

**NEF – Energy Literacy: Wave 2**  
*Survey Questionnaire*  
November 2022

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**RESEARCH OUTLINE**

**Business Objectives:**

1. Establish a robust, standard definition of energy literacy for use within NEF’s programs and to inform the national discussion about energy
2. Create a national and regional understanding of energy literacy among young people at the conclusion of their secondary education
3. Develop data and collateral that NEF can use to establish the organization’s credibility and increase its national presence throughout the country
4. Collect modern data regarding energy literacy for the purpose of point-in-time analysis and longitudinal comparison.

**Research Objectives:**

1. Test the explanatory and predictive value of various elements typically associated with energy literacy
2. Identify understanding of, perceptions regarding, and behavior related to the core elements of energy literacy
3. Assess differences in energy literacy associated with variation in regional, educational, and other demographic categories
4. Understand energy literacy among predefined segments established in previous research

**Methodology:**

National Survey Launch and Analysis

Administer a survey to 1,500 respondents with representative distribution across geography (according to the nine divisions defined by the US Census Bureau), household income, ethnicity, and gender. Age and school status will be distributed as follows:

<b>Age / School Status</b>	<b>%</b>
High School Seniors	50-66%
Age 18-19 HS grads/not yet college)	33-50%
<b>TOTAL</b>	100%

Nested quotas will ensure representative distribution of household income, ethnicity, gender, and age / school status within each of the 4 regions defined by the US Census Bureau.

Parent Starting Survey (for underage respondent):

[TBD]

Parent NOT Starting Survey (for respondent of age):

[TBD]

**BLOCK 1: Screener and Some Demographics**

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NOTE: All programming language/logic in red text. Survey participants will only see black text.

**SCREENER**

**1. [PARENTS: parent = 1] Which of the following best describes your total household income?**

**[YOUTH 18-19: parent = 0] Which of the following best describes your parents' total household income?**

(Single select, required)

<input type="radio"/> <sub>1</sub>	Less than \$15,000
<input type="radio"/> <sub>2</sub>	\$15,000 to \$24,999
<input type="radio"/> <sub>3</sub>	\$25,000 to \$49,999
<input type="radio"/> <sub>4</sub>	\$50,000 to \$74,999
<input type="radio"/> <sub>5</sub>	\$75,000 to \$99,999
<input type="radio"/> <sub>6</sub>	\$100,000 to \$149,999
<input type="radio"/> <sub>7</sub>	\$150,000 to \$199,999
<input type="radio"/> <sub>8</sub>	\$200,000 to \$249,999
<input type="radio"/> <sub>9</sub>	More than \$250,000
<input type="radio"/> <sub>99</sub>	Don't know

---Page Break---

**2. Which of the following best describes the location of your home?**

(Single select, required)

<input type="radio"/> <sub>1</sub>	Urban (a metropolis or a city)
<input type="radio"/> <sub>2</sub>	Suburban (residential area, often on the outskirts of a city)
<input type="radio"/> <sub>3</sub>	Rural (Sparsely populated area)

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**3. [PARENTS: parent = 1] What is the highest level of education you or your partner have completed?**  
**[YOUTH 18-19: parent = 0] What is the highest level of education either of your parents or guardian(s) have completed?**  
 (Single select, required)

- |                          |   |
|--------------------------|---|
| <input type="radio"/> 1  | Less than high school                       |
| <input type="radio"/> 2  | High school graduate (includes equivalency) |
| <input type="radio"/> 3  | Associate or technical degree               |
| <input type="radio"/> 4  | Bachelor's degree                           |
| <input type="radio"/> 5  | Graduate or professional degree             |
| <input type="radio"/> 99 | Don't know                                  |

**[Display only to parents: parent = 1] Please click "Next" and bring your child to the computer to complete the survey. Your child should respond to all questions from this point forward.**

---Page Break---

Thank you for your willingness to take this survey regarding energy literacy. This survey should take approximately 15-20 minutes to complete.

Please click "Next" to continue.

