

VOCATIONAL

PATHWAYS



**VOCATIONAL ROUTES INTO
THE ENERGY SECTOR**



WHAT IS THE ENERGY SECTOR?

Do you care about the environment?

Do you enjoy working in a team?

Do you enjoy working with technology?

If so, a job in the energy sector could be a perfect job for you.

The energy sector relates to the production and supply of energy and is one of the UK's fastest growing industries and consists of a wide range of roles. As our climate changes, the demand for using renewable energy sources such as solar, wind and tidal energy becomes more important and there is a much greater demand for workers with technical skills and awareness of environmental factors.

Jobs normally fall into one of the following categories:

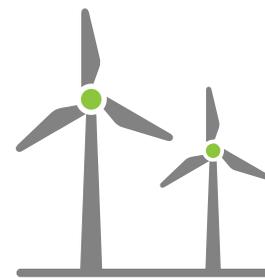
- Environment, Health & Safety
- Planning & Operations
- Logistics & Support Services
- Infrastructure Management
- Science, Data and Analytics
- Engineering, Design and Construction

WHY THE DIGITAL SECTOR?

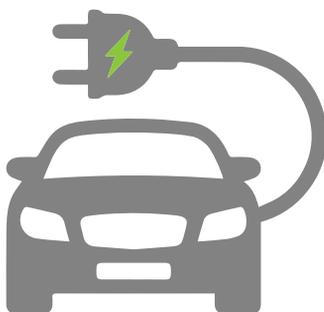
WORKING IN THE ENERGY SECTOR OFFERS THE CHANCE TO BE PART OF AN EXCITING, GROWING INDUSTRY AS WELL AS PLAYING A PART IN THE PROTECTION OF THE ENVIRONMENT.



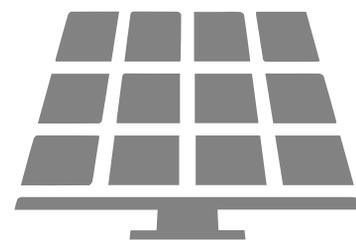
About **18 MILLION PEOPLE** currently work in the energy sector worldwide, this is set to rise to 26 million by 2050



1 offshore wind turbine can supply **3312 HOUSEHOLDS** with electricity



The North East is home to the **FIRST ELECTRIC VEHICLE BATTERY PRODUCTION FACILITY** in Europe, and there are 2 more facilities currently under development



By 2030, **46% OF GREEN JOBS** will be in clean electricity generation, 21% will be in installing energy efficient products and 14% will be involved in manufacturing low- emission vehicles.

WHAT KIND OF JOBS EXIST IN THE ENERGY SECTOR?



GAS ENGINEER

Either specialising in installation or service, whether it's for individual use to help with heating in the home, or maintaining systems in a large office building or even on industrial estates.

WELDER

Assembles bits of metal together or repairs damage in metal components.



WIND TURBINE TECHNICIAN

Carries out minor maintenance tasks and reports any faults.

CRANE OPERATOR

Helping move equipment, materials and supplies to the right place at the right time.



Where these jobs may take me?

There are excellent training and progression opportunities within the energy sector and if you do well, you could move up in your current role or move into something new. Many of the careers will also allow you to move to other sectors.



IS IT FOR ME?

SEE HOW MANY OF THE SKILLS BELOW YOU ARE GOOD AT:

- Good communication
- Good at problem solving
- Attention to detail
- Happy to work in a team
- Reliable
- Don't mind wearing uniform or safety equipment
- Good coordination. Good with hands
- Operating computers/ machinery
- Able to follow instructions
- Don't mind working shifts
- Can work under pressure
- Don't mind working outside

TYPICAL WORKING CONDITIONS

You could work outdoors on land or at sea, in an office or in a laboratory. Many roles provide opportunities to travel and work in unusual environments across the globe.

You may be required to wear a uniform and safety equipment.

You may be needed to work shift work and at weekends or over holidays.

You could work in a small team.

HOW TO DEVELOP SKILLS

Employers wouldn't expect you to have experience in many of the jobs in the energy sector but if you can show that you have demonstrated some of the skills required for that job on the previous page, this shows the employer that you may be suited to the role.

Examples:

"I am really good at solving problems and trying to find a solution. I demonstrated this when we took part in a school competition about climate change and finding green solutions."

"I have had a paper round and I had to do this every weekday before school. This shows that you are reliable, good at time keeping and can organise your time appropriately."

