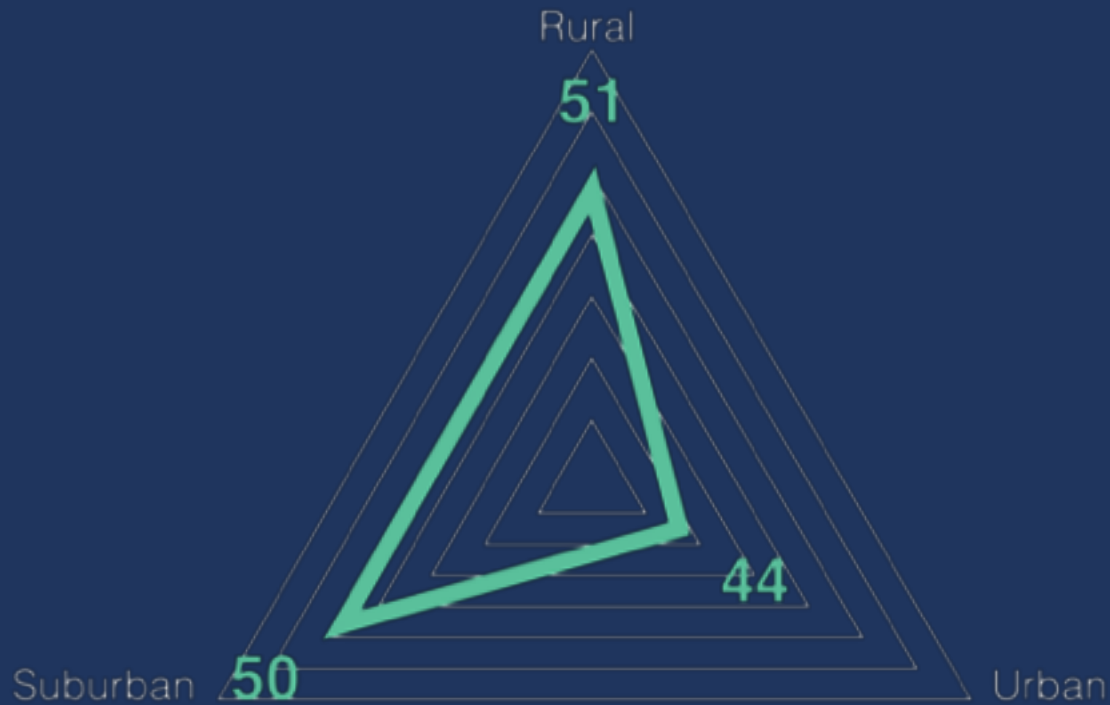
Understand common actions and behaviors taken as it relates to energy



