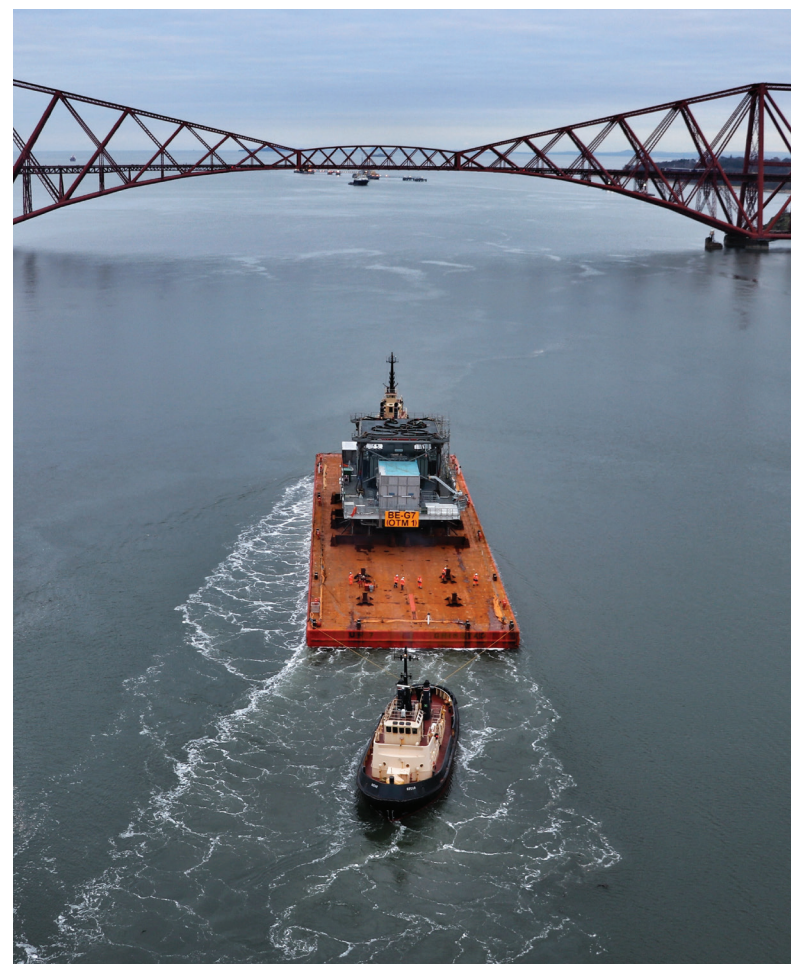




A SEA OF OPPORTUNITY

UK growth and investment in Offshore Wind

June 2018



WELCOME FROM THE SECTOR CHAMPION FOR OFFSHORE WIND



The potential for offshore wind to deliver secure, low carbon electricity and to lead the clean growth revolution – generating jobs, export opportunities and billions of pounds for the UK economy – is truly enormous.

The UK has the largest installed capacity of offshore wind in the world. Costs have fallen and offshore wind is now cost competitive with other forms of clean energy generation. This, coupled with our world leading academic and research expertise, means that offshore wind is now on track to be the backbone of our future energy supply.

Julia Brown, The Baroness Brown of Cambridge DBE FREng FRS

FOREWORD FROM THE CO-CHAIR OF THE OFFSHORE WIND INDUSTRY COUNCIL



As an industry, we have a vision: working closely with the UK Government, we aim to deliver one third of the country's total electricity needs by 2030, powering not just our homes and businesses but also our electric vehicles and heating.

And with that vision comes a huge economic opportunity to build an industry that will not only support thousands of jobs throughout the UK, often in coastal communities where the need is greatest, but also generate billions of pounds for the UK economy from exports.

A commitment to regular auctions will give the supply chain visibility of the market and the confidence to invest in the future of the UK. We will drive innovation within our Clusters and work with our stakeholders, including local and regional development agencies, to deliver a future offshore wind industry in the UK that delivers its full potential.

