

Sheringham Shoal

by Scira Offshore Energy

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Career Pathways in Offshore Wind

Scira Offshore Energy is commencing operation of the Sheringham Shoal wind farm sited 20km north of Sheringham. The wind farm consists of 88 x 3,6 MW turbines, each around 132 metres high, and covering an area of 35 square kilometres. It will produce about 1,1 TWh of energy every year, enough electricity to power around 220,000 British homes. A local organisation has been established to ensure that the wind farm operates to its maximum capacity. This organisation combines Scira employees and Siemens employees, who will provide the offshore maintenance service for the 88 Siemens 3.6 MW turbines. The permanent base for the operation is Wells-next-the-Sea.

The operation and maintenance of an offshore wind farm requires many different skills and competences, and consequently a variety of different rewarding jobs are available to people prepared to study for qualifications and work hard as part of a team.

Each person employed has a vital part to play in operation and maintenance of this complex engineering plant, and ultimately in the supply of renewable energy to 220,000 British homes.



Technical Jobs

Wind Turbine Technician

An offshore wind farm is a large power plant covering a huge area with many individual pieces of equipment, all needing routine servicing and maintenance work. Daily visits from a team of trained wind turbine technicians are essential, to perform planned maintenance including replacing oil filters and greasing bearings, or testing the wind turbine's torque using torque wrenches. The technician will also inspect equipment to diagnose faults, and resolve electrical, mechanical, and hydraulic malfunctions. Early morning transfers by personnel transfer vessel for a day of planned maintenance, mean that the technician has to be prepared to work in small teams in confined spaces or at height for 12 hour shifts, usually four days on, four days off. The job requires a valid offshore medical and considerable training, including the BOSIET (Basic Offshore Survival Induction and Emergency Training) or equivalent. The work also requires approved Work and Rescue from Height certification.

Pathway: You must gain at least 5 GCSEs at grade C (including Maths, English and Science) before studying for an HNC or City and Guilds in Mechanical / Electrical Engineering.

Mechanical Engineer

An offshore wind farm has many mechanical elements operating in extreme conditions, not least the heavy rotating machinery which sits around 80 metres high. Qualified Mechanical Engineers are therefore in demand to plan and coordinate maintenance and inspection of the wind farm, often through management of specialist contractors. Through the role as technical expert on all heavy mechanical plant and equipment the Mechanical Engineer is responsible for optimising production the wind farm, by ensuring plant integrity and availability. This person will also lead in the design, project management and commissioning of minor plant modifications.

Pathway: You must gain at least 5-7 GCSEs at grade C (including Maths, English, Science and another technical subject). This will allow you to study A'Levels in Maths and Science or a BTEC in Engineering before completing a degree in Mechanical Engineering.



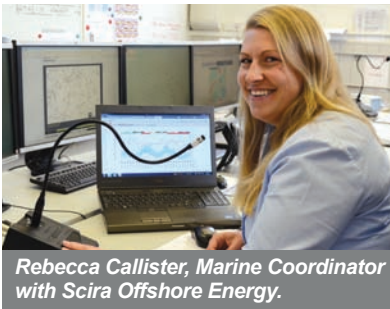
Colin Galer, Mechanical Engineer with Scira Offshore Energy.

Electrical Engineer

Operating a large power generating plant and transmission system means that qualified electrical engineers are essential to running a wind farm. Responsible for HV (high voltage) or LV (low voltage) apparatus eg. motors, onshore and offshore cable, transformers, switchgear, the Electrical Engineer is trained to take the role of SAP (Senior Authorised Person) who can perform isolations and issue work permits. SAP training is provided in house. The Electrical Engineer is responsible for ensuring compliance with the Electrical Safety Rules and Safety Management System, together with the Control Room which continuously monitors the wind farm.

Pathway: You must gain at least 5-7 GCSEs at grade C (including Maths, English, Science and another technical subject). This will allow you to study A'Levels in Maths and Science or a BTEC in Engineering before completing a degree in Electrical Engineering

Supporting Jobs



Marine Coordinator

Marine Coordinators are responsible for the safe coordination and movement of personnel, vessels and equipment to and from the offshore wind farm. They plan, coordinate and supervise activities related to personnel and parts transfer by vessels and vehicles. From the high tech operations rooms, they will monitor all vessel movements, weather changes and any other factors which may affect the operation.

Pathway: You must gain at least 5 GCSEs at grade C (including Maths, English and Science). Practical understanding will be essential so marine experience is useful, and you must have a VHF radio certificate.

Maintenance Planner

Maintenance Planners have an important role in planning and organising regular and preventive maintenance, reviewing work order backlogs daily to identify high priority work, and developing work packages in advance. They manage the inventory spare parts and consumable materials, as well as assuring the availability of special tools and equipment; and scheduling crew.

Pathway: You must gain at least 5 GCSEs at grade C (including Maths, English and Science) before studying for a general qualification in mechanical or electrical engineering.



HSE Coordinator

It is essential to have a strong focus on Health, Safety & Environment to enable safe and effective management of work offshore, and onshore. The HSE Coordinator will ensure full compliance with all relevant HSE legislation, codes of practice, guidance and industry standards. This also means ensuring that workers and subcontractors who are working on behalf of the company are made aware of HSE procedures and standards; and monitor and ensure that their safety performance is in compliance with these standards. Regular appraisal and modification of safety method statements and risk evaluations in connection with planned project work on site is necessary, and the HSE Coordinator will participate in the regular work permit application and review meetings.

Pathway: You must gain at least 5 GCSEs at grade C (including Maths, English and Science) before studying a NEBOSH general certificate, then an IOSH Diploma, NEBOSH Diploma or equivalent. Ability to demonstrate practical experience and understanding is useful.

Administration

As with any business there are various administrative positions required to support the operation of an offshore wind farm. These may include positions in Finance and Control, Human Resources and general clerical and administration roles.

For further information

Most of the jobs described above will require some previous work experience before entry. However the aim of this fact sheet is to give you an idea of what educational choices you should make to qualify for these jobs.

More detailed information on typical positions with a wind farm operator, the pathways and the personal competences required is available from Scira Offshore Energy Limited.
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