

Energy

Energy Sector Overview

The **Energy Sector** relates to the production and supply of energy. **Renewable energy** is generally defined as energy that comes from resources which are naturally replenished on a human timescale such as sunlight, wind, rain, tides, and waves. Renewable energy replaces conventional fuels in four distinct areas, electricity generation, air and water heating/cooling, motor fuels, and rural (off-grid) energy services.

The Energy Sector is very closely linked with engineering, manufacturing and ports & logistic sectors.



5% of employment in the Humber is in the energy sector

Useful subjects

- Maths
- Engineering
- Science
- Technology

Did you know?

- 3 of the world's largest wind farms are on our doorstep and form some of the largest engineering projects in the world attracting between £75 -£100 billion
- Ørsted is the world's leading offshore wind developer, investing £6bn in offshore wind in the Humber
- Once completed the Humber Gas Tunnel will carry 1/5 of the UK's gas supply to millions of homes
- The Grimsby, Sheffield & Hull triangle is the largest energy sector in the UK
- 1/3 of the UK's coal and sustainable biomass comes in through the Humber to make energy
- The Humber is No. 1 for biofuel production which fuels our power stations to production 17% of the UK's electricity
- The £200m ENERGY WORKS plant in Hull is the largest privately-funded power stations of its kind; once operational it will power 43,000 homes

For further information visit:

- nationalcareers.service.gov.uk
- www.lmihumber.co.uk
- www.careersyandh.co.uk
- www.bridgingthegaphumber.co.uk
- www.apprenticeships.gov.uk
- www.allaboutcareers.com
- www.euskills.org.uk
- www.greenporthull.co.uk
- www.deliveringyourfuture.co.uk
- Look in your local newspapers
- Pop in to your local Job Centre
- Attend events and seminars
- Check out YouTube
- Check out Social Media
- And talk to family and friends

Examples of Key Employers in the Humber

SIEMENS Gamesa
RENEWABLE ENERGY

SPENCER
British Engineering

able
www.ableuk.com

ecotricity

SMart Wind

Ørsted

GEV
WIND POWER

BOSTONENERGY

Will there be opportunities available?

- Labour demand across the energy and infrastructure sectors will be significant, totalling around 760,000 by 2024. This includes 160,000 new jobs and replacing 600,000 people due to retirements
- There will be a total labour demand of 8.7 million jobs in the UK by 2024
- The offshore wind sector will need to compete against other desirable infrastructure sectors to acquire the 36,000 people that will need to be employed by 2032
- Over the coming years, additional projects will enter the project pipeline, meaning there is likely to be a continued need for services, people and skills during both the construction and operation phases of an offshore wind farm's lifespan
- The scale of our energy industry means demand is high for engineering support and top talent

Good to know:

Emerging roles within this sector offer exciting jobs with good salary packages. Many require a science, technology, engineering or maths base.

Planning ahead...

£16,000+

Entry Level

Involves building basic knowledge and skills and is not geared towards specific occupations

Traineeship
Study Programme
Entry level certificate
Entry level Skills for Life
Entry level award, certificate and diploma
Entry level Functional Skills
Entry level Foundation Learning
English for speakers of other languages

Level 1

Involves activities which mostly relate to everyday situations and may be linked to job competence

GCSE (grades D-G or 1-3)
Traineeship
Study Programme
Key Skills level 1
NVQ level 1
Skills for Life level 1
Foundation diploma
BTEC award, certificate and diploma level 1
Foundation Learning level 1
Functional Skills level 1
OCR National

Level 2

Involves building knowledge and or skills in relation to an area of work or subject area appropriate for many job roles

GCSE (grades A*-C or 4-9)
Apprenticeship
Key Skills level 2
NVQ level 2
Skills for Life level 2
Higher diploma
BTEC award, certificate and diploma level 2
Functional Skills level 2

Level 3

Involves obtaining knowledge and skills. It is appropriate for people wishing to go to university, working on their own or in some areas, supervising others in their field of work

AS and A level
T Level
Advanced Apprenticeship
Advanced Extension Award
Cambridge International award
International Baccalaureate
Key Skills level 3
NVQ level 3
Advanced diploma
Progression diploma
BTEC award, certificate and diploma level 3
BTEC National
OCR National
Cambridge National

Level 4

Appropriate for people working in technical and professional jobs, and/or managing and developing others

Certificate of higher education
Key Skills level 4
NVQ level 4
BTEC Professional award, certificate and diploma level 4
HNC

Level 5

Appropriate for people working as higher grade technicians, professionals or managers

HND
NVQ level 4
Higher Level Apprenticeship
Higher diploma
BTEC Professional award, certificate and diploma level 5
HNC
Diploma of higher education
Diploma of further education
Foundation degree

Level 6

Involves achievement of high level professional knowledge and is appropriate for people working as knowledge based professionals or in professional management positions

NVQ level 4
Higher Level Apprenticeship
BTEC Advanced Professional award, certificate and diploma level 6
Bachelor's degree
Graduate certificate
Graduate diploma

Level 7

Involves achievement of high level professional knowledge and is appropriate for people working as knowledge based professionals or in professional management positions

BTEC Advanced Professional award, certificate and diploma level 7
Fellowship and fellowship diploma
Postgraduate certificate
Postgraduate diploma
NVQ level 5
Degree Level Apprenticeship
BTEC Advanced Professional award, certificate and diploma level 7
Master's degree

Level 8

Involves achievement of high level professional knowledge and is appropriate for people working as knowledge based professionals or in professional management positions

NVQs level 5
Vocational qualifications level 8
Doctorate
Degree Level Apprenticeship

Warehouse
Operative

Assembly
Operative

Finishing
Operative

Technician

Driver

Installer

Packing
Operative

Cable Jointer

Scaffolder

Wind Turbine
Engineer
Apprentice

Service Operative

Crane Operator

Electrician

Heat Pump
Installer

Fabrication
Engineer

Mechanical
Engineer

Welder

CNC Machinist

Sales Manager

Marine
Coordinator

Maintenance
Technician

Electrical/
Instrumentation
Technician

Pipe Fitter

Solar Technician

Health & Safety
Adviser

Production
Engineer

Graphic Design
Assistant

Account Manager

Rigger

Fire Safety
Technician

Industrial
Engineer

Operations &
Maintenance
Manager

Project Manager

Hydrologist

Test Engineer

Marine Engineer

Civil Engineer

Renewable
Energy Designer

Project Director

Oceanographer

Geophysicist

Dock Master

Salaries starting from

£30,000+ £25,000+

£20,000+

£18,000+