UK Offshore Wind: Opportunities for trade and investment
Executive Summary

The United Kingdom is...

The global market leader in offshore wind:
The UK has 5.5GW installed or under construction, and is on track to deliver over 10GW by 2020, representing the largest expansion in any class of renewable energy technology.

The most attractive location for offshore wind investment in the world:
The UK consistently tops international rankings as the best place to invest in offshore wind, and has been successful in attracting investment from across the globe. The offshore wind pipeline presents an investment opportunity of between £16 to £21bn by 2020. Innovative funding models are being created to attract new sources of capital into the sector.

A stable and predictable policy regime:
The UK enjoys a reputation for operating stable and predictable policy regimes to support investment in renewable electricity infrastructure. The UK's Electricity Market Reforms provide long term stable revenues for low carbon energy projects and reduce investor risk.

Home to a growing supply chain capability:
Industry and Government are working together to build a competitive and innovative UK supply chain that delivers and sustains jobs, exports and economic benefits for the UK. UK companies lead the world in services for the design, development, financing, construction and operation of offshore wind plant. Suppliers like Siemens have already chosen the UK as the site for future world class manufacturing facilities, and there are great opportunities for further investment in the supply chain.
Introduction

This guide is an introduction to UK offshore wind, aimed at investors who are considering entering the sector and suppliers looking to export from the UK. It provides core information that will help build understanding and evaluate opportunities in this dynamic area of technological, manufacturing and infrastructure development.

The guide is supported by five organisations with a strategic role in the long-term, sustainable growth of the sector:

**UK Trade & Investment** is the Government Department that helps UK-based companies succeed in the global economy and encourages overseas companies to invest in or expand within the UK. UKTI’s Offshore Wind Investment Organisation offers dedicated support to potential investors in the UK supply chain, supports UK based suppliers to grow and export, and works with developers of UK offshore wind farms to deliver on their local supply chain strategies. The organisation works closely with the Department of Energy and Climate Change and the Department for Business Innovation and Skills.

**The Offshore Wind Programme Board** steers a collaborative, long-term programme of work that aims to deliver cost reduction and enable growth of a competitive UK-based supply chain as the offshore wind industry grows and matures. The Board was established by the Secretary of State for Energy and Climate Change in November 2012 and has a membership drawn from across the industry and government.

**The Green Investment Bank’s** purpose is to accelerate the UK’s transition to a greener economy. GIB was created by the UK Government, its sole shareholder, and capitalised with an initial £3.8bn of public funds. GIB uses this finance to back green projects, on commercial terms, across the UK and to mobilise other private sector capital into the UK’s green economy.

**The Crown Estate** is an independent commercial business created by an Act of Parliament. The Crown Estate manages the UK seabed effectively and sustainably, balancing differing interests and delivering best value over the long-term. 100% of their annual revenue profits are returned to HM Treasury for the benefit of public finances.

**RenewableUK** is the UK’s leading renewable energy trade association, with over 580 corporate members active in the wind, wave and tidal energy sectors. A not-for-profit organisation, RenewableUK is the sector’s central point of information and a united representative voice for our members. Expertise ranges from delivering research projects, conferences and exhibitions, one-day networking and business development opportunities, to promoting the benefits of wind and marine renewables to governments, related industries, the media and the public.
The UK is the world leader in offshore wind in terms of installed capacity and we have great ambitions for the future of this sector.

Offshore wind has been identified as the most scalable of the UK’s bulk renewable technologies, and will be a key part of the UK’s energy mix to 2020 and beyond. The UK currently has installed capacity of 3.7 GW and is on track to deliver over 10GW by 2020, requiring potential investment to 2020 of £16bn – £21bn. Investors are committing to the UK and this sector to pursue this opportunity.

It is vital that as the offshore wind sector grows, it strengthens its contribution to economic growth and creating jobs in the UK. Through our initiatives, this is already happening and employment has more than doubled between 2011 and 2013, with around 7,000 people directly employed in the industry, and a similar number of indirect jobs in the wider supply chain. We are keen to see this growth continue.

Within UKTI, we have created the Offshore Wind Investment Organisation, which is focusing on securing major new supply chain investments in priority sectors such as turbines and foundations. Alongside which we have the Institutional Investment and Infrastructure team who work with large global investors from around the world, to encourage investment into our offshore wind projects.

