Offshore Energy

Do you want to be part of an industry that powers homes, keeps businesses running, and plays a major role in tackling climate change? Offshore energy is at the forefront of producing the electricity we need, while leading the shift toward a greener low carbon future.

The offshore energy sector is diverse and integrated. It includes oil and gas, hydrogen, carbon capture and storage, offshore wind, wave and tidal. Starting your career in one means you can then work in the others because many of your skills will be transferable across the energy mix.

These sources of energy not only help meet our current electricity demands but are vital in reducing carbon emissions.

If you enjoy working on big projects that can have a real impact on the environment and society, the offshore energy industry might be perfect for you.

The image below shows the four new technologies helping the UK achieve carbon neutrality.

What areas can I work in?

The offshore energy sector offers a wide range of exciting roles. You could work in:

- offshore wind farms, installing or maintaining wind turbines out at sea
- oil and gas platforms, helping to extract and manage the resources that power much of the world
- supply chain companies providing services, goods and expertise to offshore energy companies (see the Transport and Distribution Career Area)
- marine engineering, ensuring that the equipment and vessels used in these industries are efficient and safe (see the Engineering Career Area).

In addition, there are many more varied roles in areas such as administration and management, communications and media, law and finance!

The list below demonstrates this variety, by showing the expected top 10 occupations for the energy sector in Scotland by 2027 [5]:

- Science and Technology Professionals - 16,800
- Business and Public Service Associate Professionals - 12,600
- Business and Public Service Professionals - 9,200
- Skilled Metal and Electrical Trades - 9,200
- Corporate Managers - 6,300
- Administrative Occupations - 6,100
- Science and Technology Associate Professionals - 5,900
- Process, Plant and Machine Operatives - 4,300

- Transport and Mobile Machine Drivers and Operatives - 3,700
- Customer Service Occupations - 3,500.

To see the routes to getting into each of these sectors, take a look at our Career Pathway.

What kind of companies can I work for?

You could work for a variety of employers, including:

- renewable energy companies
- oil and gas companies
- oil and gas field services companies
- engineering firms specialising in offshore construction
- energy technology developers
- catering and facilities companies
- energy and environmental consultancies
- decommissioning companies.

What's the job market like?

The offshore energy sector is a key part of the UK's economy. There is high demand for skilled workers, particularly in renewable energy, where the UK is a world leader. The growing emphasis on sustainability and decarbonisation means that this industry will continue to evolve, offering exciting opportunities for the future.

With a drive toward cleaner energy, the UK government and businesses are heavily investing in renewable technologies and decarbonising oil and gas, creating a demand for talented individuals to help drive innovation and meet the country's energy needs.

The transition to renewable energy is expected to create thousands of new jobs, especially in areas like offshore wind, with strong growth potential over the coming decades.

The UK is home to the largest offshore wind farm in the world (currently Hornsea, but will be overtaken by Dogger Bank once operational), and it's forecast that by 2030 there will be 104,401 jobs in offshore wind in the UK. [6]

Offshore oil and gas also continue to play a major role and will do so until at least 2050, with thousands of jobs still available in exploration, production, and decommissioning. [7]

75% of the UK's total energy will still be derived from oil and gas and by 2030 [7] and between 60-87,000 jobs will still be needed in oil and gas. [8]

Facts and figures

- 90% of the skills in oil and gas are transferable into the other energy sectors such as wind, carbon capture and storage & hydrogen. [1]
- In 2023, the sector added around £25bn to the UK economy. [2]
- The equivalent of 50% of Scotland's total energy demand (electricity, heat and transport) to be supplied by renewable sources by 2030. [3]

- The UK oil and gas sector is committed to a net zero North Sea, with tough emission reduction targets of 50% by 2030 and 90% by 2040. [3]
- By 2025, Opito, the skills body for the energy industry, estimate that there'll be 4,500 new people employed in roles that don't even exist today. [4]

Want to find out more?

The My Energy Future website allows you to find out about the energy industry, explore careers and hear from young Energy Influencers.

Sources

1 New skills passport tool being delivered to support an integrated skills landscape, 17 October 2024, OEUK

2 Key Facts - offshore energy in numbers, OEUK (October 2024)

3 Energy transition opportunities in Scotland, Scottish Development International (October 2024)

4 My Energy Future website (October 2024)

5 Sectoral Skills Assessment: Energy, October 2024, Skills Development Scotland

6 Offshore Wind Skills Intelligence Report, June 2023, Offshore Wind Industry Council

7 OEUK (Offshore Energies UK) Economy and People Report 2024

8 Powering up the Workforce: The future of the UK offshore energy workforce, September 2023, RGU Energy Transition Institute

Content for this career area and job profiles created in partnership with OEUK and its employer members.