

Careers in Energy and Beyond

Objective

Students will explore career opportunities in energy generation and the electric vehicle (EV) industry.

Materials

- Computer with internet access
- Copies of "Student Sheet: rEV Up Your Future"

Key Vocabulary

Sector

Next Generation Science Correlations

MS-ESS3 - 3
MS-ESS3.C
HS-LS2 - 7
HS-ESS3 - 1, 2



Introduction

Did you know the energy industry currently employs millions and is continuing to grow in response to carbon reduction and energy goals? In 2021, the energy sector showed a 4% increase in jobs, outpacing overall U.S. employment. With an incredible variety of jobs including scientists, designers, engineers, installers, project managers, manufacturers and more, the clean energy sector is overflowing with engaging, well-paying and meaningful careers that provide the opportunity to support your community and environmental sustainability.

In 2018, the fastest growing jobs in 12 states were in renewable energy and the Bureau of Labor Statistics projects that the two overall fastest growing jobs through 2026 will be solar installer (105% projected growth) and wind technician (96% projected growth). Various sectors, parts of the industry, are projected to grow by 2030 and beyond, making the clean energy industry an ideal option for any students debating careers. Electric Vehicles (EVs) are projected to make up 64% of automobile sales by 2030. The Bureau of Labor Statistics reports on a Center for Entrepreneurship and Technology at the University of California, Berkeley study which estimates an additional 130,000 to 350,000 new jobs to support that growth.

With careers offered in a variety of industries, including EVs, electric power, natural gas, nuclear and various renewables, there is no shortage of ways for students to get involved in a profession they're passionate about and to help make a positive impact on their community. Fortunately, there are multiple paths to these jobs, some with a high school diploma, trade school or apprenticeship and others with an associate's, bachelor's or master's degree. Many entry level positions offer on the job training to acclimate new hires to the industry and offer a clear path of advancement for those who wish to move up in time.

Let's take a look at a few different career paths in clean energy and what might best suit students' unique interests and goals.



Procedure

1. Have students review these fliers for an overview of careers in the energy industry. If possible, post links on classroom LMS:
getintoenergy.org/wp-content/uploads/2021/08/Student-Pathways-Download-Flier.pdf
getintoenergy.org/wp-content/uploads/2021/08/GIE-Myths-and-Misperceptions.pdf
2. Direct students to visit getintoenergy.com/career-quiz/ and take the brief career quiz to learn which job best aligns with their interests.

3. Instruct students to complete the “rEV Up Your Future” student sheet.
4. In small groups, have students discuss their matched job, career of interest (if it differs) and job duties, along with what interests them about the position(s) and what’s needed to attain that career(s).
5. Lead a class discussion where students engage around what was shared by their peers and discuss which industries and positions interest them most, and why.



Discussion

1. Which types of jobs were of most interest to students? What were the most positive aspects? Were there drawbacks?
2. What are the benefits of electrification? How does this process of replacing technologies that use fossil fuels with technologies using electricity create jobs?



To Know and Do More

1. Visit [bls.gov](https://www.bls.gov) to find current opportunities in the area.
2. Direct students to work with a guardian to find someone working in an area related to their future career choice. Have them ask what they love about their job and what they wish they knew at the student’s age.

Student Sheet: rEV Up Your Future

Review these fliers:

getintoenergy.org/wp-content/uploads/2021/08/Student-Pathways-Download-Flier.pdf

getintoenergy.org/wp-content/uploads/2021/08/GIE-Myths-and-Misperceptions.pdf

Take this career quiz:

getintoenergy.com/career-quiz/

Research the career you were matched with and complete the following sheet. Also review the additional careers listed on the website to see if any other jobs stand out to you.

Matched career: _____

Job responsibilities: _____

Certifications or credentials needed: _____

What appeals to you about this position (e.g. job security, work/life balance, salary and benefits, personal values, high demand, competitive position, job responsibility, rewarding work, opportunities for growth and advancement, work environment, solo or team work, technology, recognition)?

What other career(s) stood out to you? _____

What appeals to you about that career(s)? _____
