



This article is part of our **Industry Spotlight** series - based on our popular emails - where we focus on a different Career Zone in each article. To help students learning from home during the coronavirus lockdown, each article comes with a worksheet [which you can download here](#).

Energy companies turn natural resources into fuel we can use to heat and light buildings, and power vehicles and appliances. Suppliers bring usable energy into our homes and workplaces, while other utility companies provide services like phone lines, broadband, water and sewage systems.

This article introduces you to careers in Energy & Utilities - read on for the whistle-stop tour, and click the links to read more.

Energy & Utilities: What's it all about?



Energy & Utilities is an evolving industry. As we fight climate change, renewable energy is taking off quickly, and makes up a fifth of the UK's electricity. We have more wind farms in the seas around our coast (known as "offshore") than any other country in the world. Fossil fuels such as oil, coal and gas still make up part of our energy mix, and, by 2025, up to a quarter of our energy will be produced from nuclear generation.

Making energy is only one part of the picture. It also has to be connected to our homes, workplaces and other buildings, along with other utilities such as phone lines and broadband, water and sewage systems. [View Career Zone](#).

What jobs are out there?

More than one in 50 people work in the energy industry. Before we look at some specific jobs in the industry, take a look at this video (on YouTube) to learn how an energy career could change the world: Why your energy career could change the world by Success at School.

Here are just some of the jobs available:

- **Scientists:** Geoscientists, geologists and chemists search for the perfect places to extract natural resources and turn them into energy.
- **Mudloggers:** This unusual-sounding bunch help scientists collect and analyse soil, rock and liquids thrown up by drilling to find oil or gas.
- **Engineers:** **Engineers** work out how to extract resources to make energy, from fossil fuels like coal, gas and oil, to renewables such as wind, solar and tidal or wave energy. Some carry out the hands-on work required to get the energy, and others look after utilities such as plumbing and wiring.
- **Skilled workers:** There are also lots of jobs for skilled workers including welders, pipelayers and scaffolders.
- **Diving:** A lot of the hunt for resources goes on underground or underwater so [commercial diving jobs](#) are also common.
- **Hydrologists:** Identify, create and look after water sources, to ensure we can all access it safely from our taps at home and that it doesn't run out.
- **Electricians:** Wire up our homes, factories and businesses to make sure we get electricity to all of the places we need, and safely too.
- **Plumbers:** Do the same job with water, gas and sewage pipes and are there to fix boilers, blockages and leaks when things go wrong.
- **Sales and marketing:** These teams come up with new ways to attract customers to choose a utility provider and can plan big national campaigns.
- **Administration/management:** There are also lots of jobs available in [HR](#), [finance](#), [legal](#), [project management](#) and health & safety.

Who will I work for?



Companies in the energy industry fall into three basic groups - those that **generate energy**, those that **get energy to the customer**, and those that **sell it to the customer**. Some companies do all three of these things. Water companies provide drinking water and sewage systems, and telecomms companies look after phone lines, TV services and broadband connections. You could work for a big company in one of these areas, one of the many smaller companies, or a supplier to one of these companies.

Am I cut out for it?

Given the range of jobs out there, there's probably something that will appeal to you. Here are some things to bear in mind:

- **Work outdoors:** Many of these jobs, particularly those involving building, maintenance or prospecting work (searching for resources), give you chance to work in the great outdoors - which has its pros (invigorating, active, fun) and cons (can be cold and wet).

- **Away from home:** If your work involves identifying and extracting new sources of power, you may find yourself [working away from home](#), either within the UK or all over the world.
- **Make a difference:** Jobs in Energy & Utilities are essential to modern life: they keep us warm, watered, powered up and connected. By choosing to work in renewables, you will help keep the planet safe from climate change by helping us shift away from harmful fossil fuels.

Of course, there are plenty of office jobs available in the Energy & Utilities industry, so there are options for you if you don't want to travel or get soggy.

Is a career in Energy & Utilities future proof?

Yes! **Renewable energy** is taking over from the dirty fossil fuels we used to rely on as we move towards sustainable energy sources and try to combat climate change. This will create thousands of new jobs across the spectrum of energy roles.

The government wants to roll-out high-speed broadband across the country in a big way to make sure everyone has a decent internet connection. This means many more jobs for engineers and technicians in the **telecoms sector** - and more back-office staff too.

How do I get there?



Apprenticeships

Apprenticeships all the way [from intermediate up to degree level](#) are available in many roles in the Energy & Utilities industry.

These include:

- [Engineering apprenticeships](#) tend to be on the practical side of engineering. If you want to design engineering solutions, you will need a degree.
- Skilled jobs such as welding, pipelaying, scaffolding and [plumbing](#) are available through apprenticeships.
- [Electrical engineers](#), who carry out practical work on the national grid and its connection to buildings, can train via an apprenticeship.
- Wind turbine operations and maintenance is available specifically in the renewable energy sector.

University

[University](#) is the option for you if you want to work in high-skilled areas which generally require a degree, such the design part of engineering, or a degree-level understanding of science, such as geoscientist, chemist or hydrologist.

What should I study?

Depending on what you'd like to do, you could study:

- Engineering for the technical, design aspect of engineering.
- Geology or physics is usually required for a career in geoscience.
- Environmental science, geology, or engineering with a specialism in hydrology for careers in hydrology.

How do I find a job?

- Look for **graduate schemes** with energy companies and utility providers.
- Also search for **graduate-level job vacancies** - you don't have to complete a graduate programme to do a grad job.

- A **Google search** in your chosen area of work should get you started.
- Try searching for the names of companies near you that work in the **area of energy industry** you want to work in: generation, supply or sale.

More resources:

- [5 types of renewable energy jobs you could do](#)
- [Going green: 10 cool environmental jobs you could do](#)
- [Where can environmental science take me?](#)

Receive resources straight to your inbox. Click below to subscribe:

- [Teachers](#)
- [Parents](#)
- [Students](#)

Spotlight on: Energy & Utilities

Worksheet



Resource link: <https://mailchi.mp/successatschool/careers-in-energy-utilities-1277015>

Task #1: My 3 favourite jobs

Look at the section **What jobs are out there?** in the email newsletter (see link above). Pick three job roles that appeal to you from the examples given and carry out research to fill in the table. You can use the Success at School website (<https://successatschool.org>) and the internet to carry out your research.

Job role	1 thing I think I would enjoy about the role is...	1 skill used in this role which I already have is...	1 skill used in the role which I do not yet have is...
1.		...and this is how I can demonstrate that I have this skill:	...and I will develop this skill by...
2.		...and this is how I can demonstrate that I have this skill:	...and I will develop this skill by...
3.		...and this is how I can demonstrate that I have this skill:	...and I will develop this skill by...

Task #2: Employers

Pick your favourite role from the 3 you selected above. Use the internet to research:

- 1 employer in your local area (e.g. your town, city, county)
- 1 employer somewhere else in the country

The employers must offer this job role.

My chosen job role	
Local employer	
National employer	

Task #3: Pathways into work

Using the job you chose to research in Task #2, carry out research to find out how you could enter this career path by (1) an apprenticeship and (2) a university course.

Apprenticeships		University	
Apprenticeship title		Course title	
Apprenticeship level (e.g. advanced, higher, degree)		University name	
What subjects do you need?		What subjects do you need?	
What grades do you need?		What grades do you need?	
Qualifications you will gain		What do you need to do after you graduate?	