

Executive Summary

A Call to Action for the Energy Industry to Invest in Energy Literacy

Energy powers nearly every aspect of modern life, from our transportation and our homes to technology, communication, and economic growth. Yet a new survey from the National Energy Foundation (NEF) shows that many young Americans are entering adulthood without a strong understanding of how energy systems work, the tradeoffs involved in energy decisions, or the wide range of careers available in the energy sector. Strengthening energy literacy is increasingly important as the nation navigates rapid technological change and growing energy demand.

The 2025 National Energy Literacy Survey, conducted among high school seniors and recent graduates, provides the most comprehensive national benchmark of energy knowledge among youth to date. Building on surveys conducted in 2017 and 2022, the survey offers a longitudinal view of how energy literacy is evolving. While energy knowledge has begun to recover following the disruptions of the COVID-19 pandemic, overall literacy levels remain below pre-pandemic benchmarks, and gaps persist across income, geography, and educational access. For the energy industry, improving energy literacy is not only an educational priority, it is also a strategic opportunity to strengthen public understanding while building awareness of future energy careers.

KEY FINDINGS

ENERGY LITERACY IS RECOVERING SINCE THE PANDEMIC

The NEF 2025 National Energy Literacy Survey shows that energy literacy declined during the pandemic but is beginning to recover. The current national score is **46 out of 100**, reflecting improvement but still below pre-pandemic levels.

OVERALL ENERGY LITERACY IS LOW IN THE U.S.

The average score is **46 out of 100**, meaning students correctly answered **fewer than half of the survey's energy knowledge questions**. These include questions on foundational topics such as sources and uses, highlighting significant gaps in energy understanding.

RECOVERY IS UNEVEN

Energy literacy varies significantly across student populations. Students from lower-income households consistently score lower and have experienced slower recovery since the pandemic. Differences also appear across parental education levels, geographic regions, and gender. **Closing these disparities will require stronger collaboration between educators, communities, and industry partners.**

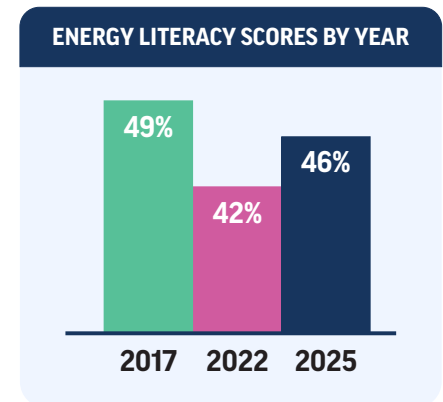


Table 1: Energy Literacy Scores by Year

ENERGY KNOWLEDGE INFLUENCES THE ABILITY TO



Understand Emerging Technologies



Participate in Energy Decision-Making



Explore Energy Career Pathways

STUDENTS ARE ENGAGED IN ENERGY, BUT OFTEN LACK DEPTH OF UNDERSTANDING

NEF's 2025 Survey identified four student engagement profiles. Nearly half of students fall into the “Big Talker” or “Indifferent Onlooker” categories, meaning **many express opinions about energy but lack the knowledge or motivation to engage meaningfully**. Only 24% of students are engaged and knowledgeable about energy!

This gap between confidence and competence underscores the need for stronger education, experiential learning, and real-world connections to energy systems.

1



Agent of Change

Energy is a priority and is fairly engaged across multiple areas.

24%

2



Big Talker

Agrees that energy is important, but is unwilling to change their behaviors.

19%

3



Mindful Wanderer

Sees the importance of energy, particularly efficiency, but unsure what they can do.

25%

4



Indifferent Onlooker

Disconnected on topics of energy, neutral on most points.

31%

WHY THIS MATTERS: AWARENESS GAP OF ENERGY CAREER PATHWAYS

The U.S. energy system is undergoing rapid transformation. Electrification, artificial intelligence, energy grid modernization, data infrastructure, and **evolving energy technologies are reshaping workforce** needs across engineering, operations, technology, policy, and skilled trades. NEF's 2025 survey shows that students lack awareness of energy career pathways.

Improving energy literacy during high school and elementary school can **convert curiosity into career exploration and a new workforce**. For the energy sector, the awareness gap represents a **pivotal opportunity to connect energy education with future workforce needs**.