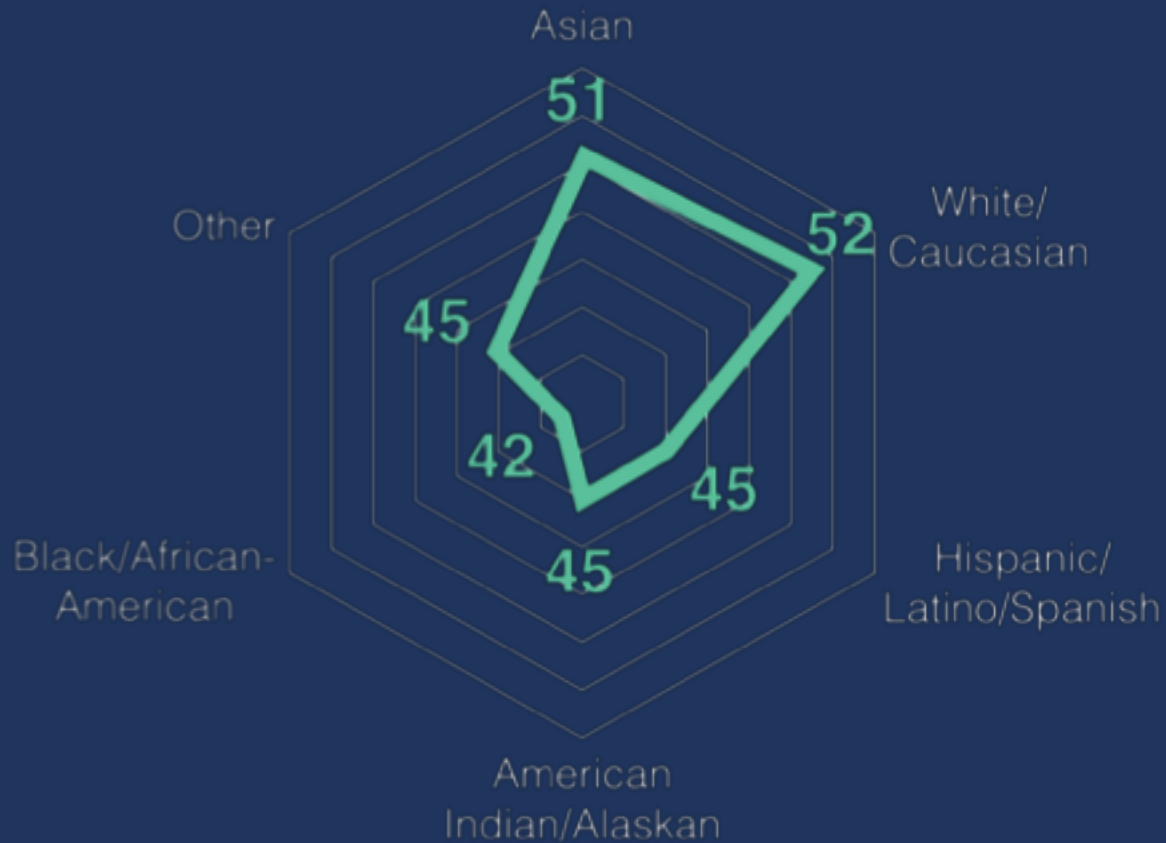
Energy Literacy Score Distribution



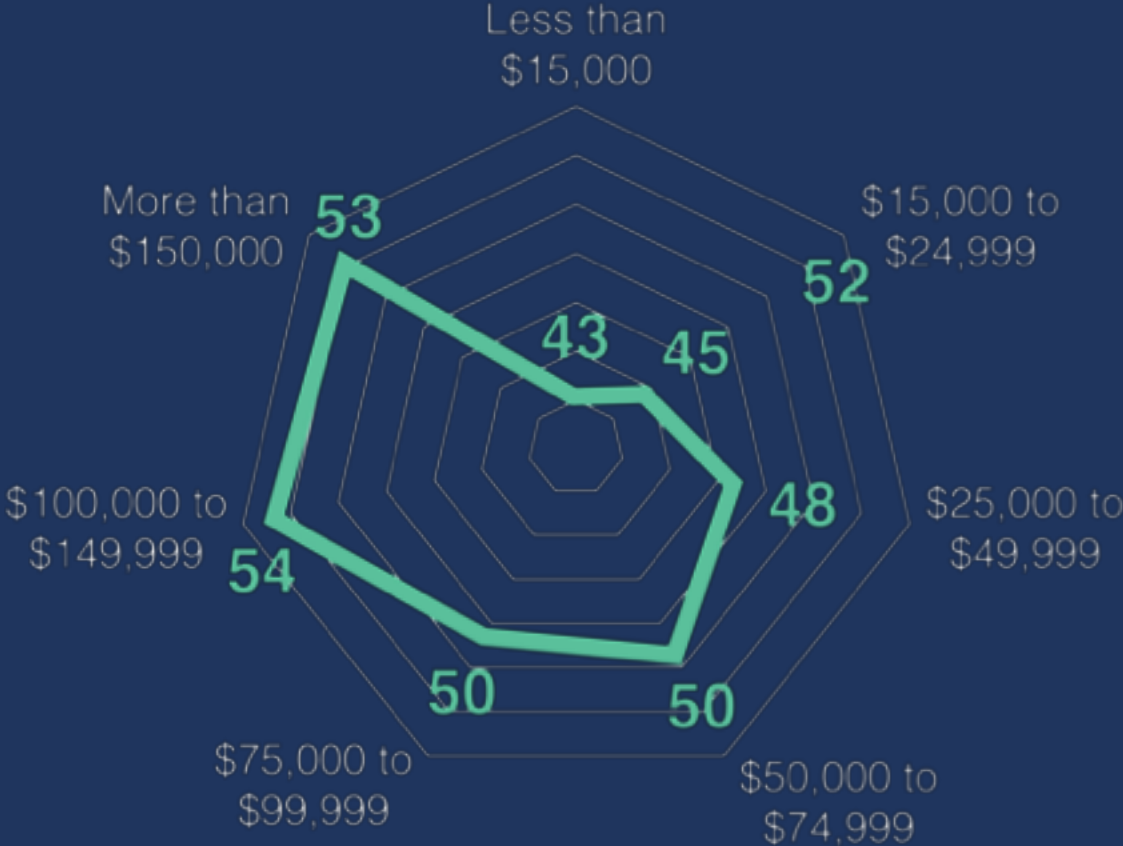
Geography



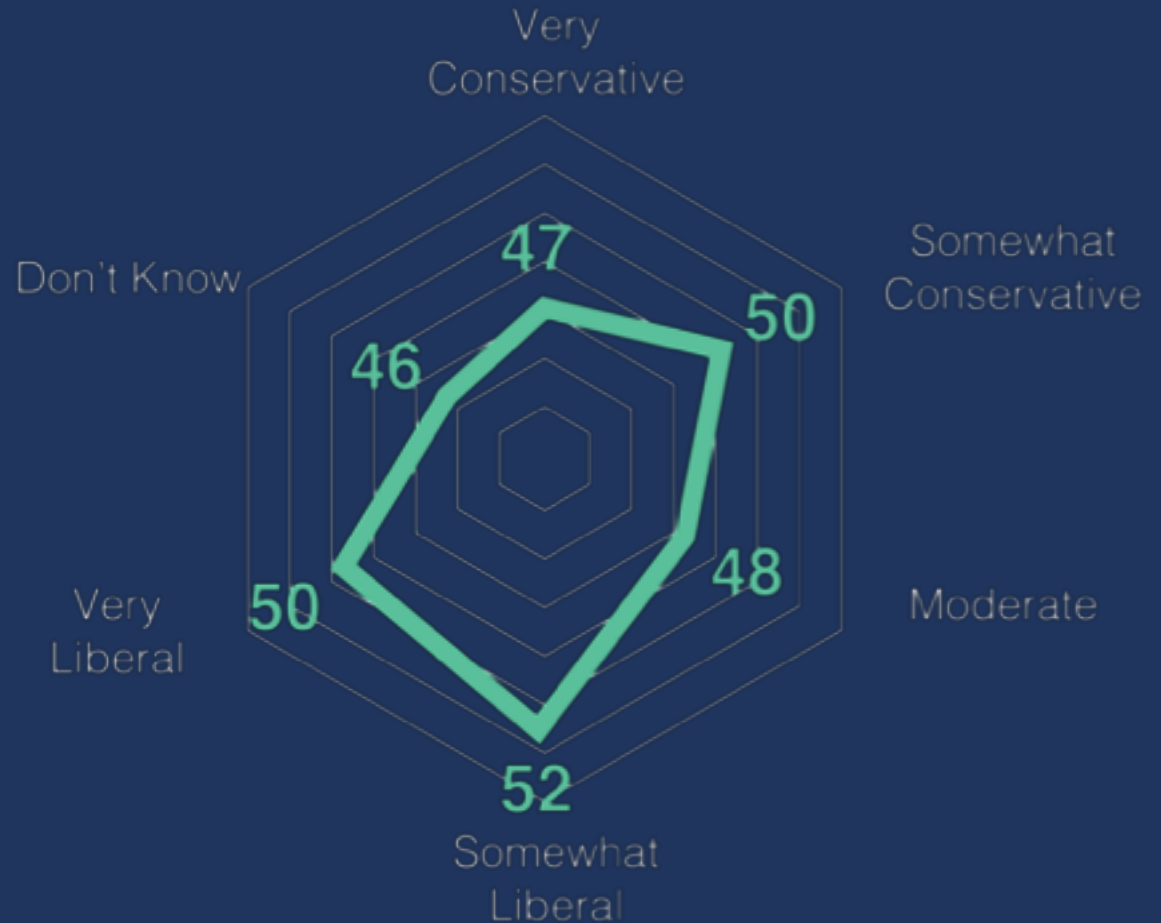
Ethnicity



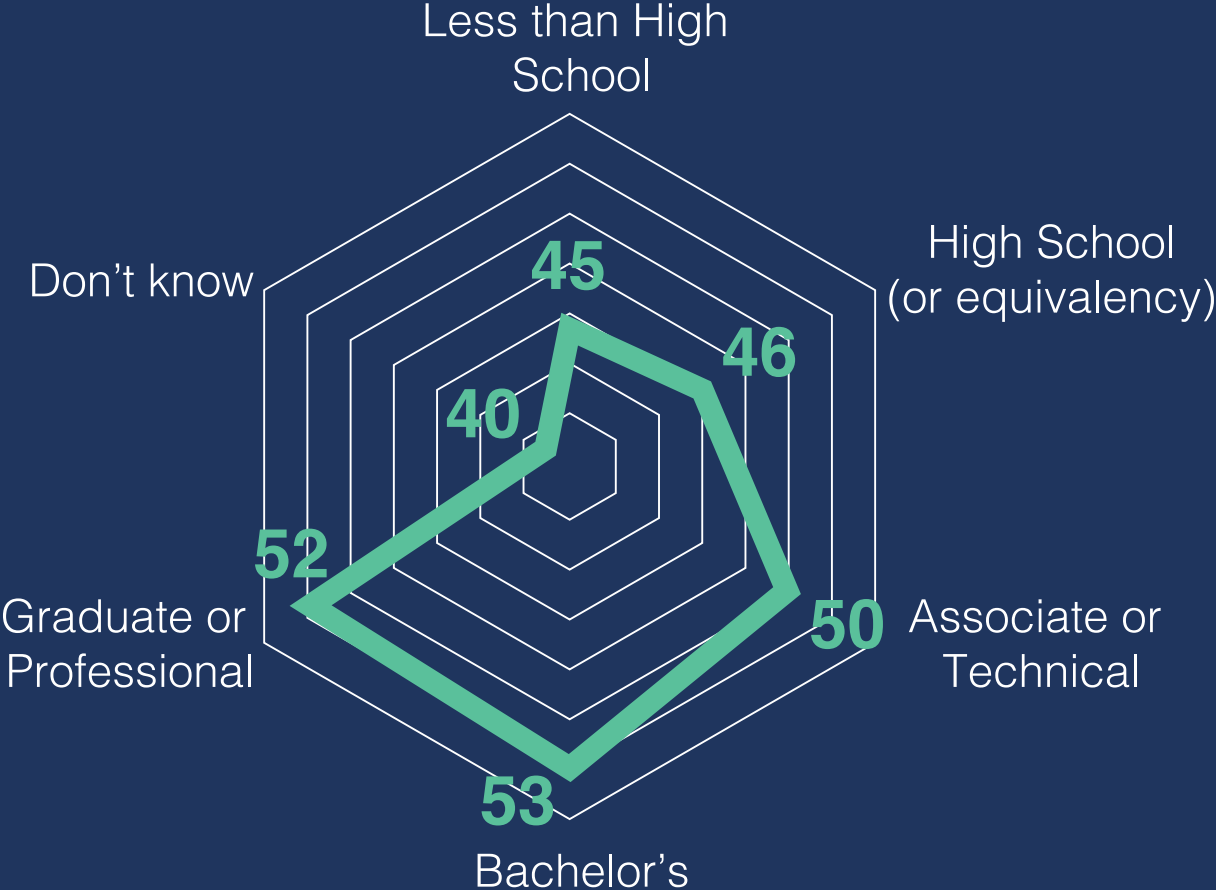
Household Income



Political Affiliation

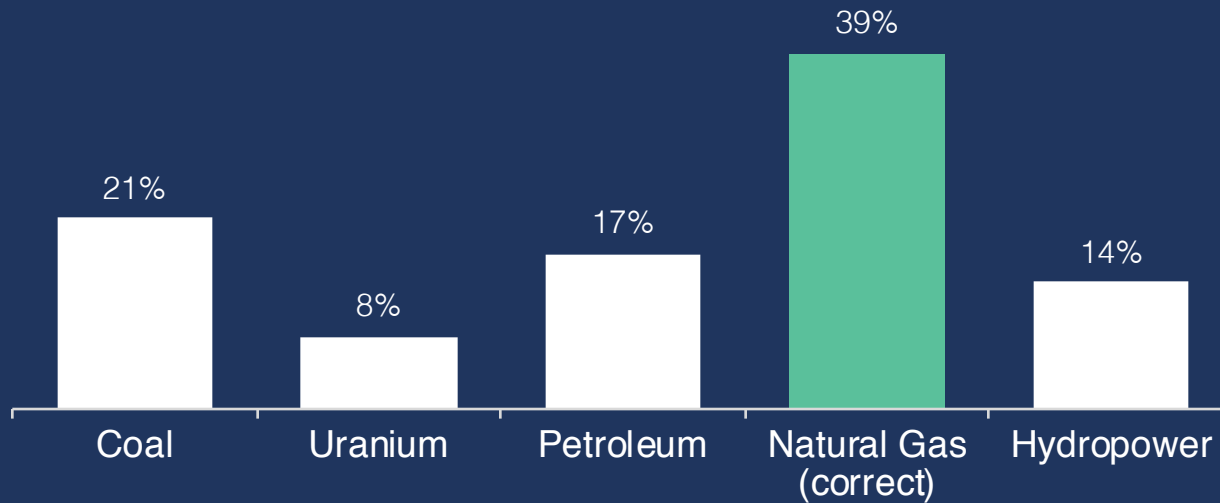


Parents Education



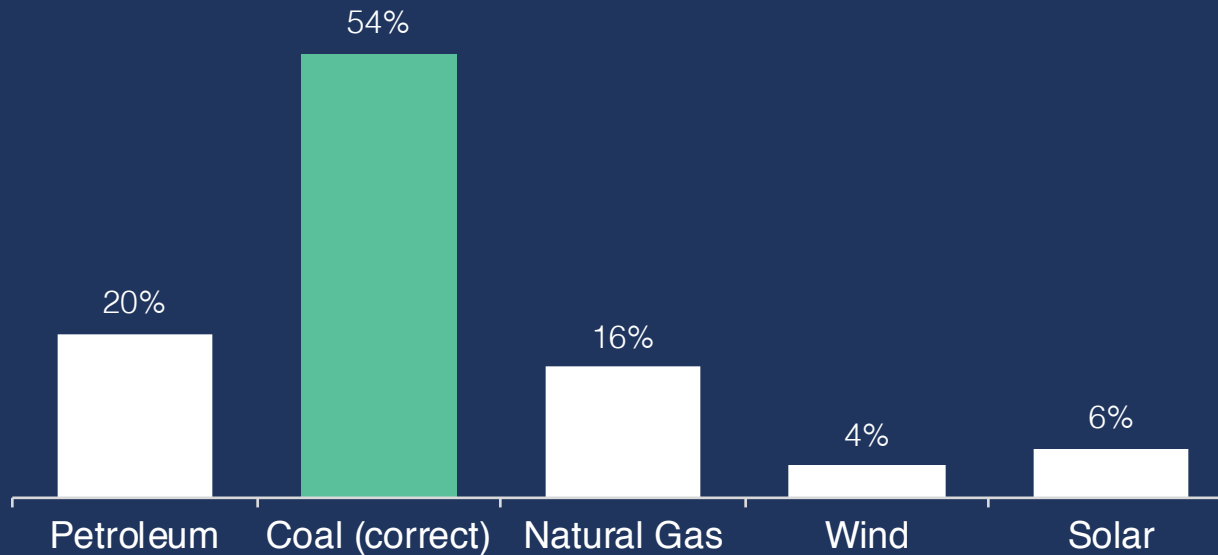
