

Labour Market Intelligence Series

Your guide to agriculture, environmental and animal care



Overview:

Environmental technology branches across several different fields: environmental science, green chemistry, environmental monitoring and electronic devices, model and conserve the natural environment and resources, to curb the negative impacts of human involvement. This sector also focusses on developing sustainable energy generation and low carbon technologies, with the aim of reducing carbon dioxide emissions.

Sustainable energy generation and low carbon technologies are currently being developed and used in some of the following: generating power (offshore and onshore wind farms, biomass power generation, carbon capture and storage), micro-generation (fitting solar panels and domestic wind turbines to homes), transport (hybrid buses and electric, hybrid or hydrogen cars), recycling and preserving the natural environment.

Future growth:

Environmental technologies are one of the most important areas of opportunity for the UK's future economic growth. Converting the UK economy to low carbon presents huge employment opportunities, with as many as 1.3 million people predicted to be working in 'green jobs' by 2017.

Currently close to 900,000 people are employed in the sector, including people working within the supply chain. Many of the jobs are in renewable energy industries, but around half are in emerging low carbon areas such as alternative fuels and low carbon design and development.

Current estimates suggest that by 2015 the low carbon and green manufacturing sector could be worth as much as £150 billion in the UK.

Advertised positions and salaries:

Land Based Engineer

– provide technical advice on installing and testing equipment on site.

Earn from £20,000 up to £35,000

Water Engineer

– create solutions and designs for infrastructure projects.

Earn from £20,000 up to £32,000

Commercial Energy Assessor

– measure carbon emissions and calculate carbon offsetting.

Earn from £25,000, up to £30,000+

Ecologist

– assess ecosystems and issue recommendations.

Earn from £17,000 up to £30,000

Recycling Officer

– plan and develop environmental and waste reduction policy and run local recycling schemes.

Earn from 19,000 up to £45,000

Waste Management Officer

– manage the collection and disposal of waste from homes and businesses.

Earn from £22,000 to £25,000 and up to £45,000 for senior roles

Wind Turbine Technician

– perform routine maintenance on wind turbine mechanical, electrical, gear boxes and hydraulic systems.

Earn from £20,000 up to £30,000

<https://www.prospects.ac.uk/job-profiles/browse-sector>



Skills shortages/ demands:

The sector is projected to grow substantially in the next decade as the need to find sustainable alternatives to fossil fuels becomes more urgent. Developing and deploying low carbon technologies is key to meeting the UK's long term targets on climate change, with the UK government setting an ambitious target of reducing carbon emissions by 80% by the year 2050.

Skills, qualities and qualifications:

Being innovative, a good communicator and a problem solver, are just some of the skills needed within this sector. Employers are looking for people who can work well in a team, as well as good subject knowledge of the sciences and maths. Knowledge and experience related to engineering and design and technology can also be very useful.

Apprenticeships

Types of Apprenticeships

Energy assessment and energy conservation are just a few different apprenticeships available in environmental technologies. You might be familiar with some of the choices, but there are plenty of others that might just surprise you.

Levels of Apprenticeship

- Level 2 - equivalent to GCSE's
- Level 3 - equivalent to A Levels/Highers
- Level 4 - equivalent to Foundation Degree/Advanced Highers

An apprenticeship to Level 2 takes two years to complete. Apprentices may continue for an additional year to achieve Level 3.

A Level 4 is for people who want to progress into Technical, Design and Management careers.

Further information on Apprenticeships visit:
<https://workwiltshire.co.uk/apprenticeships/>

Search and apply for apprenticeships:
www.gov.uk/apply-apprenticeship

Apprenticeships in environmental technologies include but not limited to:

www.apprenticeships.gov.uk/

Golf Green keeper L2

Arborist L2

Forest Operative L2

Horticulture and Landscape Supervisor L3

Junior Energy Manager L3

For a full list visit:
www.gov.uk/government/collections/apprenticeship-standards#apprenticeship-standards-approved-for-delivery



Courses related to sector:

Level 2/Btec/GCSE

Science
Maths

Level 3/A Levels

Environmental Science
Physics
Chemistry
Maths

Level 4/HE

Electrical engineering and renewable energy
(City College Plymouth, Plymouth University)
Renewable Energy Technologies with Science Gateway
(Cornwall College)
Renewable Energy (Southampton Solent University)
Electrical Power Engineering (University of Bath)
Applied Agriculture (University Centre Hartpury)



Views from the sector:

“Since 2013, more renewable than fossil fuel-fired generating capacity has been built worldwide. We anticipate further superior growth in investment in wind and solar farms. As part of EU's ambitious Paris pledges and transition to a low carbon economy, the EU renewable energy target will be increased to 27% of all energy by 2030, up from 20% in 2020. Continuing cost reductions (with renewables increasingly able to compete with fossil fuel energy without subsidies) will alleviate concerns over affordability.”

Bruce Jenkyn-Jones, head of listed equities at Impax Asset Management

www.investmentweek.co.uk/investment-week/analysis/2440883/which-sectors-could-be-impacted-by-the-paris-climate-agreement

Wiltshire employers:

The map below shows some of the environmental technology employers in Wiltshire. This is not a definitive list and there are other employers across the county.



- | | |
|------------------------------|-------------------------------|
| 1 Innovate UK | 8 Greenoke |
| 2 Johnson Matthey Fuel Cells | 9 Mallaby Biogas (Malmesbury) |
| 3 Advanced Plasma Power | 11 Wessex Biomass Ltd |
| 4 Recycling Technologies Ltd | 12 Smartech Energy |
| 5 Hills Group Limited | 13 RGV Engineering Ltd |
| 6 Good Energy | |
| 7 IDDEA Ltd | |

Where to study:

City College Plymouth, Cornwall College and University of Exeter offer renewable energy courses.

Other local universities may also offer related courses, check websites and prospectuses for details.

For more information, follow these useful links:

www.environmentalsectorjobs.co.uk/jobsbytitle.php
www.greenjobs.co.uk/jobboard/cands/searchCriteria.asp
www.prospects.ac.uk/job-profiles/energy-engineer
www.renewableuk.com/

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