"I am really good with my hands and coordination and regularly fly a drone which takes videos and photos."

CASE STUDY: EDF



Dave
**Procurement
Engineer**

What is your role at EDF?

Currently my role at EDF is a Procurement Engineer, I'm a chartered mechanical engineer by profession but the procurement engineering role is making sure that all the right spare parts which we have on our shelves come through the system correctly and are fit for purpose to go into our plant so it stays safe and reliable.

What kind of apprenticeships do you offer at EDF?

Historically these have been maintenance technicians, now we are looking more at project type engineering skills and project management skills. Across the sector with wind turbine farms and gas turbine power plants, they are still going through the phase of needing maintenance technicians.

Is EDF an inclusive company offering employment opportunities at all levels?

Yes, EDF is an inclusive company and we can also extend that to our partners so there are a whole range of different roles which they offer.

What benefits are there to taking a vocational route such as T levels or an apprenticeship?

You get to be hands-on and learn through experience. There are lots of routes into engineering including starting in auto maintenance and there are lots of ways you can build your career up.

Once you get to the nuclear industry, that's the higher risk, better paid end of the work and because of that your skills and experience and behaviours all have to match the workplace.

Are there opportunities to progress after completely an apprenticeship?

Absolutely, most of the people I work with now started off as apprentices, they are now in engineering or they are leading teams or maintenance technicians, so they have all progressed into either management or into the technical routes to enhance their careers and also their salaries.

If someone was interested in a career in the energy sector, what advice would you give them?

The advice would be to get in early, know what kind of job and what routes you want to get into. For engineering, it's relatively easy, there are lots of job opportunities at the moment. The energy sector is booming, two new nuclear power plants, old nuclear plants getting decommissioned, wind, gas turbines; it's all going on at the moment so the opportunities are out there. Decide where you want to go and what you want to do. Once you've decided on that make sure you've got the right qualifications or pursue those qualifications. If you can't get those qualifications first time around and you're still intent on going into that career, keep on going and try and get some relevant experience. If you can start a little bit lower down with qualifications and experience, then do that as the opportunities do keep coming and that's certainly going to be the case over the next two or three decades and the opportunities are not just around this country, they are around Europe, around the Middle East and elsewhere.





ROUTES INTO THE ENERGY SECTOR

In many cases, GCSE-level qualifications will be enough to get you started, but if you do not have these there may be some alternative routes you can take.

There are a large range of Level 2 and 3 apprenticeships available within the energy sector or you could consider a traineeship or other short course which includes work experience to help prepare you for further education, work or an apprenticeship.. The following Pathway Map (page 9) will help you understand the different levels and options available.

Examples of level 2 and 3 apprenticeships include:

- Plumbing & Domestic Heating Technician
- Welder

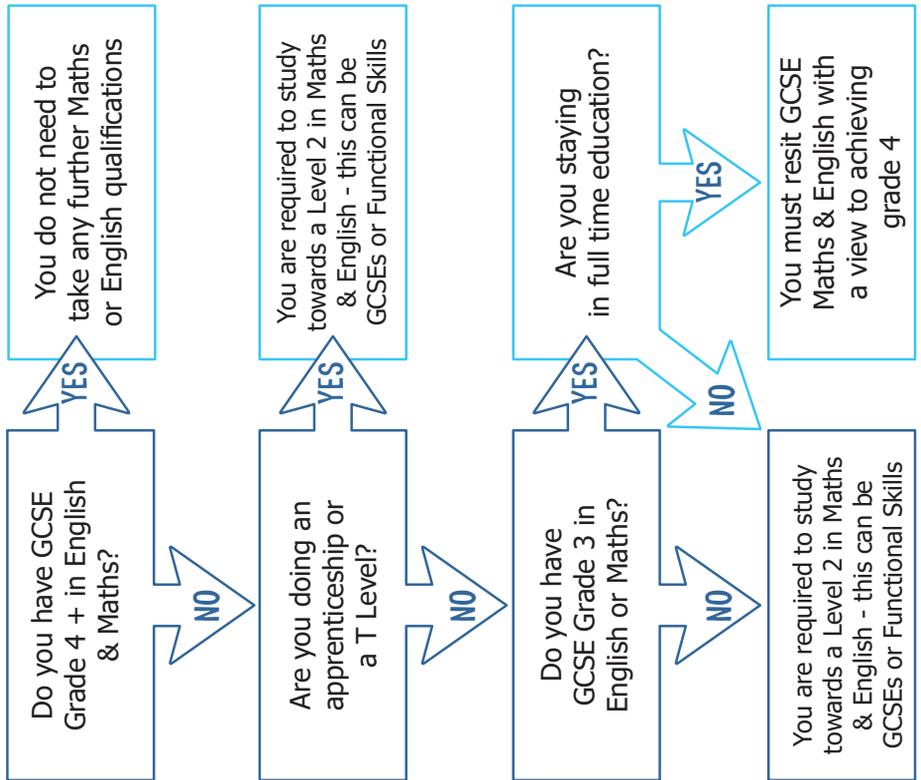
- Fabricator
- Maintenance Technician
- Service Engineer
- Engineering Operative

