RENEWABLE ENERGY ENGINEER

Energy engineers work on the research, design and construction of power generation plants, and may be involved in drilling for gas and oil.

Entry requirements

You'll need a degree in engineering or a related science subject, like:

- mining or petroleum engineering
- environmental technology
- energy engineering
- earth sciences
- environmental engineering
- renewable or sustainable energy
- electrical engineering
- chemical engineering

You may need to have, or be working towards, a postgraduate qualification. This should be related to the area you wish to work in, like an MSc in renewable energy engineering.

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Skills required

You'll need:

- problem-solving ability
- excellent mathematical and computer skills
- the ability to manage projects, budgets and people
- communication and teamworking skills

What you'll do

You will work on gas and oil extraction and producing energy from renewable or sustainable sources, like:

- hydro – water
- solar – sunlight
- biomass – plants or plant materials
- wind power

Day to Day Tasks

Your day-to-day tasks may include:

- researching and designing new generating sites
- deciding on the best locations for sites
- planning and overseeing production programmes for sites
- managing and coordinating teams of technicians or site workers
- designing and selecting equipment
- meeting environmental standards, like carbon reduction targets
- finding the most cost efficient and productive processes
- carrying out laboratory experiments

- converting experiments into large-scale industrial processes
- working with geologists, geophysicists and specialist contractors
- managing projects and budgets

Salary Guide
Starter: £20,000 to £30,000
Experienced: £35,000 to £60,000
Highly Experienced: £80,000 (senior energy engineer)

Working hours, Patterns and Environment
You'll work 40 hours per week in office-based design or research jobs. If you work on a site like an offshore wind farm or drilling platform, you may work on a shift basis, including nights and weekends.

If you work onshore, it's usually in offices and laboratories with visits out to sites. Some jobs may involve international travel and long stays away from home.

Career path and progression
With experience, you could move into planning or policy development.