**4. Please indicate your age, in years:**  
 (Numeric entry, required)

<input type="text"/>	Numeric entry
----------------------	---------------

TERMINATE IF: <16 or >19

---Page Break---

**5. Which of the following best describes your current high school enrollment status?**

(Single select, required)

- |                         |                            |
|-------------------------|----------------------------|
| <input type="radio"/> 1 | Freshman [Terminate]       |
| <input type="radio"/> 2 | Sophomore [Terminate]      |
| <input type="radio"/> 3 | Junior [Terminate]         |
| <input type="radio"/> 4 | Senior                     |
| <input type="radio"/> 5 | Recent graduate            |
| <input type="radio"/> 6 | Non-graduate (dropped out) |

---Page Break---

**6. In which state do you currently live?**  
(Drop-down list, required)

	Drop-down list of 50 states, DC, and "Not currently in the U.S."
--	--

TERMINATE IF: "Not currently in the U.S." is selected

---Page Break---

**7. Please select your gender.**  
(Single select, required)

<input type="radio"/>	1	Male
<input type="radio"/>	2	Female
<input type="radio"/>	3	Non-binary or non-conforming

---Page Break---

**8. Which of the following best describes your race or ethnicity?**  
*Select all that apply*  
(Single select, required)

<input type="checkbox"/>	1	White or Caucasian
<input type="checkbox"/>	2	Black or African-American
<input type="checkbox"/>	3	Hispanic, Latino, or Spanish origin
<input type="checkbox"/>	4	Asian
<input type="checkbox"/>	5	American Indian or Alaskan Native
<input type="checkbox"/>	77	Other, please specify: (text)

---Page Break---

**BLOCK 2: Behaviors**

**PLEASE READ CAREFULLY:**

This survey will ask you a variety of questions as it relates to (1) your knowledge of energy concepts, (2) your personal opinions regarding energy consumption, and (3) the personal choices you make regarding energy.

The intent of this survey is to accurately understand your true awareness, opinions, and behavior. Please answer the questions truthfully and to the best of your ability.

---Page Break---

This first portion of the survey will ask questions that focus on where you go to learn more about energy-related topics.

**9. Please take a moment to think about your typical energy usage habits, how often do you do each of the following?**  
(Horizontal single select, randomize, required)

		Never 1	Rarely 2	Occasionally 3	Often 4	Always 5
1	Unplug electronic devices that are not being used	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
2	Actively search for products that are more energy efficient	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
3	Turn off all lights before leaving a room	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
4	Encourage friends or family to be more energy efficient	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
5	Consciously participate in carpooling	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
6	Consciously choose to travel without a car (e.g., walk, bike, public transport, etc.)	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>

---Page Break---

**10. If you had a question about energy (e.g., trends, policy, efficiency, conservation, etc.), where would you be most likely to turn to find information?**  
*Select all that apply*  
(Multi select, randomize, required)

<input type="checkbox"/> <sub>1</sub>	A high school instructor
<input type="checkbox"/> <sub>2</sub>	Textbooks
<input type="checkbox"/> <sub>3</sub>	Friends or classmates
<input type="checkbox"/> <sub>4</sub>	Family
<input type="checkbox"/> <sub>5</sub>	Search engines (e.g., Google search)
<input type="checkbox"/> <sub>6</sub>	Scholarly research database
<input type="checkbox"/> <sub>7</sub>	Online or print encyclopedias (e.g., Wikipedia)
<input type="checkbox"/> <sub>8</sub>	Social media feed; non-professional profiles (e.g., friends, family, or influencers on YouTube, TikTok, Twitter, etc.)
<input type="checkbox"/> <sub>9</sub>	Social media; professional profiles (e.g., industry, non-profit, or subject expert on YouTube, TikTok, Twitter, etc.)
<input type="checkbox"/> <sub>10</sub>	Blogs or forums
<input type="checkbox"/> <sub>11</sub>	Government websites (e.g., Department of Energy)
<input type="checkbox"/> <sub>12</sub>	Industry websites (e.g., utility, gas, renewables, etc.)
<input type="checkbox"/> <sub>13</sub>	Non-profit agencies
<input type="checkbox"/> <sub>14</sub>	Other, please specify: <input type="text"/>

---Page Break---

**11. About which of the following topic areas are you most likely to gather information over the next 6 months?**

Select three

(Multi select, randomize, required, force selection of two)