Question:

Most power plants being built in the U.S. today are designed to use which fuel?



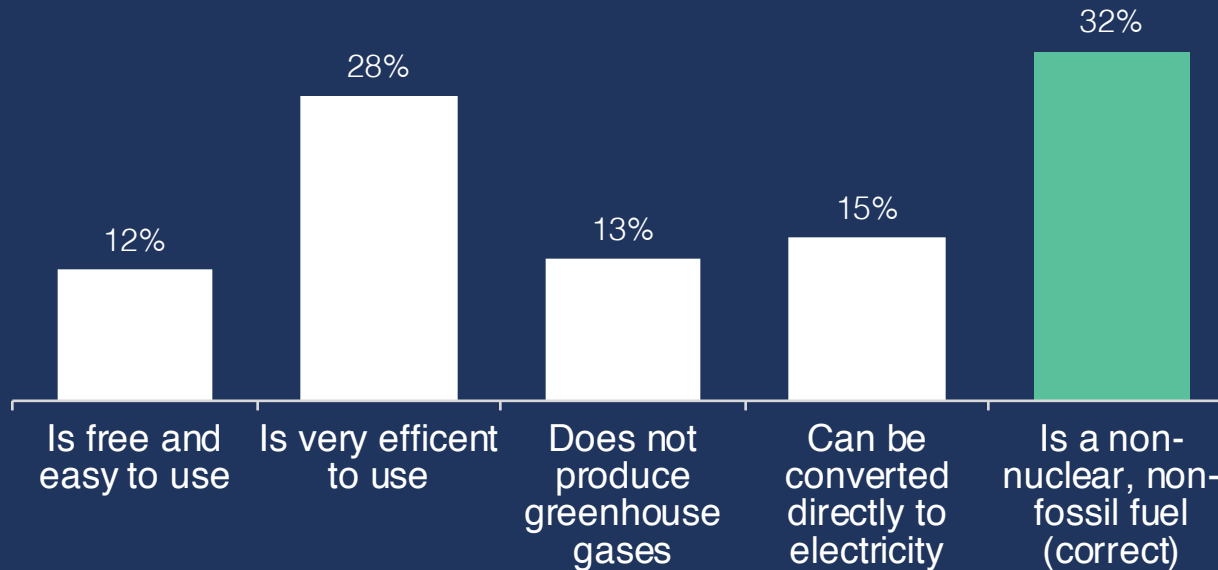
Question:

In the past five years, both production and consumption of which resource has decreased in the U.S.?



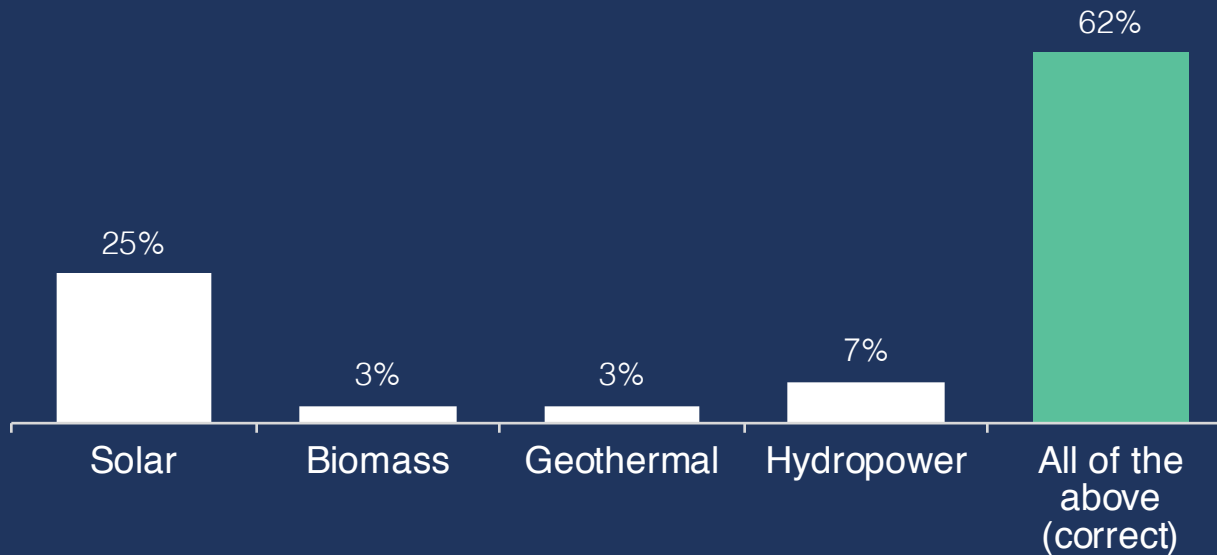
Question:

The term renewable energy means that a resource:



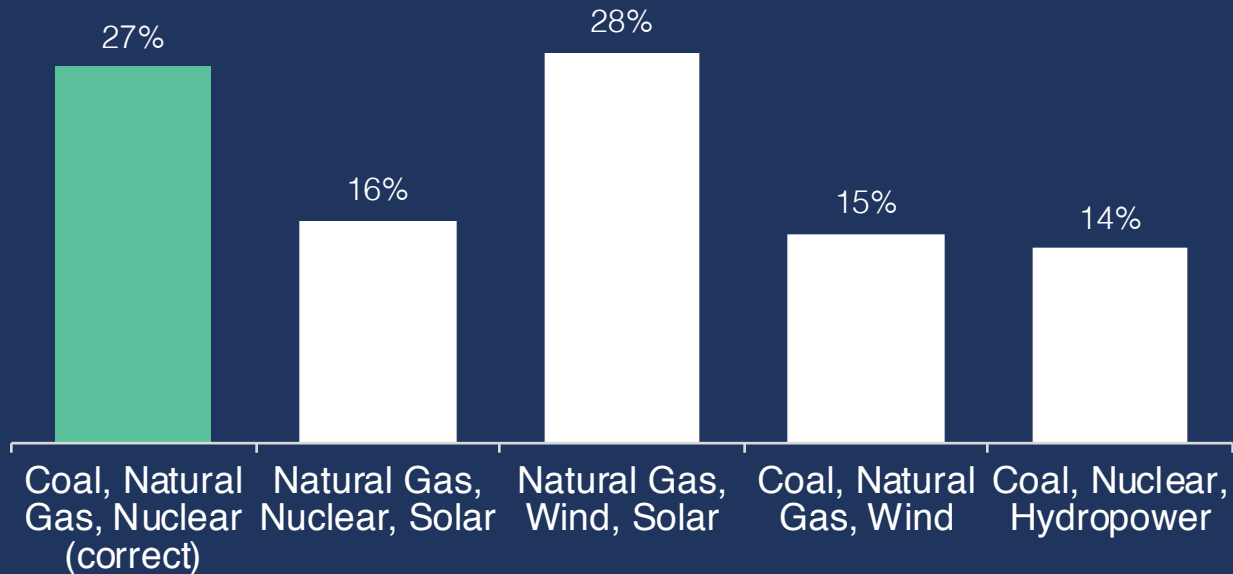
Question:

Which of the following is a renewable energy resource?



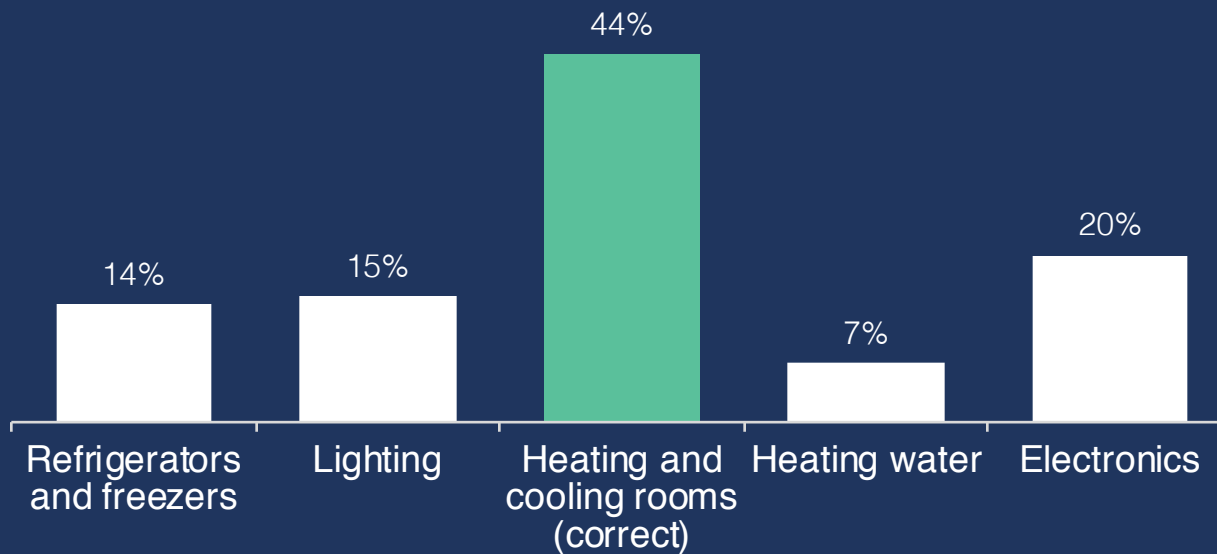
Question:

Which three resources provided 86% of the electricity generated in the U.S. in 2015?



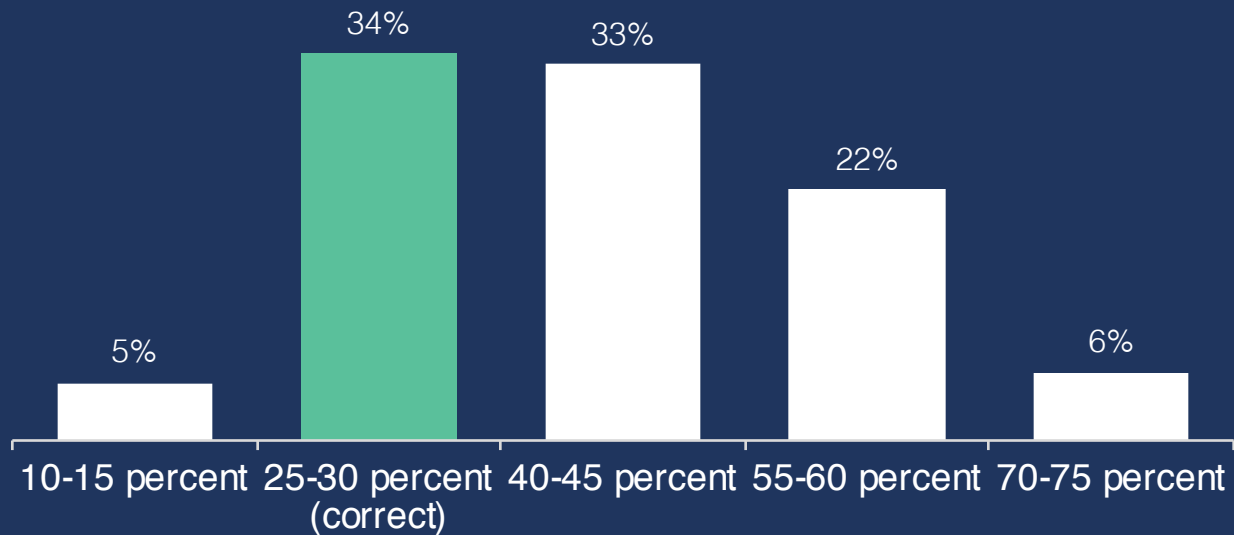
Question:

Which of the following uses the most energy in the average American home annually?



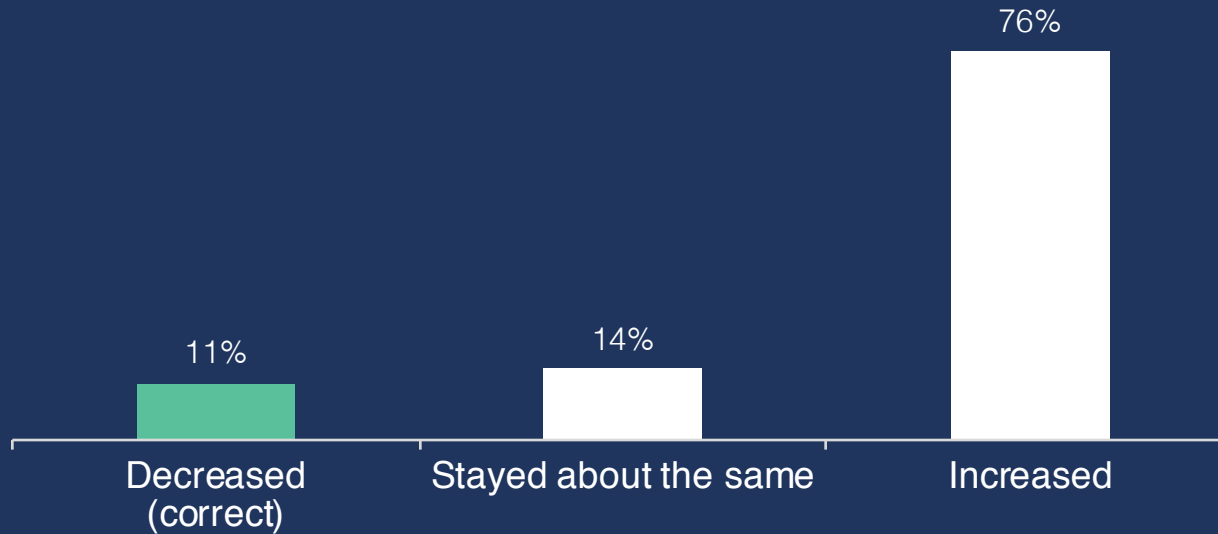
Question:

What percentage of the U.S. overall energy consumption is used for transportation?



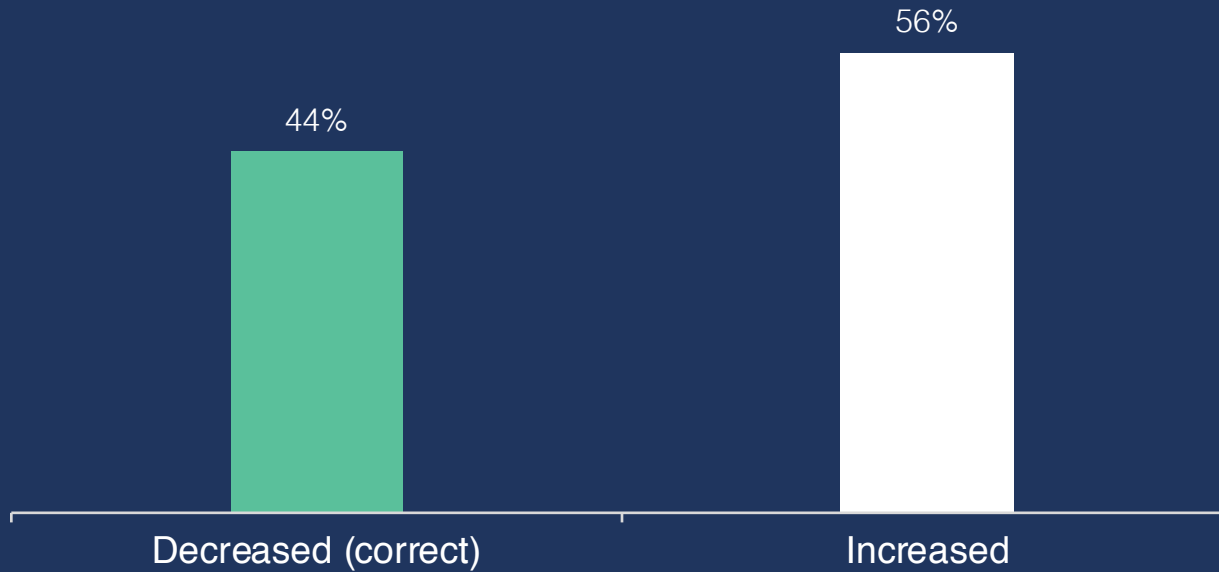
Question:

Per capita energy usage in the United States since 2003 has:



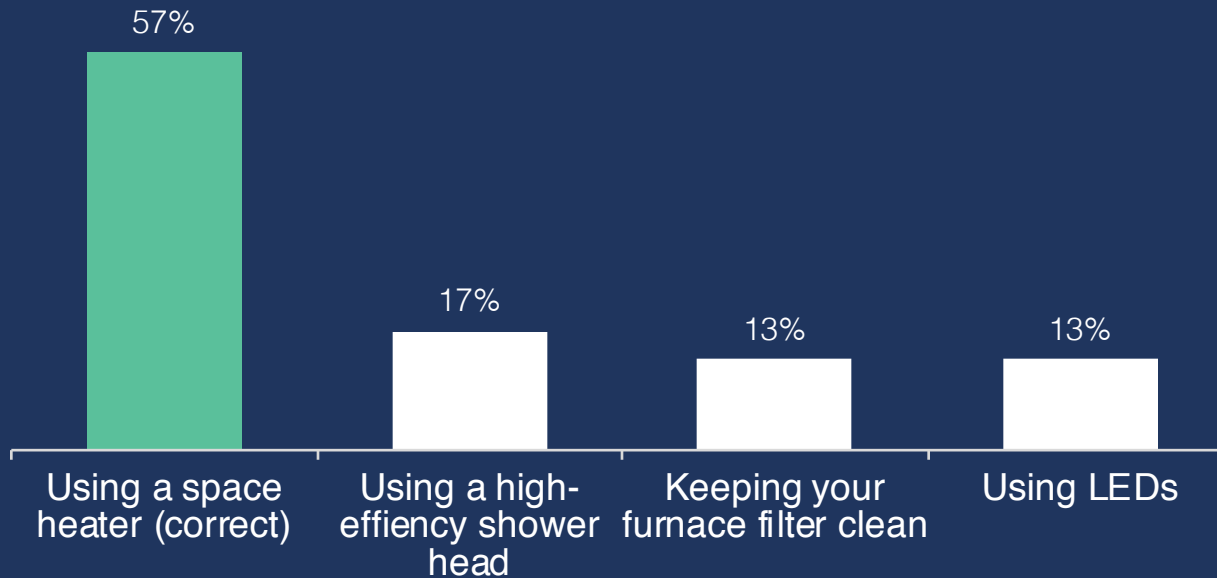
Question:

In the past ten years, petroleum imports into the U.S. have:



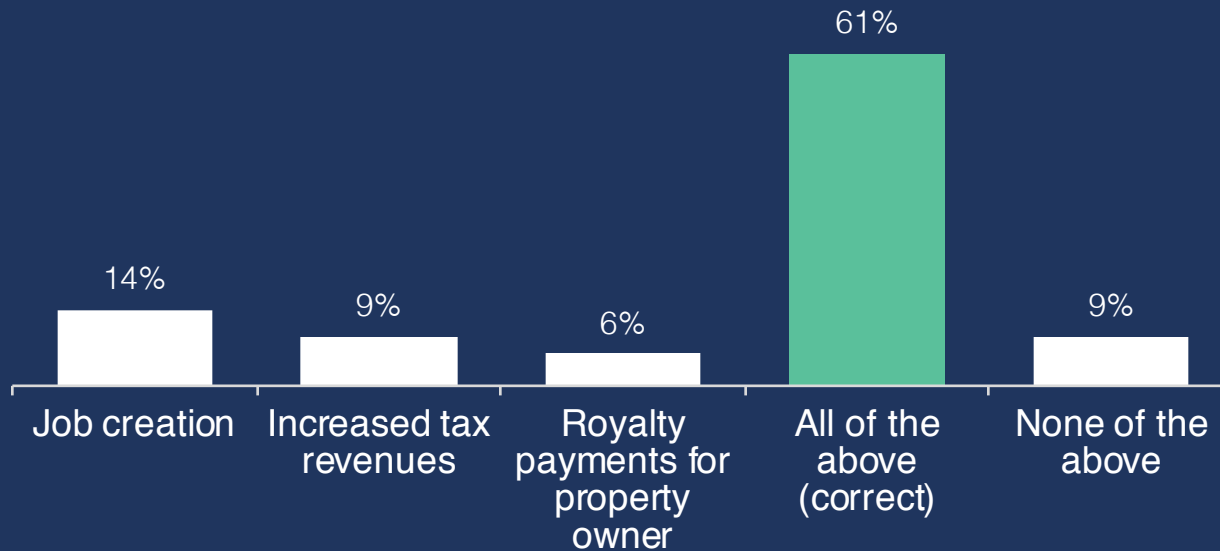
Question:

Which of the following does NOT promote energy savings?



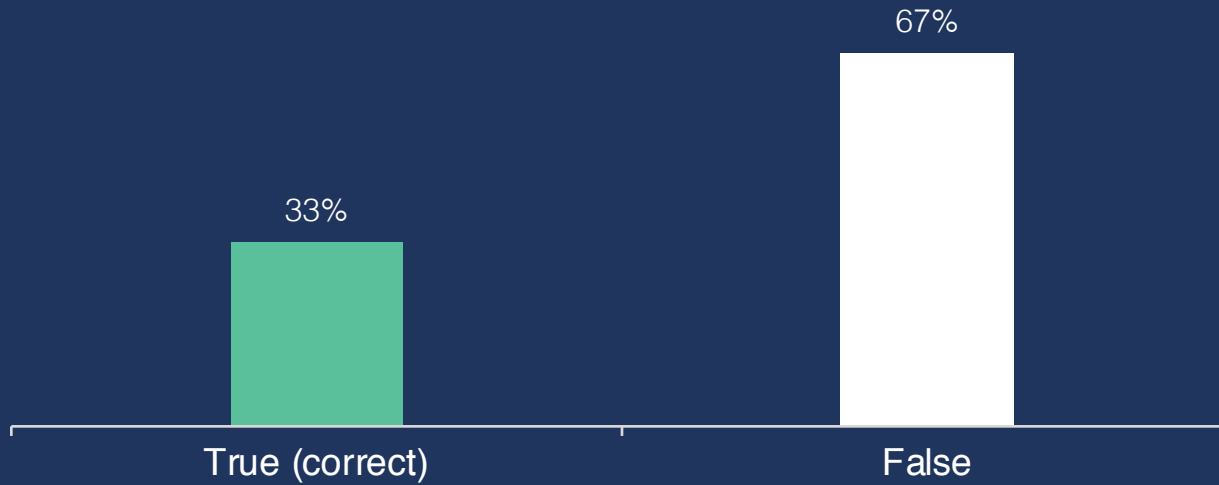
Question:

Which of the following are possible economic impacts of increased energy production?



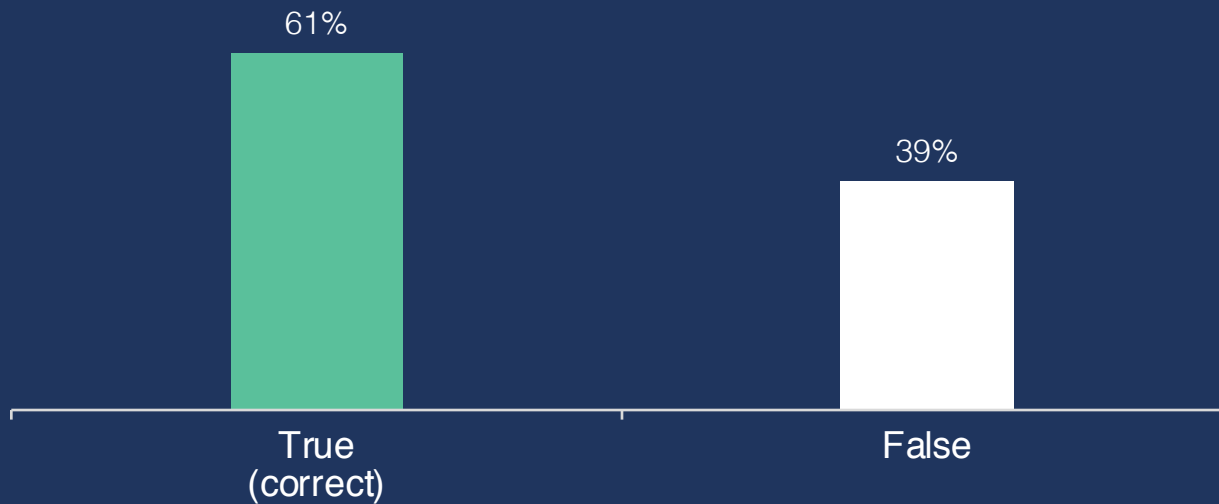
Question:

Nuclear reactors do not produce air pollution or carbon dioxide while operating.



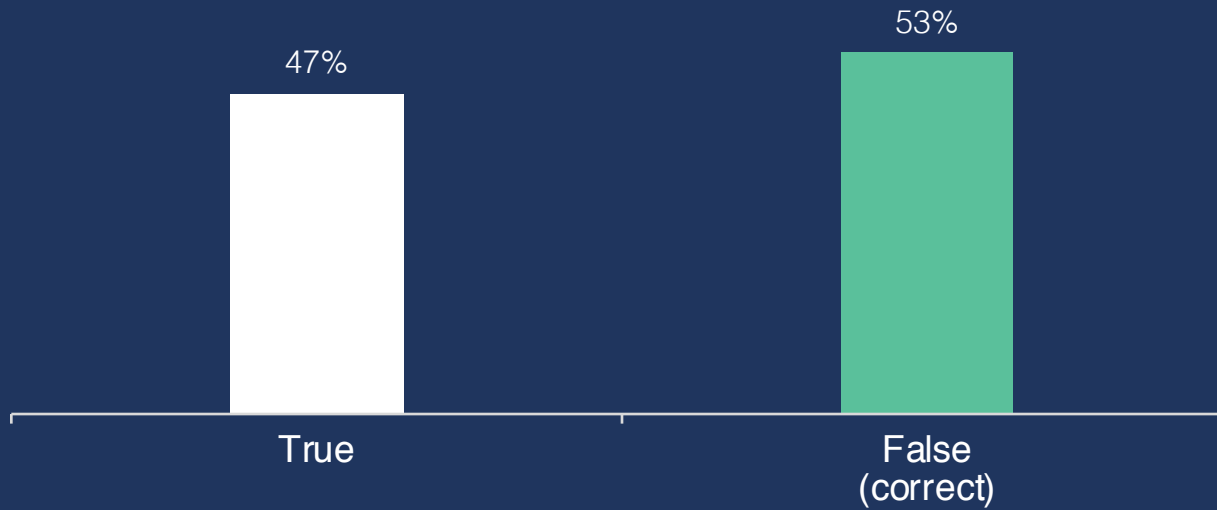
Question:

The technique of hydraulic fracturing to produce natural gas and oil, commonly known as “fracking,” has helped to lower consumer energy prices.



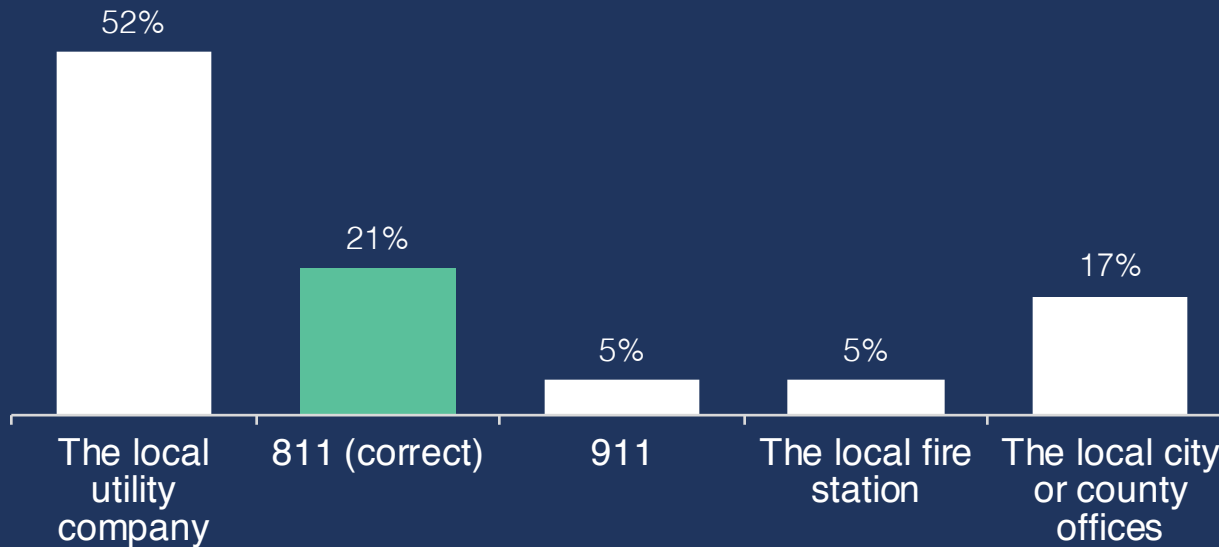
Question:

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?





Knowledge

Measure students' understanding of a broad array of energy concepts



Attitudes

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Environment Focus



Energy Vocal

Responsibility Driven

National Importance

Comfort and Cost
Minded

**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**

Environment Focus

Energy Vocal

Responsibility Driven

National Importance ▶

Comfort and Cost
Minded

**Energy
efficiency
is vital to
our
national
economy**

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**

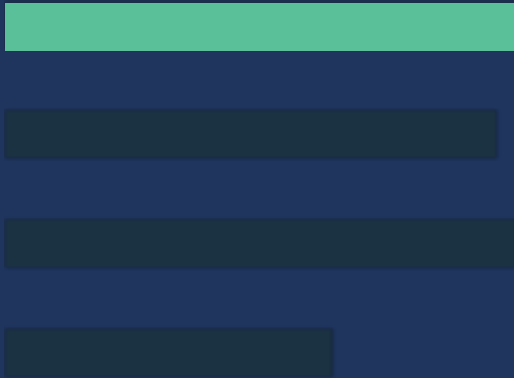
Student responses to the attitudinal questions revealed four distinct personas.



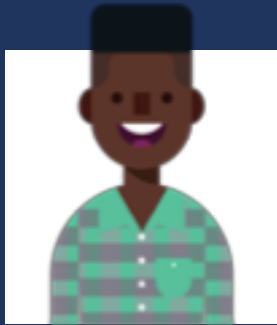
Smart Coaster

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

28 %



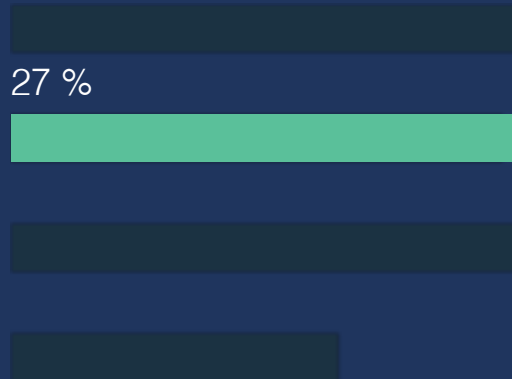
Student responses to the attitudinal questions revealed four distinct personas.



Agent of Change

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

27 %

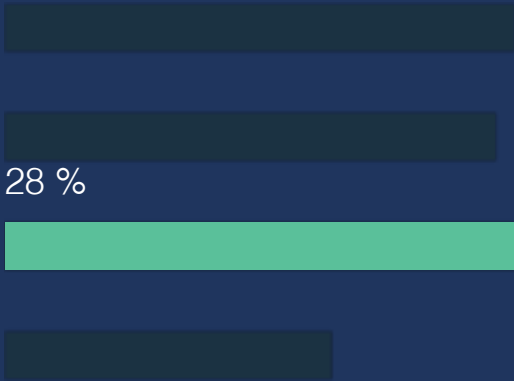


Student responses to the attitudinal questions revealed four distinct personas.



Diamond in the Rough

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

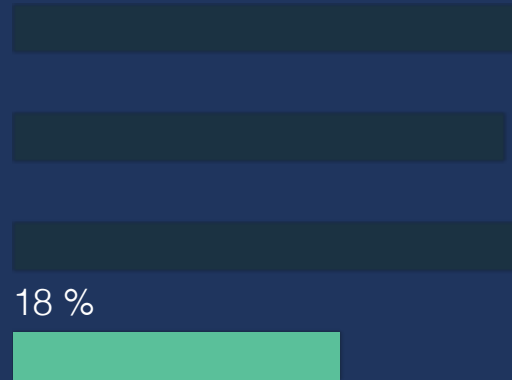


Student responses to the attitudinal questions revealed four distinct personas.



Indifferent Onlooker

Not well informed or engaged.



Implications and Action



Smart Coaster

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

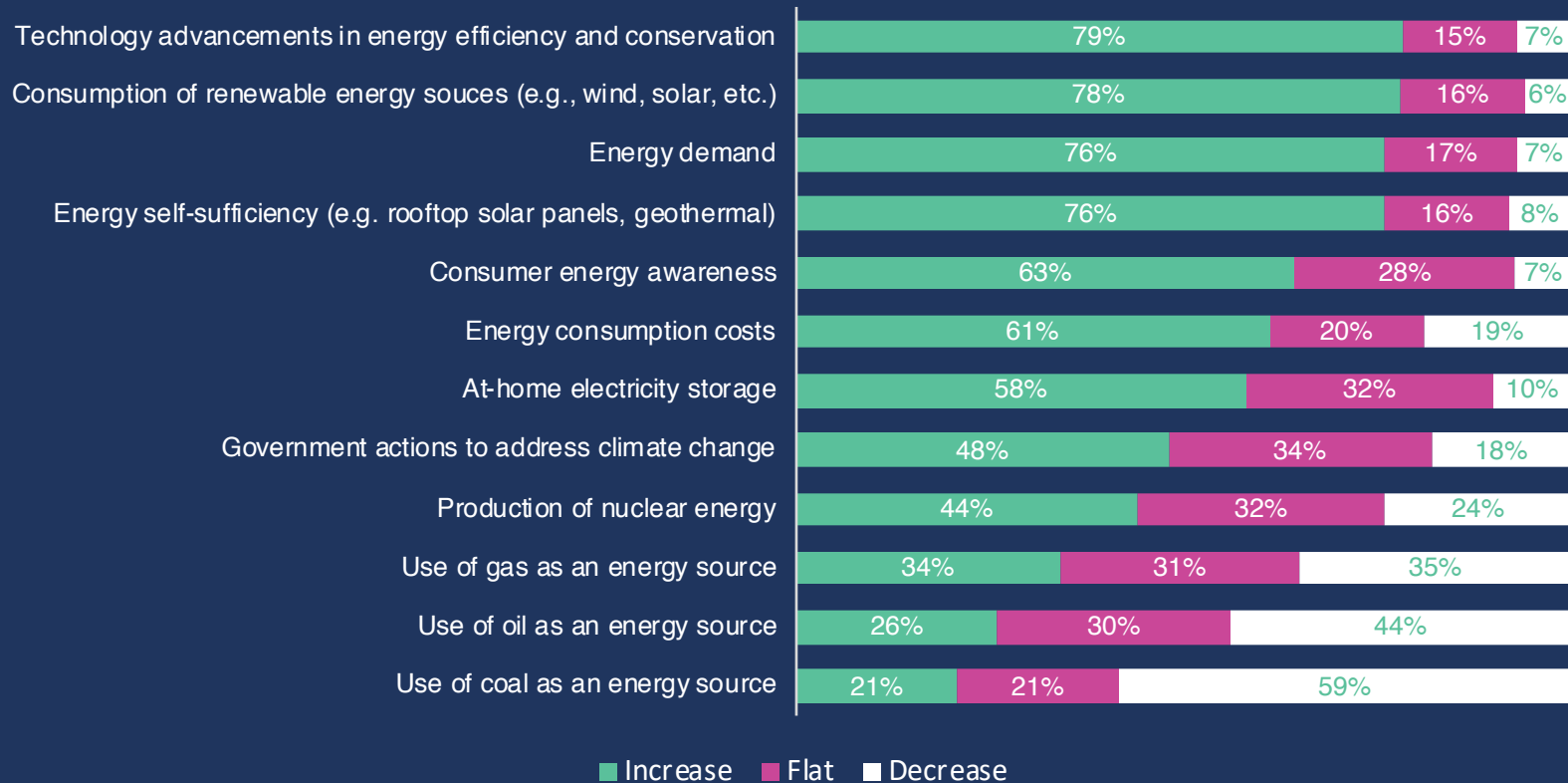


Indifferent Onlooker

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





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Students Who Often or Always...



81%

Turn off all
lights before
leaving a
room



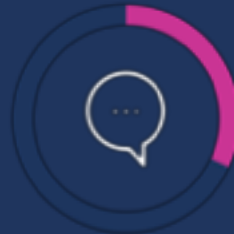
37%

Unplug
electronic
devices that
are not being
used



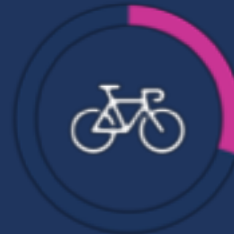
34%

Consciously
participate in
carpooling



32%

Encourage
friends or
family to be
more energy
efficient



30%

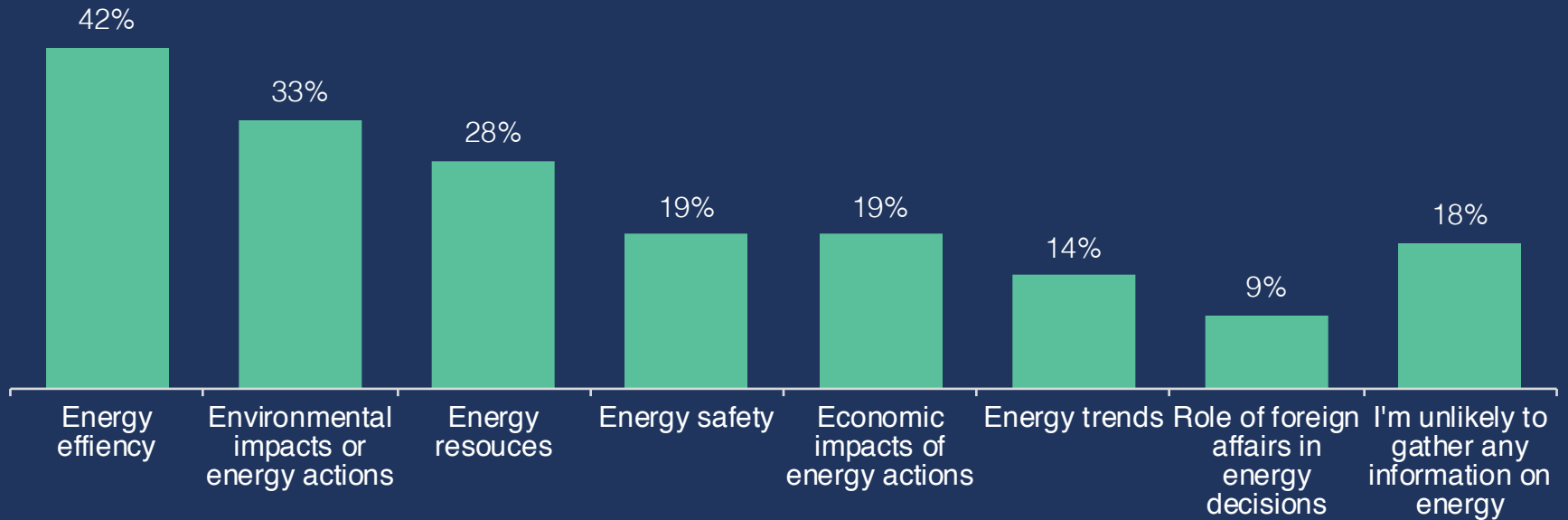
Consciously
choose to
travel without
a car (e.g.,
walk, bike,
public
transport, etc.)



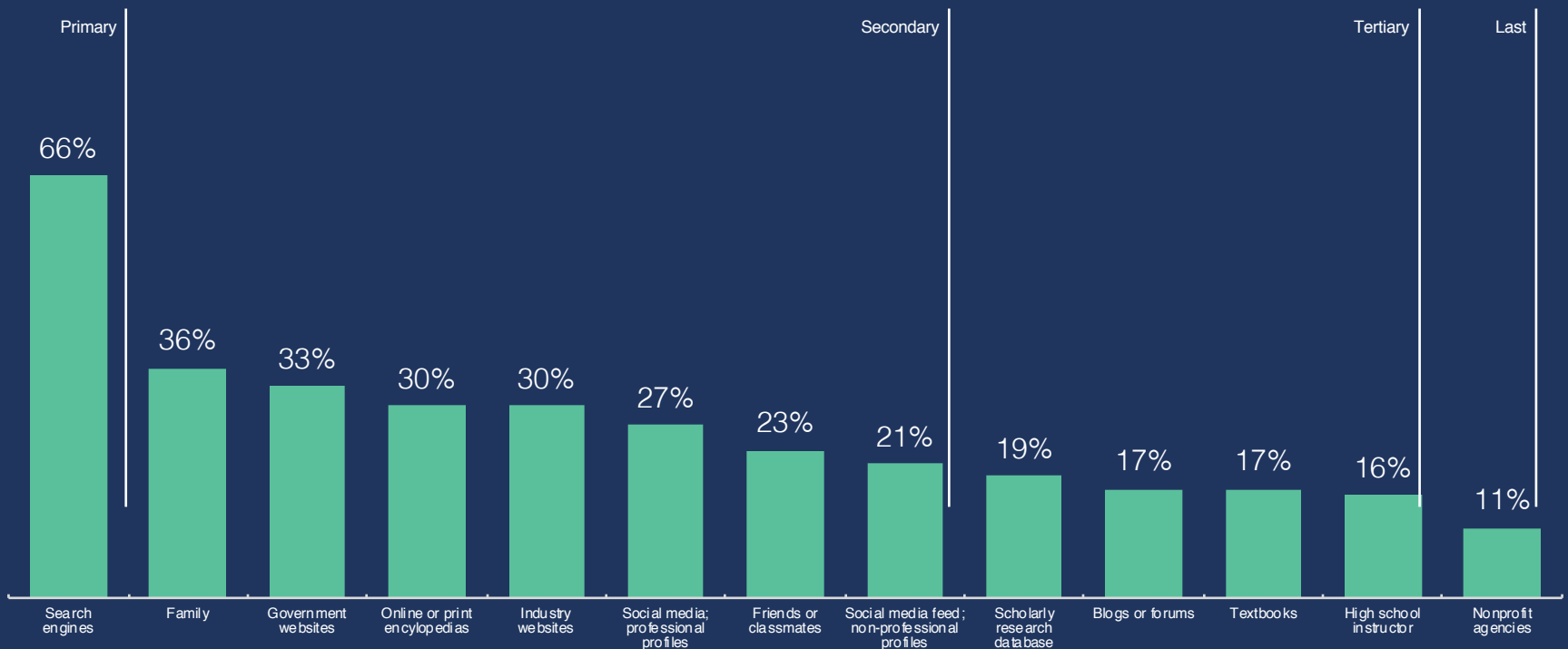
28%

Actively
search for
products that
are more
energy
efficient

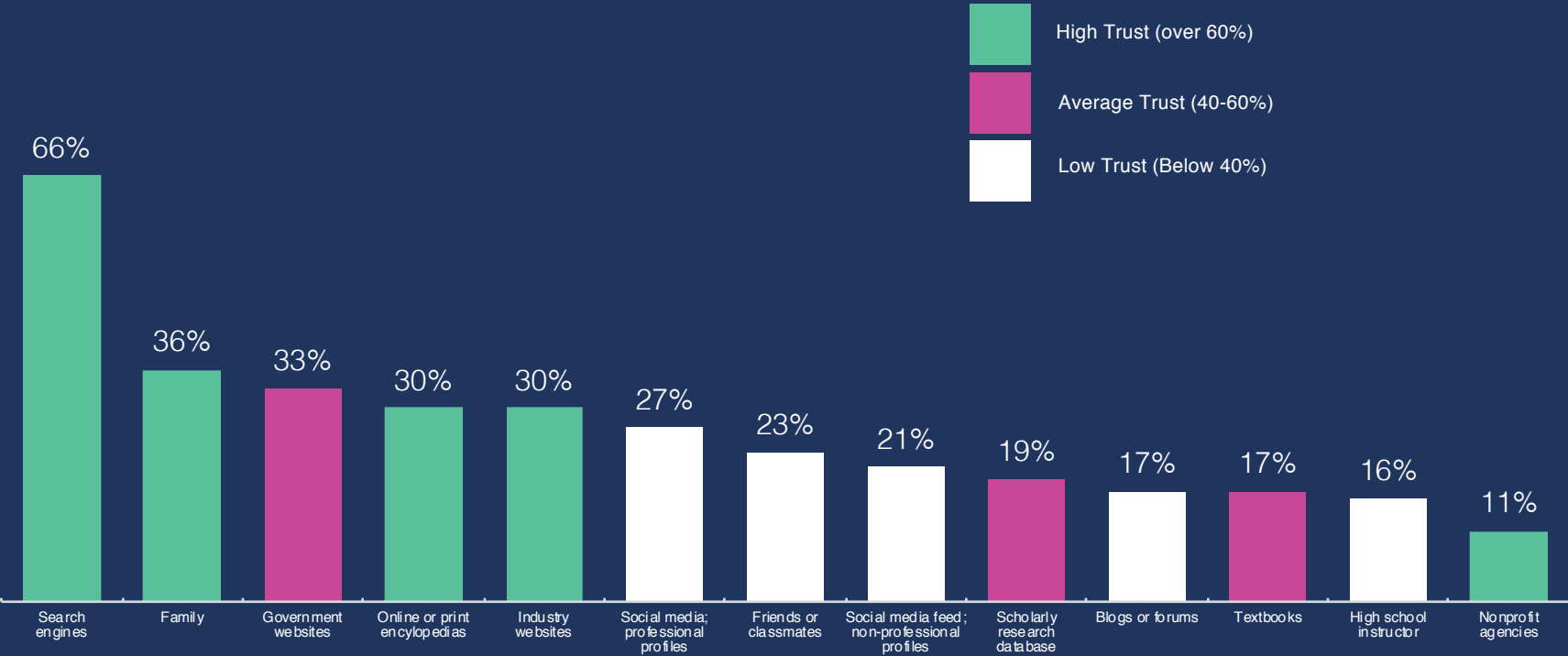
Energy Topics Most Likely to Research Over the Next 6 Months



Sources of Information Students Are Likely to Turn to First About Energy



Level of Trust in Sources as It Pertains to Energy



What's | ?
Next | ?



Think!

— Fill the
Gaps



Talk!

— Engage
Students



Take Action!

— Motivate
Behavior
Change

Call to Action

The energy story

School to Home

Investment in community

Affect *real* change