This guide, which is an initiative between leading organisations in the industry, provides an overview of the UK Offshore Wind Market and highlights trade and investment opportunities across the sector. UKTI stands ready to help you enter this crucial market.
Foreword

Adam Bruce, Chairman of the Offshore Wind Programme Board

The UK is already the world leader in offshore wind, but our ambition today is to build on this lead and to go much further. Not only are we building new offshore wind farms that will more than double the UK’s installed capacity by 2020, but equally important is our work to ensure that this new generation of infrastructure will be increasingly competitive with traditional power plant. With increased competitiveness, offshore wind is growing as an established part of the UK energy sector, and a UK-based supply chain can become the hub for the global expansion of this exciting technology.

The Offshore Wind Programme Board provides an outstanding model for cooperation across Government and international businesses, and together we’re making very good progress. Looking ahead, continuing growth offers a wealth of strong opportunities for investment - in construction projects, in operating assets and in businesses and technologies across the supply chain. We welcome the prospects of new, strategic investors entering the sector and I commend this guide to you as an ideal starting point in understanding the opportunities that the sector presents.

Maria McCaffery, CEO, RenewableUK

Since 1978 RenewableUK has been championing the UK’s wind industry. As a trade association, we have always felt that the British Isles offer a unique combination of excellent natural resources and strong maritime experience, perfectly positioning our nations to take the lead in the emerging sector of offshore wind. It is gratifying to see that the work of our Association, urging Government and key stakeholders to ensure this opportunity is fully seized, has now resulted in the most dynamic and promising offshore sector globally. This however should be just the beginning of a trajectory which continues over the next decades. The UK wind sector has shown that the power of offshore wind can be harnessed for the good of the country as whole, through extra jobs, inward investment, clean energy and enhanced energy security. We now need to make sure that we fully develop this energy source while we continue to lead as the global hub for offshore wind. RenewableUK is delighted to be working with our partners in Government and industry to make sure this happens.
Foreword

Alison Nimmo, Chief Executive for The Crown Estate
The Crown Estate, an independent commercial business created by an Act of Parliament, owns and manages a wide property portfolio across the UK, including urban - Regent Street, much of St James’s and many regional retail parks - and rural property holdings, as well as most of the seabed and half the foreshore. As landlords of the seabed, managing it effectively and sustainably and balancing different interests to deliver the best value over the long term gives us a unique role to play in developing and helping sustain the UK’s energy supply and infrastructure. The offshore wind resource of the UK is among the best in the world and we work with industry and government to bring investable opportunities to market. We do this by providing land rights to the seabed, investing in environmental and technological research, working with industry to share data and best practice through a range of enabling activities, and sometimes by co-investing in development activities. Our specialist team is committed to helping the sector expand further, and is ready to provide its support to projects as they mature from development through to investment and operations.

Shaun Kingsbury, CEO, Green Investment Bank
The UK has taken a global lead in offshore wind. Our position as the world’s most attractive location for investment is a combination of good luck - world class wind resource, and hard work – strong and consistent government commitment and a highly professional and experienced industry. The sector has, in recent years, moved into the financial mainstream with investors, many international, attracted by long dated assets and stable yields. With five investments in UK offshore wind, all on commercial terms, the Green Investment Bank is the most active investor in the sector and we would encourage others to consider the opportunities it offers. Today we are also in the process of fundraising for a £1bn fund which we intend to invest in operating assets, an investment opportunity designed for those who are new to the sector.
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Notes for the reader:
All figures and policy information used in this publication date to October 2014 and readers should account for industry developments since then.

Figures on UK offshore wind capacity are sourced from The Crown Estate, October 2014.

The existing landscape

Stable and supportive conditions have seen offshore wind expand dramatically in the UK, attracting a growing pool of international investors and delivering the largest installed capacity anywhere in the world.
Why offshore wind?

The United Kingdom is home to the world’s largest offshore wind portfolio in a stable regulatory environment.

The UK has committed to the renewal of its electricity system, aiming to maintain secure and affordable supplies whilst delivering deep cuts in carbon emissions.

The UK Government has establishing a robust new market framework designed to deliver investment in new renewable power capacity.