<input type="checkbox"/>	1	Energy efficiency
<input type="checkbox"/>	2	Environmental impacts of energy actions
<input type="checkbox"/>	3	Economic impacts of energy actions
<input type="checkbox"/>	4	Role of foreign affairs in energy decisions
<input type="checkbox"/>	5	Energy trends
<input type="checkbox"/>	6	Energy resources
<input type="checkbox"/>	7	Energy safety
<input type="checkbox"/>	8	Energy careers/jobs
<input type="checkbox"/>	9	Electrification of transportation
<input type="checkbox"/>	10	Electrification of homes
<input type="checkbox"/>	11	Other, please specify: [text entry]
<input type="checkbox"/>	12	I'm unlikely to gather any information on energy [anchor]

---Page Break---

**12. When it comes to the topic of [Pipe in first selection from Q11, then repeat question for second and third selection from Q11], please indicate the extent to which you trust the information provided by each of the following information sources.**

(Horizontal single select, randomize, required)

		Strongly distrust 1	2	3	4	Strongly trust 5
1	A high school instructor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Textbooks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Friends or classmates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	Search engines (e.g., Google search)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	Scholarly research database	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	Online or print encyclopedias (e.g., Wikipedia)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	Social media feed; non-professional profiles (e.g., friends, family, or influencers on YouTube, TikTok, Twitter, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	Social media; professional profiles (e.g., industry, non-profit, or subject expert on YouTube, TikTok, Twitter, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	Blogs or forums	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11	Government websites (e.g., Department of Energy)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
12	Industry websites (e.g., utility, gas, renewables, etc.)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
13	Non-profit agencies	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
14	Other, please specify: <input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

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**BLOCK 3: Energy Literacy Concepts**

Note: Question options highlighted yellow indicate the correct answer.

**[Section 1: Basic Energy Concepts Questions]**

This next portion of the survey will ask questions that are meant to measure your knowledge of energy-related concepts. With that in mind, please answer each question to the best of your ability. If you don't know the answer, try to make your best guess.

Please **DO NOT** rely on outside sources (e.g., Internet or others) for assistance.

---Page Break---

The next several questions relate to **general energy concepts**.

---Page Break---

**13. Energy is best defined as:**  
(Single select, randomize, required)  
General definition of energy

<input type="radio"/> 1	The flow of electricity
<input type="radio"/> 2	The rate at which work is done
<input type="radio"/> 3	<b>The ability to do work</b>
<input type="radio"/> 4	Work output divided by work input
<input type="radio"/> 5	Fossil fuels

---Page Break---

**14. The original energy source for almost all living things on Earth is:**  
(Single select, randomize, required)

General definition of energy

<input type="radio"/> 1	The sun
<input type="radio"/> 2	Water
<input type="radio"/> 3	Oxygen
<input type="radio"/> 4	Plants
<input type="radio"/> 5	Soil

---Page Break---

**15. Electricity bills charge consumers by the \_\_\_\_\_, the unit of measure for an amount of electricity.**

(Single select, randomize, required)

General definition of energy

<input type="radio"/> 1	Watts (W)
<input type="radio"/> 2	Kilowatt-hours (kWh)
<input type="radio"/> 3	British Thermal Units (BTU)
<input type="radio"/> 4	Volts (V)
<input type="radio"/> 5	Horsepower (HP)

---Page Break---

**16. If an electrical generating plant is 30% efficient, that means that...**

(Single select, randomize, required)

Laws of energy

<input type="radio"/> 1	\$30 of profit is made for every \$100 invested
<input type="radio"/> 2	\$100 of profit is made for every \$30 invested
<input type="radio"/> 3	30 units of energy are lost as heat for every 100 units of energy put in
<input type="radio"/> 4	30 units of electrical energy are produced for every 100 units of energy put in
<input type="radio"/> 5	100 units of electrical energy are produced for every 30 units of energy put in

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**17. Complete the chain of energy transformations for a battery-powered flashlight:  
\_\_\_\_\_ energy → electrical energy → radiant (light) energy**

(Single select, randomize, required)

Energy transformation



<input type="radio"/> 1	Chemical
<input type="radio"/> 2	Mechanical
<input type="radio"/> 3	Elastic
<input type="radio"/> 4	Biomass
<input type="radio"/> 5	Heat

---Page Break---

**18. A light bulb converts...**

(Single select, randomize, required)

Energy transformation

<input type="radio"/> 1	Electrical energy to radiant energy
<input type="radio"/> 2	Chemical energy to radiant energy
<input type="radio"/> 3	Electrical energy to radiant and thermal energy
<input type="radio"/> 4	Chemical energy to radiant and thermal energy
<input type="radio"/> 5	Chemical and electrical energy to radiant and thermal energy

---Page Break---

**19. As a roller coaster descends a hill, what happens to its energy?**

(Single select, randomize, required)

Types and forms of energy

<input type="radio"/> 1	Both its potential and kinetic energy increase
<input type="radio"/> 2	Its potential energy increases while kinetic energy decreases
<input type="radio"/> 3	Its potential energy decreases while kinetic energy increases
<input type="radio"/> 4	Both its potential and kinetic energy decrease
<input type="radio"/> 5	Both its potential and kinetic energy stay the same

**[Section 2: Sources and Types of Energy Questions]**

The next several questions relate to sources and types of energy.

---Page Break---

**20. In 2021, the United States' leading energy resource for new electrical production was:**

(Single select, randomize, required)

Energy sources

<input type="radio"/> 1	Coal
<input type="radio"/> 2	Uranium
<input type="radio"/> 3	Wind
<input type="radio"/> 4	Natural gas
<input type="radio"/> 5	The sun (solar)

---Page Break---

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

(Single select, randomize, required)

Energy sources

<input type="radio"/> 1	Petroleum
<input type="radio"/> 2	Coal
<input type="radio"/> 3	Natural gas
<input type="radio"/> 4	Wind
<input type="radio"/> 5	Solar

---Page Break---

**22. Which of the following resources creates the fewest emissions when used to generate electricity?**

(Single select, randomize, required)

Energy sources

<input type="radio"/> 1	Natural Gas
<input type="radio"/> 2	Coal
<input type="radio"/> 3	Wood
<input type="radio"/> 4	Oil

---Page Break---

**23. The term renewable energy means that a resource...**

(Single select, randomize, required)  
Renewable versus nonrenewable

- |                       |   |  |
|-----------------------|---|--|
| <input type="radio"/> | 1 | Is free and easy to use                  |
| <input type="radio"/> | 2 | Is very efficient to use                 |
| <input type="radio"/> | 3 | Does not produce greenhouse gases        |
| <input type="radio"/> | 4 | Can be converted directly to electricity |
| <input type="radio"/> | 5 | Is a non-nuclear, non-fossil fuel        |

---Page Break---

**24. Which of the following is a renewable energy resource?**

(Single select, randomize, required)  
Renewable versus nonrenewable

- |                       |   |                  |
|-----------------------|---|------------------|
| <input type="radio"/> | 1 | Solar            |
| <input type="radio"/> | 2 | Biomass          |
| <input type="radio"/> | 3 | Geothermal       |
| <input type="radio"/> | 4 | Hydropower       |
| <input type="radio"/> | 5 | All of the above |

---Page Break---

**25. Which three resources provided 79% of the electricity generated in the U.S. in 2021?**

(Single select, randomize, required)  
Electricity mix

- |                       |   |                             |
|-----------------------|---|-----------------------------|
| <input type="radio"/> | 1 | Coal, Natural Gas, Nuclear  |
| <input type="radio"/> | 2 | Natural Gas, Nuclear, Solar |
| <input type="radio"/> | 3 | Natural Gas, Wind, Solar    |
| <input type="radio"/> | 4 | Coal, Natural Gas, Wind     |
| <input type="radio"/> | 5 | Coal, Nuclear, Hydropower   |

---Page Break---

**26. What was the largest source of carbon-free power in the U.S. in 2021?**

(Single select, randomize, required)  
Electricity mix

<input type="radio"/> 1	Nuclear
<input type="radio"/> 2	Solar
<input type="radio"/> 3	Wind
<input type="radio"/> 4	Geothermal
<input type="radio"/> 5	Biomass

---Page Break---

[Section 3: Energy Use Questions]

The next several questions relate to energy use.