OPPORTUNITIES FOR ENERGY INDUSTRY ACTION TO IMPROVE ENERGY LITERACY

1

Expand Industry and Education Partnerships

Energy companies, electric and gas utilities, and industry organizations can partner with schools and nonprofit education providers to support classroom learning. Programs that bring industry expertise into schools help students connect academic concepts with the real world of energy.

2

Increase Early Exposure to Energy Careers

Many students are simply unaware of the breadth of careers in energy. Industry can help by:

- Supporting career exploration programs
- Offering internships and mentorship opportunities
- Promoting technical education, apprenticeships, and college pathways
- Early exposure helps students see energy not just as a topic—but as a career pathway.

3

Connect Energy Learning to Emerging Technologies

Students already interact with technologies powered by energy systems, including:

- Mobile phones and computers
- Artificial intelligence and data centers
- Electric vehicles
- Energy saving technologies

These technologies provide powerful entry points for teaching concepts such as electricity generation, grid reliability, energy demand, and system tradeoffs. Connecting learning to technologies students use every day makes energy education more relevant and engaging.

4

Support Equitable Access to Energy Education

Industry partners can help expand access to energy education in underserved communities by investing in:

- Education programs
- Teacher training
- Community partnerships

These efforts help ensure that all students, not just those with existing advantages, have opportunities to develop energy literacy.

5

Inspire the Next Generation of Energy Leaders

Students who develop energy literacy today will become:

- Consumers making energy decisions
- Voters shaping energy policy
- Innovators developing new technologies
- Workers building and operating energy infrastructure

Engaging young people now helps prepare the next generation of energy literate citizens and energy professionals.

MOVING FORWARD

The 2025 National Energy Literacy Survey shows that **energy literacy progress is possible**. As schools continue recovering from pandemic disruptions, student energy literacy is improving. But recovery alone will not ensure a strong energy-literate future.

Strengthening energy literacy and engagement **requires collaboration across education, industry, and community partners**. By investing in youth learning today, the energy sector can help build a generation that understands energy systems, energy sources, and energy trade-offs, and sees opportunities for careers in the energy industry. In doing so, we **strengthen not only energy literacy, but also the future workforce and resilience of our nation's energy systems**.

To view the full 2025 National Energy Literacy Survey report: nef1.org/survey/

WHAT CAN WE DO?

Let's Prepare Students for the Energy Transition, Together!

The post-COVID recovery in energy literacy is translating into promising new behaviors in the 2025 data. We are seeing a new level of engagement. Specifically, 44% of students are consistently unplugging unused electronics, and one-third of students (33%) are actively researching energy-efficient products – up from just 23% in 2022.

While these trends indicate that high schoolers are moving past basic conservation and increasingly applying their knowledge to real-world decisions, there is still a vital step to take before these habits become a universal standard. This is a golden opportunity for instructors, energy companies, and non-profits to move this generation from emerging participants to the fully empowered, career-ready energy leaders of tomorrow.

- Dashboard - National Energy Literacy Survey
- Slide Deck - National Energy Literacy Survey
- Questionnaire - National Energy Survey
- Curriculum Correlations For Survey Questionnaire
- Official White Paper - National Energy Literacy Survey

Contact Us

To view the National Energy Literacy Survey dashboard: nef1.org/dashboard-2025/

1A. Question Selection:
[A high school instructor]

1B. Show...
 Student trust for sources
 Student distrust for sources

2A. Question Selection:
[Unplug electronic devices that are not bei...]

2B. Show behaviors students do...
 Often/Always
 Rarely/Never

2A. Please take a moment to think about your typical energy usage habits, how often do you do each of the following? Unplug electronic devices that are not being used

Frequency	Percentage
Never (1)	10%
Rarely (2)	18%
Occasionally (3)	27%
Often (4)	27%
Always (5)	17%

2B. Please take a moment to think about your typical energy usage habits, how often do you do each of the following? Respondents that answered "Often" or "Always" for each energy use habit

Behavior	Percentage
Turn off lights before leaving a room	78%
Unplug electronic devices that are not being used	44%
Consciously participate in carpooling	33%
Actively search for products that are more energy efficient	33%
Consciously choose to travel without a car	32%
Encourage friends or family to be more energy efficient	32%

For more information, contact us at: nef1.org/contact/

Scan for more information:

