

Renewable Energy Engineer

Renewable energy engineers work on the production of energy from renewable or sustainable sources, including wind, solar and hydro or marine power. They research and develop new machinery and equipment, production processes and ways to minimise impact on the environment.

The Work

You could be:

- working out the technical and economic aspects of new renewable energy sites, including wind farms, solar installations and hydro or marine power
- carrying out site and ground condition inspections for new and existing sites
- using computer modelling software to produce detailed designs and energy production estimates
- ensuring that the installation and running of renewable energy sites meets environmental laws
- preparing project plans, schedules of work and cost estimates
- managing the integration of the renewable energy produced into existing systems
- testing equipment and processes in a lab to make sure they are suitable for wide scale use
- writing and presenting technical reports
- liaising with energy providers, contractors and other engineering and science professionals.

Pay

The figures below are only a guide. Salaries may vary, depending on:

- where you work
- the size of company or organisation you work for
- the demand for the job.

Starting salaries for renewable energy engineers tend to be in the range of £25,000 to £30,000 a year, rising to around £45,000 with experience. Senior level engineers may earn up to around £65,000 or more. Many employers offer packages such as private healthcare, pension, bonus schemes and relocation packages.

Conditions

- You work from an office, laboratory or on site.
- You usually work a 40-hour week, but may have to work overtime, depending on the demands of the project you are working on.
- You work as part of a team, but sometimes spend time working alone.
- You might spend some time away from home, possibly abroad.
- You will have to wear protective clothing such as a hard hat, safety boots and overalls when you are visiting sites.

Getting In

- You usually need a degree (SCQF Level 9-10) in an engineering discipline, such as electrical, chemical, environmental or energy. Some Scottish universities offer engineering degrees that include subjects in renewable or sustainable energy. A science subject is also relevant.
- Degree entry requirements are usually 4-5 Highers including Maths, Physics and a technological subject.
- If you have a good honours degree (SCQF Level 10) in a relevant subject, you can take a postgraduate qualification (SCQF Level 11).
- A number of Scottish universities offer full and part time postgraduate MSc courses covering renewable energy subjects.
- A driving licence is useful and in some cases may be essential.

What Does It Take

You need to have:

- problem solving and analytical skills
- good science and maths ability
- IT skills, including computer-aided design software
- excellent attention to detail
- good communication and negotiation skills
- an interest in science, technology and the environment.

You need to be able to:

- manage projects, budgets and deadlines
- work as part of a team and independently on your own
- understand and explain complex and technical data.

Training

- After gaining your degree and some further training and practical experience with an employer, you can register with the Engineering Council as an Incorporated Engineer (IEng) or Chartered Engineer (CEng).
- For IEng you need to have either a recognised Bachelor's degree (SCQF Level 9) or a recognised HNC (SCQF Level 7) or HND (SCQF Level 8) plus further study to Bachelor's degree level.
- For CEng you need to have a recognised Bachelor's degree with Honours (SCQF Level 10) plus a recognised Masters degree (or equivalent), or a recognised integrated Master of Engineering (MEng) degree (SCQF Level 11).
- If you do not have the above qualifications, you may still be able to achieve IEng or CEng by other approved routes. You can check these alternative routes with Engineering Council or with the appropriate professional engineering institution.
- You may be able to study for a postgraduate course in sustainable energy part time while you work.
- You must keep up to date with changes in a fast moving industry.

Getting On

- You might move on to become a project or site manager.
- If you are flexible about moving around the country your chances of promotion are good.

- You might become a self-employed consultant, providing specialist advice services to organisations.
- You could move into teaching and academic research in colleges and universities.
- There may be opportunities to work abroad.
- As a member of a professional engineering body, you have to complete a certain number of hours continuing professional development (CPD) each year.

More Information

The Engineering Council sets and maintains the standards of the engineering profession in the UK.

The [Tomorrow's Engineers](#) website has more information on careers in engineering.

Contacts

Energy Institute

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Scottish Renewables Forum

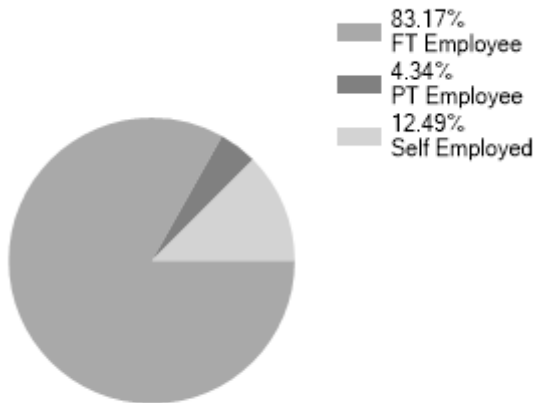
Tel: 0141 353 4980

Email: info@scottishrenewables.com

Website: www.scottishrenewables.com

Statistics

Employment Status UK %

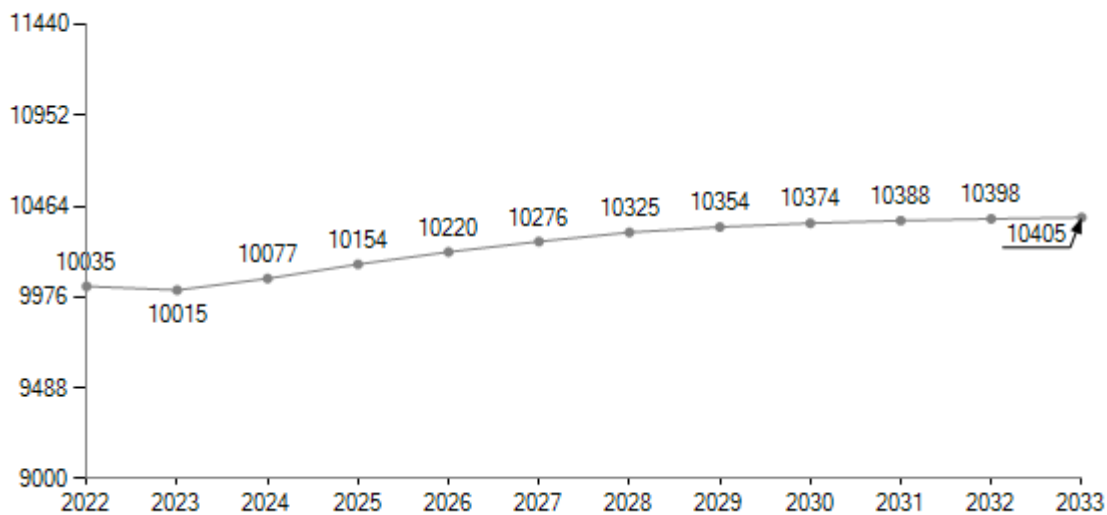


Past Unemployment - Scotland

No Claimant statistics available for Scotland.

LMI data powered by [LMI for All](#)

Predicted Employment in Scotland



LMI data powered by [Lightcast](#)