---Page Break---

**27. Which of the following uses the most energy in the average American home annually?**  
 (Single select, randomize, required)  
 Consumer energy usage

<input type="radio"/> 1	Refrigerators and freezers
<input type="radio"/> 2	Lighting
<input checked="" type="radio"/> 3	Heating and cooling rooms
<input type="radio"/> 4	Heating water
<input type="radio"/> 5	Electronics

---Page Break---

**28. What percentage of the U.S. overall energy consumption is used for transportation of people and goods?**  
 (Single select, required)  
 General energy consumption trends

<input type="radio"/> 1	10-15 percent
<input checked="" type="radio"/> 2	25-30 percent
<input type="radio"/> 3	40-45 percent
<input type="radio"/> 4	55-60 percent
<input type="radio"/> 5	70-75 percent

---Page Break---

**29. Per capita energy usage in the United States since 2003 has:**  
(Single select, required)  
General energy consumption trends

<input checked="" type="radio"/>	Decreased
<input type="radio"/>	Stayed about the same
<input type="radio"/>	Increased

---Page Break---

**30. In the past ten years, petroleum imports into the U.S. have:**  
(Single select, randomize, required)  
General energy consumption trends

<input type="radio"/>	Increased
<input type="radio"/>	Stayed about the same
<input checked="" type="radio"/>	Decreased

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**31. When used directly for cooking, or drying clothes, or home and water heating, the efficiency of natural gas is about:**  
(Single select, randomize, required)  
Energy Efficiency

<input type="radio"/>	10% - 15%
<input type="radio"/>	30% - 35%
<input type="radio"/>	50% - 55%
<input type="radio"/>	70% - 75%
<input checked="" type="radio"/>	90% - 95%

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**32. Prior to a digging project, underground utility lines should be identified. Who should you call to ensure this is done correctly?**  
(Single select, randomize, required)  
Health and safety factors

<input type="radio"/> 1	The local utility company
<input type="radio"/> 2	811
<input type="radio"/> 3	911
<input type="radio"/> 4	The local fire station
<input type="radio"/> 5	The local city or county offices

---Page Break---

<b>33. Which of the following are all insulators of electricity and help ensure electrical safety?</b>	
(Single select, randomize, required)	
Health and safety factors	
<input type="radio"/> 1	Paper, Glass, Rubber
<input type="radio"/> 2	Copper, Plastic, Glass
<input type="radio"/> 3	Glass, Human Body, Plastic
<input type="radio"/> 4	Teflon, Rubber, Water
<input type="radio"/> 5	Aluminum, Plastic, Rubber

---Page Break---

[Section 4: Energy Efficiency and Conservation Questions]

The next several questions relate to energy efficiency and conservation.

---Page Break---

<b>34. Which of the following is <u>not</u> a potential advantage of using a smart meter?</b>	
(Single select, randomize, required)	
Impact of technology on energy	
<input type="radio"/> 1	Smart meters provide consumers with precise details of their electricity consumption patterns
<input type="radio"/> 2	Smart meters can help consumers identify ways to use energy more efficiently
<input type="radio"/> 3	Smart meters can help consumers manage their electrical use remotely
<input type="radio"/> 4	Smart meters can help the electrical utility better manage the supply of electricity
<input type="radio"/> 5	Smart meters can help consumers save energy without any behavioral actions taking place

---Page Break---

<b>35. Which of the following does <u>not</u> promote energy savings?</b>
---

(Single select, randomize, required)  
Impact of technology on energy

- |                       |  |
|-----------------------|--|
| <input type="radio"/> | Using a space heater                       |
| <input type="radio"/> | Using a high-efficiency shower head        |
| <input type="radio"/> | Keeping your furnace filter clean          |
| <input type="radio"/> | Using LEDs                                 |
| <input type="radio"/> | Wrapping your water heater with insulation |

---Page Break---

**36. Which is an example of a behavior that would not help to use energy more efficiently?**

(Single select, randomize, required)  
Impact of behavior

- |                       |  |
|-----------------------|--|
| <input type="radio"/> | Lower the temperature set point on your water heater |
| <input type="radio"/> | Take a shorter shower                                |
| <input type="radio"/> | Drive 70 mph instead of 55 mph on the freeway        |
| <input type="radio"/> | Run full loads in the dishwasher                     |
| <input type="radio"/> | Utilize public transportation when available         |

---Page Break---

**37. Conserving water also conserves energy.**

(Single select, required)  
Impact of behavior

- |                       |       |
|-----------------------|-------|
| <input type="radio"/> | True  |
| <input type="radio"/> | False |

---Page Break---

**[Section 5: Tradeoffs and Implications Questions]**

This next section relates to energy tradeoffs and implications.