**Offshore wind will be at the forefront of this expansion**

The UK is already the world leader in offshore wind, and government is on track to deliver over 10GW by 2020, representing the largest expansion in any class of renewable energy technology.

Offshore wind is a proven technology which has developed in the UK through 15 years of government support. Active programmes of technological development are driving improvements in yields, reduction in costs and an acceleration in deployment.

The local supply chain is already expanding to meet demand, with leading equipment manufacturers choosing UK sites as the centre for growing operations.

**Investment is needed today, across the value chain**

A growing, dynamic sector presents a diverse range of opportunities for investment in:

- Technology and IP
- Manufacturing facilities and supply chain
- Wind farm projects in development and construction
- Construction management and contracting
- Installation plant and vessels
- Operating wind farms
- Plant operation and maintenance

**United Kingdom offshore wind offers favourable returns in a stable, regulated environment**

Offshore wind farms present an attractive investment profile:

- Long-dated assets with 25 year asset lives and up to 20 years of contracted revenues
- Largely, inflation-linked revenue streams, backed by UK Government legislation

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**UK Offshore Wind Programme**

- Installed capacity: 3.7GW
- Under construction: 1.8 GW
- 2020 potential: over 10GW
- Potential investment to 2020: £16.2bn – £21.3bn

Further potential for investment growth beyond 2020

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Figures supplied by The Crown Estate
Global investment

The UK offshore wind market has received investment from across the world and has been at the forefront of attracting new investors into the sector.

Existing investors in the UK offshore wind pipeline

- Canada
  - La Caisse de dépôt et placement du Québec

- Denmark
  - DONG Energy

- France
  - EDF

- Germany
  - E.ON
  - RWE npower
  - Siemens
  - Stadtwerke München

- Ireland
  - Mainstream

- Japan
  - Development Bank of Japan
  - Marubeni Corporation

- South Korea
  - Samsung Heavy Industries

- Netherlands
  - Eneco
  - PGM and Ampère Equity Fund

- Norway
  - Statkraft
  - Statoil

- Spain
  - EDP Renováveis
  - Iberdrola (Scottish Power)
  - Repsol

- Sweden
  - Vattenfall

- United Arab Emirates
  - Masdar

- United Kingdom
  - Aberdeen Renewable Energy Group
  - Blyth Demo
  - Centrica
  - Greenspace
  - JP Morgan Asset Management
  - M&G Investments
  - SSE
  - UK Green Investment Bank

- United States of America
  - Fluor
  - TCW
Global investment ranking

The UK is consistently ranked as the best place in the world to invest in offshore wind.

Ernst & Young Country Attractiveness Index Offshore Wind – September 2014

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Change of the E&Y indexation methodology

Source information from Ernst & Young for offshore wind only.
Indicative returns
The sector offers a diverse range of investment profiles to suit the requirements of different classes of investor.

Entry and exit timings for equity investors with target risk-adjusted returns:

Methodology: The positioning of the different players along the risk-return and entry timing spectrum is based on interviews with market players. Due to commercial considerations, these are not exact numbers, but a range, where the average of all the groups lies.
Source: Bloomberg New Energy Finance
Comparison of risk

Judged against a range of criteria, the UK has been shown to provide the most stable regulatory regime in North Sea countries.

BNEF Central scenario

<table>
<thead>
<tr>
<th></th>
<th>2020 LCOE (EUR/MWh)</th>
<th>Current Project IRR</th>
<th>Policy in place? (max 2)</th>
<th>Project IRR (max 4)</th>
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<tr>
<td>UK</td>
<td>128</td>
<td>10-15%</td>
<td>Yes (2)</td>
<td>Good (4)</td>
</tr>
<tr>
<td>Germany</td>
<td>133</td>
<td>5-10%</td>
<td>Yes (2)</td>
<td>Good (3)</td>
</tr>
<tr>
<td>Denmark</td>
<td>127</td>
<td>5-8%</td>
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<td>Medium (2)</td>
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<td>Belgium</td>
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<td>Yes (2)</td>
<td>Good (4)</td>
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<tr>
<td>France</td>
<td>130</td>
<td>5-10%</td>
<td>Yes (2)</td>
<td>Medium (3)</td>
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</table>

Methodology: The policy risk outcomes are based on qualitative analysis of the political support for renewables in those countries and the expected changes in the political landscape. It also takes into account what type of support countries offer and the likelihood of regulatory change given the overall support shifts that we see in a particular market. The country specific project IRRs and Levelised Cost of Energies are based on calculations with our in-house Asset Evaluation Model. Here we assume certain costs depending on project site and size, tax regimes, inflation etc. and the relevant subsidy support.

