

# Oil & Gas diversification opportunities:

## Offshore Wind



Offshore wind is a growing market concentrated in the UK and Europe, where over 90% of the world's offshore wind farms have been built to date. There are high levels of synergy between the offshore wind and oil and gas supply chains, particularly in the areas of project management, array cables, substations, foundations, installation support, and operations & maintenance.

### Key Facts:

- Three Scottish offshore wind farms with a combined value of £3bn will begin construction in 2017.
- Scotland is a leading location for offshore wind test and demonstration. The world's first floating offshore wind farm, Hywind Scotland, begins construction in 2017.
- The UK is the world leader in offshore wind capacity, which is forecast to double from 5.1GW in 2016 to 10GW by 2020.
- Investment in UK offshore wind exceeded £10bn between 2010 and 2015. A further £18bn of investment is forecast between 2016 and 2020.
- The UK Government has committed to supporting a further 10GW of offshore wind projects between 2020 and 2030, subject to cost reduction.
- Europe is forecast to build around 25GW of offshore wind by the end of the decade, worth an estimated £60 billion in capital and operational expenditure over the next five years.
- Up to £210bn of global expenditure on offshore wind is forecast between 2016 and 2025.

## UK Opportunities

The offshore wind industry shares many similarities with oil and gas in how it develops, constructs, operates and maintains offshore assets. UK offshore wind projects present some of the most readily accessible opportunities for Scottish supply chain companies due to the industry's commitment to increasing the UK content of UK offshore wind farms. The industry is also firmly committed to cost reduction and is open to adopting new technologies and processes that can help bring down the cost of offshore wind energy to 'subsidy free' levels by the mid to late 2020s.

## International Opportunities

The higher tiers of the offshore wind supply chain operate at a European level, and a number of Scottish firms with UK project experience have gone on to secure contracts elsewhere in Europe. Germany is the largest offshore wind market next to the UK, with 3.2GW of operational projects as of 2016. The German Government has a target to double this capacity to 6.5GW in 2020, and to construct 15GW of projects by 2030. The Netherlands, France, Denmark and Belgium also have sizable pipelines of projects. China is the largest market outside of Europe, forecast to build 7-12GW of offshore wind by 2020, up from 1.1GW in 2016. The US and Japan also represent potential growth markets, but remain in the very early stages of development.

Discipline	Skills & Expertise Required
Project Management	Oil and gas companies are already offering skills in managing complex projects offshore.
Array Cables	Cable manufacture requires similar skills and equipment to oil and gas umbilical manufacture.
Substation Structures	Substations are typically one-off designs on a similar scale to oil and gas platforms.
Turbine Foundations	Fabrication skills from oil and gas can be harnessed to produce serially manufactured structures.
Secondary Steelwork	This is an accessible market for companies without the capacity for foundation manufacture.
Cable Installation	The complexity of offshore wind contracts presents significant but not insurmountable new challenges for companies with oil and gas experience.
Installation Equipment	The transition from oil and gas equipment supply has been made by a significant number of companies, for example in pile and cable handling equipment, and in trenching and burial tools.
Installation Support	The experience of working offshore can bring real benefits to offshore wind in areas such as diving, ROV services and marine consultancy.
Maintenance & Inspection	Oil and gas experience of offshore logistics can shape evolving strategies in offshore wind.

## Market Entry

Offshore wind is a highly competitive but rapidly evolving market, where many of the technologies and processes are still being optimised. Oil and gas companies can successfully enter the market, but must demonstrate capability and understand the barriers to entry so that mitigation strategies can be developed. New market entrants should consider:

- Offer cost-competitive or innovative solutions in order to displace the existing supply chain;
- Target framework opportunities across multiple projects;
- Be cognisant of the differences between oil and gas and offshore wind business practices and contracting models; and
- Demonstrating their long-term commitment to offshore wind customers.

## Further Information & Support

Scottish Enterprise (SE) has developed a range of information and support to help companies considering opportunities in offshore wind. This includes a detailed guide to offshore wind diversification opportunities and an offshore renewables supply chain directory. SE also runs regular meet the buyer events and offers a one-to-one consultancy support service provided by offshore wind technical and commercial experts. Further information is available from: **[www.scottish-enterprise.com/offshorewindguide](http://www.scottish-enterprise.com/offshorewindguide)**

Additional information on offshore wind opportunities is available from:

- Offshore Wind Scotland:  
**[www.offshorewindscotland.org.uk](http://www.offshorewindscotland.org.uk)**
- The Crown Estate:  
**[www.thecrownestate.co.uk](http://www.thecrownestate.co.uk)**