



# Alternative Energy

## EMPLOYEE INTRODUCTORY NOTES

This *Employee-Led Activity: Share My Career Session*, along with the Employee Guide, are designed to help you have a positive and meaningful experience sharing your career expertise with a group of students in your community. This session could take place at a school during a regular class period, an afterschool club, an evening community night, or a career fair event.

Holding a preplanning conversation with the classroom teacher or adult facilitating the group of students is critical to ensure your session is valuable for the students. Be sure to reference the Employee Guide for helpful information to plan your school visit. The end of this document also includes sample questions students may ask of you during your visit.

This *Employee-Led Activity: Share My Career Session* could run as short as 20–30 minutes in length or extend to 45–50 minutes depending on the time frame available to you and your preplanning with the teacher or adult facilitator.

The information below is designed to help guide your discussion with the students. There are two options presented, so you can choose what fits best for you, the students, the setting, and time frame. You do not have to cover every topic noted below but can choose which items make the most sense given your preplanning conversations with the classroom teacher, the age/ grade level of the students, and the amount of time you have for the session.

Students will value an authentic and clearly-worded presentation that engages them and inspires them to ask questions. Think of this document as a guide to help you think about your presentation, but be sure to value the preplanning session and be open to adding other elements to your session as well. Your company may also have brochures, a job-search website, summer internships, and/or other experiences/events that students would find both informative and interesting.

## OPTION #1

### Welcome and Introductions | 5–10 Minutes

- Introduce yourself and extend a warm welcome and hearty thanks to the students and teacher for inviting you into their classroom and school.
- Tell students they can raise their hand at any time to ask questions.
- Explain to the students what you do and who you work for (company and division in the company). Dress the part if you can. Wear your work clothes so students see how you look on an average day.
- At this stage of your introduction, consider asking: “What do you think I do in my job?” This question may spark comments from students that could reinforce correct information and/or give you a chance to correct misconceptions that students may have.

# Alternative Energy

SHARE MY CAREER (CONTINUED)



- Remember to keep the age level of the students in mind and consider if you'll need to define any technical vocabulary to help them better understand your job. Be prepared to define words in simple, relevant, and relatable language.

## Career and Job Exploration | 5–10 Minutes

Use this section of your presentation to dive more deeply into your career and specific job. Be prepared to explain any of the following items:

- What your company does.
- Why your company's work is important and relevant.
- How your company contributes to the field of energy.
- What specifically you do in your job and how it contributes to your company's mission.
- What you like best about doing your job. (Describe a typical day, including what your responsibilities are and who you work with.)
- What education and/or skills that may be required for people in your job.
- What skills you apply on the job every day—writing, communication, reading, etc. What STEM skills—math, science, engineering, technology—you use in your job.
- Explain how your career may relate to your hobbies or interests.
- Share how you collaborate and communicate with other employees.
- How you use elements of creative thinking and/or problem-solving skills in your work.

## Engaging Students' Content Knowledge about Your Job | 5–10 Minutes

See what students already know or think they know about your industry, career, or specific job. This section should be guided by your expertise and the important knowledge about your career and industry that you can share with students.

Share with students some basic information about the alternative energy field, such as:

- Alternative energy refers to types of energy that can come to replace fossil fuels and coal in decades to come. It generally refers to forms of energy that don't increase humans' carbon footprint.
- Forms of alternative energy include:
  - **Solar power:** Photovoltaic cells convert the Sun's rays directly into electrical energy.
  - **Nuclear Power:** Slow-fission reactions produce energy.
  - **Hydroelectricity:** Water in rivers or canals spin turbines, which generate electricity.
  - **Wind Power:** Wind turbines are spun by the wind to generate electricity.
  - **Geothermal Power:** Heat and steam produced by geological activity are streamed through turbines, which create power.
  - **Biomass:** Fuels derived from plants and natural sources that have the potential to replace gasoline

# Alternative Energy

SHARE MY CAREER (CONTINUED)



- Many forms of alternative energy are completely renewable—such as wind, solar, geothermal, and hydroelectric power.
- In 2020, alternative energy accounted for 40% of the United States' electricity generation.

Ask students to answer the following questions. You can do this as a whole group, or students can work in pairs/ small groups and confer with one another before sharing their answers.