Examples of T Levels which would help you in the energy sector include:

- Design and Development for Engineering and Manufacturing
- Engineering, Manufacturing, Processing and Control
- Maintenance, Installation and Repair for Engineering and Manufacturing

VOCATIONAL PATHWAYS

DO I NEED TO DO EXTRA MATHS OR ENGLISH STUDY?
(REQUIRED BY 16 TO 18 YEAR OLD OR 19 TO 25 IF HOLDING AN EHCP)?



LEVEL ONE

- Functional Skills
- Supported Internships / Study Programmes
- Traineeships
- Pre-Apprenticeships

LEVEL TWO

- GCSEs
- Intermediate Apprenticeship
- BTEC Level 2 / NVQ 2
- Supported / Inclusive Apprenticeship

LEVEL THREE

- BTEC Level 3 / NVQ 3
- A Levels
- T Levels
- Advanced Apprenticeship
- Paid Employment - if over 18

LEVEL FOUR +

- Higher Apprenticeship
- Higher Technical Qualifications
- University / Degree

*there maybe some exemptions to this - always check with providers

	Description	Entry Requirements	What it could lead to
Functional Skills	An alternative to GCSEs for maths, English & ICT with a more practical and real life context	None	Apprenticeship Traineeship
Supported Internships / Study Programmes	A structured study programme/ partnership based mainly with an employer	ECHP	Paid employment Supported apprenticeship
Pre-Apprenticeships	A programme of study aimed at exploring different industries and job roles	Up to the training provider / employer	Traineeship
Traineeship	A work focussed study programme that prepares you for an apprenticeship or work	Have little or no work experience and qualifies below Level 3	Apprenticeship Supportive employment
Supported Inclusive Apprenticeships	A real job with training and a salary	ECHP	Paid employment
Apprenticeships	A real job with training and a salary	Employer dependent. Age 16+ Evidence of interest and ability to complete	Higher level or degree apprenticeship University or college Paid Employment
BTECs / NVQs - Technical / Vocational qualifications	Qualifications that teach you how to do tasks specifically related to the industry and role you want to be in	Course dependent	Apprenticeship University or college Paid employment
T Levels	A technical study programme similar to 3 A levels with an industry placement which takes up 20% of the course	Set by each school/ college	Apprenticeship University or college Paid employment

FIND OUT MORE

To find out more about technical and vocational training and support for additional needs:

https://resources.careersandenterprise.co.uk/sites/default/files/2021-05/Your%20Options_FINAL%20VERSION.pdf

OTHER USEFUL LINKS:

Apprenticeships:

<https://www.gov.uk/apprenticeships-guide>

This includes a link to the Find an Apprenticeship Service, where apprenticeship vacancies are listed and can be applied for. Where an employer is Disability Confident, the logo will display on their vacancies in the service: <https://www.gov.uk/apply-apprenticeship>

Further information is also available here:

<https://www.gov.uk/government/publications/a-guide-to-apprenticeships#history>

For more information on the English and maths flexibilities available for some people with learning disabilities and difficulties, see here: <https://resources.amazingapprenticeships.com/resources/changes-to-english-and-maths-requirements-for-apprenticeships/>

For more information on Access to Work and apprenticeships, visit this webpage: <https://www.gov.uk/access-to-work>

Traineeships:

www.getingofar.gov.uk/traineeships

www.gov.uk/find-traineeship to search for traineeships near you

www.gov.uk/government/publications/traineeship-providers

Supported internships - <https://www.preparingforadulthood.org.uk/downloads/supported-internships/fact-sheet-supported-internships.htm>

Energy Sector Careers:

<https://www.myenergyfuture.co.uk/energy-careers/#section-2>



Produced in conjunction with:

