

Preparing Young People for a Career in Offshore Wind and Potash Mining

3rd November 2011

Feedback to Delegates

Frequently Asked Questions

1. What is the time scale for the major offshore wind farm projects?

There are a number of wind farm projects, developed during Rounds 1 and 2, already in operation around the coast of the UK.

However, these are dwarfed in terms of the scale, energy output and job creation potential, by the next generation of Round 3 wind farms. The two major projects off the Yorkshire Coast are Hornsea and Dogger Bank.

There are four different phases to the lifecycle of an offshore wind farm:

- Development and consenting
- Design and Manufacture
- Construction and Installation
- Operation and Maintenance

The Round 3 sites are currently at the development and consenting phase. The aim is to start construction and installation by 2015, with the sites being operational by 2020. They will have a lifespan of at least 25 years, at which time a decision would be made to decommission or repower.

2. What jobs will be created and when?

A significant amount of jobs will be created by the sector over the next 10 years. There are a range of forecasts of the amount of jobs that will be created. Key reports, which include employment forecasts are:

Oxford Economics Report

<http://www.oxfordeconomics.com/samples/vestas.pdf>

Working for a Green Britain Vol 2

<http://www.euskills.co.uk/download.php?id=1319>

UK Commission for Employment and Skills

<http://www.ukces.org.uk/publications/er34-maximising-employment-skills-offshore-wind>

NSAP and Energy & Utility Skills Ltd

<http://www.power.nsacademy.co.uk/services/research>

Working for a Green Britain forecasts that it will be likely that 30,000 jobs will be created by the UK Offshore Wind Industry over the next 10 years [with the potential for up to 42,000]. Including indirect jobs the figure could be as high as 70,000.

Most of these jobs will be in the design and manufacture and operation and maintenance phases, requiring engineers and technicians.

However, there will be a variety of jobs over the lifecycle of the Round 3 projects. See the attached document 'Jobs in the Offshore Wind Industry' incorporating key slides from the presentations [courtesy of The Crown Estate]. This gives an idea of the roles required during each phase of the supply chain, as does The Crown Estate 'Your career in offshore wind energy' guide.

It is also important to stress that there are jobs now in the sector. Good places to look include:

Renewable UK – www.bwea.com/jobs/index.html

National Skills Academy for Power – www.thinkpowersector.co.uk

3. Where will the jobs be created?

The Yorkshire and Humber region, Teesside and Tyne and Wear, have a number of large ports and harbours that can and will be utilised. There will be services required for manufacture, construction, operations and control, vessel maintenance, grid connections and transportation. These services will be spread along the coast in the most suitable locations. Local authorities across this area are working collaboratively to develop a joint offer to the industry. There will be also be indirect jobs through the supply chain throughout Yorkshire and the North East.

Approximately 1/4 to 1/3 of the UK potential offshore energy generation capacity is within operational reach of Whitby, where the skills event took place. It's reasonable to estimate the employment potential at around 3/4000 jobs [within reach of Whitby] in operations and maintenance related activity if all 14GW of generation proposed for the Hornsea and Dogger Bank wind farms is deployed.

4. What qualifications will people require for these roles?

It is clear from the presentations, and looking The Crown Estate career guide and the jobs in the sector document, that there will be [and currently are] a wide variety of jobs and careers applicable to the offshore wind industry.

The majority of roles, particularly those directly focussed on the installation, commissioning, maintenance and operations aspects of the industry, will require qualifications in STEM subjects. See the 'Stem applications on offshore wind' document attached for details.

Companies are requesting good engineering and science backgrounds at level 3 and degree level. Whilst there are qualifications and training courses which are required to work in the wind industry, generally speaking these are included once the position has been gained.

Specific qualifications in Wind Turbine operations and maintenance do exist and qualifications covering installation and commissioning are being created.

The new wind turbine technician apprenticeship is an example of this.

Working at height, offshore appropriate first aid, sea survival courses all exist, but it is important that people do not invest speculatively in these courses. People should always check with prospective employers as to which courses would improve their chances of securing employment and which the employer will provide once employed.

The Renewables Training Network has been set up to identify, develop and deliver the transition training required to help people to use their transferable skills to move into the industry.

A good engineering apprenticeship, a STEM degree, and other related training are applicable to those wanting to work in the industry. However the message from the Skills Academy for Power is clear. It is not qualifications that get jobs in the industry, it is people. The same rules apply to renewables as any other industry. Do your research, know what the job entails, highlight your transferable skills and apply directly to the companies. The Think Power website is a good place to start research and has a lot of the links required.

5. How should we design our curriculum offer?

School age students need a good background in the STEM subjects, be made aware of the potential career opportunities in offshore wind, the variety of roles, and the breadth of STEM applications in the industry.

The message to Further and Higher Education is not to specialise and develop a course that the industry doesn't recognise or want. It is preferable to continue with the generic engineering offer, and to integrate offshore wind industry specific elements into this. Employers want to see the issues on renewable energy taught within the main curriculum.

The industry will provide turbine specific training and key health and safety requirements.

If you are interested in delivering transitional training as part of the Renewables Training Network, you need to contact the National Skills Academy for Power. NSAP are advocating a collaborative approach, with providers concentrating on their strengths and developing a coherent region-wide offer.

Rather than designing a new provision offer to support people to enter the industry, the challenge is really about increasing the demand for what you already provide.

6. How can we increase demand for this provision?

Whilst not all the roles we discussed require engineering skills there will be a significant number requiring these. Attracting young people at school to do the STEM subjects and then to engineering at level 3 and above will be one thing we can do to attract jobs to the area.

We need to have a collaborative effort to help young people to make an informed choice to study in this area. A number of suggestions were made at the event of how the industry, and other stakeholders, can help. These included:

- Providing resources to schools and colleges to help expose youngsters to the industry
- Develop a schools programme
- Create engineering / off shore wind champions at each educational institution
- Events, workshops and resources targeted at careers advisors so they understand the opportunities better.
- Blogs, video diaries and career maps would all help advisers to get the message out.
- Newsletters focussed on the region (in this case the progress of Dogger Bank and Hornsea)
- Events to help the decision makers (parents and carers) as well as the young people
- Use young people to champion engineering and the opportunities in offshore wind
- A regional / national campaign to promote engineering as a career choice, much like a similar campaign there was around teaching
- NSAP and the industry are discussing how to better communicate careers opportunities and developments through online resources

Some of these ideas can be initiated at a local level with minimum resources. Other initiatives would need more significant support from the industry and central Government. All the main issues, themes and suggestions for the event will be fed into the East Coast Wind Skills Group.

7. What current or upcoming initiatives can providers get involved in?

- East Coast Wind Skills planning network

This is an industry led skills working group tasked with articulating the offshore wind related skills needs of the sector.

- East Coast Wind Skills delivery network

This group consisting of providers will focus on developing collaborative solutions to the wind related skills issues identified by the planning group. Contact NSAP if you would like to be kept informed on the progress and outcomes of either of these groups.

- Renewables Training Network

This is another NSAP led initiative, regarding the identification and provision of transition training to help people with transferable skills with entry into the renewables industries.

- Work force planning across the supply chain

An NSAP led project to identify future skills requirements across the industry by identifying the current skillsets in the industry and looking at how these will develop and change as the industry grows.

- Talent Bank

An NSAP led initiative to support recruitment and training, by removing barriers for employers and working through local providers. The set up of

Talent Bank is being funded by the Growth and Innovation Fund. It is designed to resolve the issues cited by employers for delaying training or taking on apprentices.

- CTP forces resettlement

NSAP and the Career Transition Partnership are working for the MOD in helping forces personnel to match their experiences and competencies with industry opportunities.

- Smart Futures

SMart Futures is a four year programme, funded by Smartwind, to help raise awareness in Year 9 pupils of the opportunities presented by careers in Offshore Wind. It emphasises the importance of STEM subjects.

Year 1 of SMart Futures successfully engaged 2,000 students in 16 schools in and around the Humber region. As part of the project schools competed to name the first two wind farms in the Hornsea Zone. The winning names, chosen by South Axholme and Hessle schools, are “Heron Wind” and “Njord” respectively. Year 2 (of 4) of SMart Futures is already at an advanced stage with the next 14 schools already selected.

There is still an opportunity to get involved. Contact Mainstream Renewable Power if you are interested.

8. How can the education sector be kept up to date of developments?

NSAP are enhancing the renewables section of the Think Power website. The Crown Estate is working with them to make some of their excellent material available interactively. They are taking on board the comments from the event about the sorts of resources that would be useful to support education and will be talking to their employer members about how this could take place.

At the moment there is a broad UK focus to the information presented. A more regionally focussed approach is being developed. As part of this approach, a regional network is being created, starting with the delegates at the Whitby event. Members of the network will be able to receive updates of developments, and have the opportunity to link with the proposed provider network.

Key Contacts

- General questions or further information contact Matt Parsons at Scarborough Borough Council – matthew.parsons@scarborough.gov.uk, or phone 01723 383564.
- National Skills Academy for Power initiatives contact Rob Moore – Rob.Moore@power.nsacademy.co.uk
- Mainstream Renewable Power [lead on the SMart Futures project] contact Steve Clarke - Steve.Clarke@mainstreamrp.com