- How does energy affect your everyday life?
- Do you...
  - Use lights?
  - Use heat or air conditioning?
  - Use appliances in your home, like the fridge or washing machine?
  - Take warm showers or baths?
  - Charge your electronics?
  - Ride in vehicles that use gasoline?
  - Buy items online that need to be shipped to you?
- Do you think you could reduce your energy consumption? How?
- There are many different careers available within the alternative energy field. Energy production, manufacturing, transportation, farming, consulting, engineering, and architecture
- just some of the areas of work in this area...and there are many different jobs within each of these fields! What career(s) in the alternative energy industry may interest you?
- If you were to learn more about one type of alternative energy, which would it be?
- How does alternative energy help protect the environment?
- Do you know anyone who works in the energy field? (This is an opportunity to engage students and make connections to their experiences to your job or industry.)

## Closure and Summary Notes | 5 Minutes

When you come to the end of your session with the students, thank the students and teacher again for their time and participation. Please be sure to share resources from your company and from the STEM Careers Coalition website ([stemcareerscoalition.org](http://stemcareerscoalition.org)) that students or teachers can explore for more information.

Be prepared to share 2–3 succinct closing points that help pull together the experience for the students.

These 2–3 points could be:

- Words of encouragement to get students excited about the alternative energy industry or your career.
- Specific advice to stay engaged in school and/or to seek learning opportunities about diverse topics in order to discover what they may want to consider as a career path.
- Additional resources that students could access from your company, if available, such as a website, internships, or extension experiences to learn more about the alternative energy field.

# Alternative Energy

SHARE MY CAREER (CONTINUED)



## OPTION #2

This option is designed if you know you only have 20–25 minutes to speak with students and/or if you are possibly speaking to many groups of students throughout a school day or during an after-school career fair or community night event.

Of course, you can also draw upon these ideas if you are conducting a longer session in a classroom with one group of students.

### Introduction | 5 Minutes

Allow time for the students to get to know who you were when you were their age. Where did you grow up? What did you enjoy doing in middle school or high school? What were your favorite subjects in school?

### Career Path | 5 Minutes

How did you transition from the middle or high school student you just described to the person you are now? What college/community college/apprenticeship/internship experiences did you learn from? When did you decide what you wanted to be when you grew up? What jobs did you have before the one you have now? Why did you decide on your career?

### Career Role | 5 Minutes

What is your current job title? What does this mean? What are your day-to-day responsibilities? What problems does your job help solve? What excites you most about working in the alternative energy field? What did you learn in school that helped you in this career? Is there a subject area you wish you had learned more about in school?

### Future | 5 Minutes

What do you aspire to do next? What problems do you still want to solve? What problems or innovations could the next generation of employees in the alternative energy field tackle? What does the future look like for your career? If someone wanted to pursue a career similar to yours in the alternative energy industry, what advice would you give?

### Question and Answer | 5 Minutes

Be sure to thank the students and teacher or adult facilitator at the end of your session. You may also share resources from your company or from the STEM Careers Coalition website ([stemcareerscoalition.org](http://stemcareerscoalition.org)) that students or teachers can explore for more information.

### Samples of frequently asked questions by students

Here are some sample questions that students may ask. It may be helpful to think about how you would answer these questions prior to your presentation.

- How long have you worked at your job?
- What projects are you working on now?

# Alternative Energy

SHARE MY CAREER (CONTINUED)



- What does your office or job site look like?
- What type of special training, if any, have you had?
- How many hours do you work each day?
- Do you ever have to travel for work?
- Do you use any of the energy types that you work with?
- What type of alternative energy intrigues you the most?
- Do you have any ideas for new ways to produce alternative energy?
- How much money do you make? (You may not want to state your actual salary, but can provide a salary range for jobs like yours.)
- What is the most important part of your industry?
- What do you find hardest or most challenging about your job?
- What do you really like about your job? (Have an answer prepared in advance for this question that is age appropriate for the students with whom you are working. Older students may be interested in hearing more about technology advancement, innovation, and/or the environmental elements of your work. Younger students may be excited to hear stories about specific projects you have been involved with or your favorite place that you've had to travel to for your job!)