---Page Break---

**38. Which of the following are possible economic impacts of increased energy production:**

(Single select, randomize, required)

Quality of life

- |                                  |   |                                      |
|----------------------------------|---|--------------------------------------|
| <input type="radio"/>            | 1 | Job creation                         |
| <input type="radio"/>            | 2 | Increased tax revenues               |
| <input type="radio"/>            | 3 | Royalty payments for property owners |
| <input checked="" type="radio"/> | 4 | All of the above                     |
| <input type="radio"/>            | 5 | None of the above                    |

---Page Break---

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

(Single select, required)

Quality of life

- |                                  |   |       |
|----------------------------------|---|-------|
| <input checked="" type="radio"/> | 1 | True  |
| <input type="radio"/>            | 2 | False |

---Page Break---

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

(Single select, required)

Energy development impacts and constraints

- |                                  |   |       |
|----------------------------------|---|-------|
| <input checked="" type="radio"/> | 1 | True  |
| <input type="radio"/>            | 2 | False |

---Page Break---

**41. Electric vehicles only use electricity generated from renewable energy sources.**

(Single select, required)

Energy development impacts and constraints



<input type="radio"/> 1	True
<input type="radio"/> 2	False

---Page Break---

**BLOCK 4: Attitudes**

This last portion of the survey will ask questions that are focused on your attitudes and opinions related to energy.

---Page Break---

**42. Please indicate the degree to which you agree or disagree with the following statements about energy.**  
(Horizontal single select, randomize, required, headers repeated every 6 rows)

		Completely Disagree 1	2	3	Neutral 4	5	6	Completely Agree 7
1	Energy efficiency and conservation aren't very important to me	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
2	I'm too busy to be concerned with my energy usage	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
3	It would be too much of an inconvenience to my lifestyle to reduce my energy usage	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
4	When home, I take actions to conserve energy	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
5	I would shift my use of electricity to a different time of day to take pressure off the electric grid	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
6	My efforts to conserve energy will have a positive impact on the environment	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
		Completely Disagree 1	2	3	Neutral 4	5	6	Completely Agree 7
7	I am not willing to conserve energy at home if that comes at any cost to my comfort	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
8	Energy conservation and efficiency are very common topics of conversation among my family and friends	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7

9	Energy efficiency is vital to our national economy	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
10	I have a moral obligation to reduce my energy usage	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
11	As a country, we need to invest more to increase the use of electric vehicles	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
12	I am willing to compromise with those whose views on energy are very different from mine	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
13	Reducing my energy consumption will have a strong, positive impact on my personal finances	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
		Completely Disagree 1	2	3	Neutral 4	5	6	Completely Agree 7
14	We need to develop more ways of producing renewable energy, even if that means energy will cost more	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
15	The United States should be focused on leveraging all carbon-free energy sources (solar, wind, nuclear energy, hydropower, etc.)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
16	The government has a strong role to play in our nation's energy efficiency and conservation policies	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
17	Climate change is a vital issue that must be addressed	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
18	I frequently stay up-to-date on local and national energy issues	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
19	I believe I have a voice in helping to impact energy policies	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
20	Clean energy is more important than reliable and affordable energy	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
		Completely Disagree 1	2	3	Neutral 4	5	6	Completely Agree 7
21	Clean energy should be prioritized over affordable energy	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
22	Becoming an energy independent country is vital to our economic success and national security	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
23	The United States should be focused on leveraging all energy	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7

sources (oil, gas, coal, and renewables)							
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**43. Fast-forward ten years from now, how do you think our nation will change in each of the following areas?**  
(Horizontal single select, randomize, required)

		Significantly decrease	Decrease	Same as today	Increase	Significantly increase
1	Use of oil as an energy source	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
2	Use of natural gas as an energy source	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
3	Use of coal as an energy source	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
4	Production of nuclear energy	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
5	Consumption of renewable energy sources (e.g., wind, solar, etc.)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
6	Technology advancements in energy efficiency and conservation	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
7	Consumer energy awareness	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
8	Government actions to address climate change	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
9	Energy demand	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
10	Energy self-sufficiency (e.g., rooftop solar panels, individual wind turbine, geothermal, etc.)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
11	At-home electricity storage (e.g., batteries that store electricity, including electric vehicle batteries)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
12	Energy consumption costs	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
13	Technology advancements in clean energy technologies	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

	(e.g., better battery storage, advanced nuclear, carbon capture)					
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**BLOCK 5: Demographics**

Great! We have just a few demographic questions before finishing.