Benj Sykes, Offshore Wind Industry Council Co-Chair

HOW WILL YOU BENEFIT FROM OFFSHORE WIND?



Supporting UK jobs and growth

To achieve all this won't be easy. We are working with Martin Whitmarsh, former CEO of Maclaren, to find new ways to work with the UK supply chain to drive up productivity and deliver a globally competitive industry, as well as bring new innovative players into the sector.

Many of these companies may not even exist today, or they may be working in different sectors. We will help to identify how new products and services can be developed to meet the growing needs of the offshore wind supply chain.

An Offshore Wind Sector Deal will help to improve the productivity of the UK supply chain, increasing UK competitiveness in an increasingly global sector.



More high skilled jobs where they're most needed

By 2030, we want the offshore wind sector to be a diverse, inclusive industry, creating skilled well paid jobs and, following a Sector Deal, employing nearly three times as many people as today. The nature of our industry means that the majority of these jobs will be in coastal communities where there is the greatest need for economic development.

We will need manufacturing of some of the key equipment – such as towers, cables or blades more than 100m long – but we also need data and mechanical engineers, materials and computer scientists, robot designers and operators, not to mention experts to operate and maintain wind farms far out at sea.



Affordable electricity

As the scale of the wind farms around our coasts has grown, and we have gained experience of operating in the often hostile marine environment, so the costs of capturing the energy from offshore wind have fallen. Prices have halved in just the past two years, making offshore wind the cheapest form of large scale, clean energy.

As part of a Sector Deal with Government we will accelerate new solutions to the cost effective integration into the system of large scale renewables such as offshore wind. And we're confident that we can continue to drive down costs to consumers as we decarbonise our economy.



Source: Construction trainees on site



An Industry underpinned by Innovation

Innovation lies at the heart of our Sector Deal proposal. Since the first industrial revolution, we have been a nation of technology pioneers, and the green industrial revolution is no different. From the first cloth-sailed wind turbine to the huge scale offshore wind turbines of today, we have been driven forward by innovation in engineering and design.

The pace of that innovation never slows. We are developing artificial intelligence (AI), robots and drones to better and more safely manage our wind farms, new designs of turbines that can be lighter and more efficient, floating platforms to carry huge turbines in the deepest waters and electrical infrastructure to better deliver the power to where it's needed.

All of this and so much more, delivering cleaner, more affordable power, jobs, economic and social benefit throughout the UK. Offshore wind really does deliver a sea of opportunity!



Source: Vattenfall

2030 Vision



£48bn investment
in UK
infrastructure



Exports increase
fivefold to £2.6bn
per annum



£2.4bn reduction
in electricity costs
to consumers



27,000 skilled
jobs

Sector Deal Priorities

Ideas

Cutting edge innovation

- Reducing costs in engineering design, construction and Operations and Maintenance (O&M)
- Creating high value exportable goods and services, with spin offs for other sectors
- New opportunities for high-tech industries e.g. robotics & digitalisation

Business
Environment

A globally leading supply chain

- Supply chain investment and new market entrants will increase productivity and continue cost reduction
- Fivefold increase in export value from globally competitive companies
- Synergies and mutual benefit for other sectors

Infrastructure

Affordable clean growth

- £48bn investment in essential energy infrastructure
- Innovative energy solutions leading to lower costs for UK industry and consumers
- £2.4bn reduction in electricity system costs to consumers, 9% compared to business as usual

People

Creating a highly skilled workforce

- 27,000 skilled jobs, nearly 3 times as many as today
- New accreditation framework for apprentices and workers
- Transferable and exportable skills
- Increased diversity and inclusion in the industry

Places

Transforming coastal communities

- Specialised clusters will support a GVA uplift in areas of low productivity, in some areas more than 2%
- Higher standard of living and increased prospects in areas of low economic development
- Incubation spaces for new technology

Outcome



Delivering 30GW of
offshore wind

Maintaining the UK's leadership of offshore wind with;

- continued cost reduction,
- affordable clean energy to meet 1/3 of UK's electricity needs,
- revitalised coastal communities
- an export-led innovative supply chain