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<b>44. Which of the following best describes your high school?</b> (Single select, randomize, required)	
<input type="radio"/>	1 Public
<input type="radio"/>	2 Private
<input type="radio"/>	3 Charter
<input type="radio"/>	4 Homeschool

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<b>45. What is your approximate high school GPA on a 4.0 scale?</b> (Numeric entry, required)	
<input type="radio"/>	1 Numeric entry

---Page Break---

<b>46. Which of the following science classes have you completed as of this point in time?</b> <i>Select all that apply</i> (Multi select, required)	
<input type="checkbox"/>	1 Agriculture
<input type="checkbox"/>	2 Anatomy/Physiology
<input type="checkbox"/>	3 Astronomy
<input type="checkbox"/>	4 Biology
<input type="checkbox"/>	5 Chemistry
<input type="checkbox"/>	6 Environmental Science/Studies
<input type="checkbox"/>	7 Geology
<input type="checkbox"/>	8 Marine Biology/Oceanography
<input type="checkbox"/>	9 Physical Science
<input type="checkbox"/>	10 Physics
<input type="checkbox"/>	11 Zoology
<input type="checkbox"/>	12 Other, please specify: [text entry]

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<b>47. Which of the following math classes have you completed as of this point in time?</b> <i>Select all that apply</i> <b>(Multi select, required)</b>	
<input type="checkbox"/>	1 Algebra 1
<input type="checkbox"/>	2 Algebra 2
<input type="checkbox"/>	3 Calculus
<input type="checkbox"/>	4 Geometry
<input type="checkbox"/>	5 Multivariable Calculus
<input type="checkbox"/>	6 Pre-algebra
<input type="checkbox"/>	7 Pre-calculus
<input type="checkbox"/>	8 Probability/Statistics
<input type="checkbox"/>	9 Trigonometry
<input type="checkbox"/>	10 Other, please specify: [text entry]

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<b>48. Please estimate the number of AP/IB classes you have completed or will have completed by the time you graduate from high school.</b> <b>(Numeric entry, required)</b>	
<input type="radio"/>	1 Numeric entry

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<b>49. Which of the following best describes your plans regarding college?</b> <b>(Single select, required)</b>	
<input type="radio"/>	1 I am planning to go to college, but have not yet begun the application process
<input type="radio"/>	2 My college application(s) have been submitted, but am not yet accepted/enrolled
<input type="radio"/>	3 I am accepted/enrolled in a college but have not yet started classes
<input type="radio"/>	4 I am accepted/enrolled in a college and currently attending classes
<input type="radio"/>	5 I am currently undecided on if or when I'll attend college
<input type="radio"/>	6 I have no plans to attend college

---Page Break---

<b>50. Which of the following best describes your employment status?</b> <b>(Single select, required)</b>	
<input type="radio"/>	1 Not employed year-round
<input type="radio"/>	2 Employed only seasonally (summer or winter breaks)

<input type="radio"/> 3	Employed year-round (less than 10 hours per week)
<input type="radio"/> 4	Employed year-round (10-20 hours per week)
<input type="radio"/> 5	Employed year-round (20-40 hours per week)
<input type="radio"/> 6	Employed year-round (more than 40 hours per week)

---Page Break---

<b>51. Do you consider yourself politically as liberal or conservative?</b> (Single select, required)	
<input type="radio"/> 1	Very conservative
<input type="radio"/> 2	Somewhat conservative
<input type="radio"/> 3	Moderate
<input type="radio"/> 4	Somewhat liberal
<input type="radio"/> 5	Very liberal
<input type="radio"/> 99	Don't know or prefer not to answer

---Page Break---

---End Survey---