Source: Bloomberg New Energy Finance
Section two

Project pipeline

A continuing programme of development and construction will present further investment opportunities as the UK’s offshore wind capacity doubles to 2020.
Project pipeline

UK projects have attracted a broad range of integrated suppliers, independent power producers, and sovereign wealth funds.

Developer shares in each phase – October 2014
Project pipeline

Opportunities exist to invest across operating assets, wind farms in construction and projects in development.

UK offshore wind project pipeline – October 2014

Operational: Total capacity of wind farms that have been fully commissioned.

<table>
<thead>
<tr>
<th>No.</th>
<th>Project name</th>
<th>Capacity MW</th>
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<tr>
<td>01</td>
<td>Barrow</td>
<td>90</td>
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<tr>
<td>02</td>
<td>Blyth</td>
<td>4</td>
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<tr>
<td>03</td>
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<td>Gunfleet Sands Demonstration</td>
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<td>06</td>
<td>Gunfleet Sands I</td>
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<td>07</td>
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<td>08</td>
<td>Inner Dowsing</td>
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<tr>
<td>09</td>
<td>Kentish Flats</td>
<td>90</td>
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<tr>
<td>10</td>
<td>Lincs</td>
<td>270</td>
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<td>London Array 1</td>
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<td>23</td>
<td>Walney (Phase 1)</td>
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<tr>
<td>24</td>
<td>Walney (Phase 2)</td>
<td>184</td>
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<td></td>
<td><strong>Total</strong></td>
<td><strong>3,650</strong></td>
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Under construction: Total capacity of wind farms that are under construction or where the developer has confirmed a final investment decision, but are not yet fully operational.

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<td>Kentish Flats Extension</td>
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</tr>
<tr>
<td>29</td>
<td>West of Duddon Sands</td>
<td>389</td>
</tr>
<tr>
<td>30</td>
<td>Westermost Rough</td>
<td>210</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1,846</strong></td>
</tr>
</tbody>
</table>

Government support on offer: Total capacity of wind farms that have secured a Contract for Difference (including under the Final Investment Decision Enabling for Renewables process) or whose publicly stated timescales are consistent with accessing the Renewables Obligation.

<table>
<thead>
<tr>
<th>No.</th>
<th>Project name</th>
<th>Up to capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>Beatrice</td>
<td>664</td>
</tr>
<tr>
<td>32</td>
<td>Burbo Bank Extension</td>
<td>258</td>
</tr>
<tr>
<td>33</td>
<td>Walney Extension</td>
<td>660</td>
</tr>
<tr>
<td>34</td>
<td>Heron Wind (Hornsea)</td>
<td>600</td>
</tr>
<tr>
<td>35</td>
<td>Njord (Hornsea)</td>
<td>600</td>
</tr>
<tr>
<td>36</td>
<td>Galloper¹</td>
<td>340</td>
</tr>
<tr>
<td>37</td>
<td>Neart na Gaoithe (NNG)¹</td>
<td>450</td>
</tr>
<tr>
<td>38</td>
<td>Race Bank¹</td>
<td>580</td>
</tr>
<tr>
<td>39</td>
<td>Rampion¹</td>
<td>700</td>
</tr>
<tr>
<td>40</td>
<td>Blyth Demonstration²</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>4,952</strong></td>
</tr>
</tbody>
</table>

Consented: Total capacity of wind farms that have planning consent for offshore works and firm grid connection offer, and for which government support is not yet in place.

<table>
<thead>
<tr>
<th>No.</th>
<th>Project name</th>
<th>Up to capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>Aberdeen Demonstration</td>
<td>66</td>
</tr>
<tr>
<td>42</td>
<td>Telford (Moray Firth)</td>
<td>372</td>
</tr>
<tr>
<td>43</td>
<td>MacColl (Moray Firth)</td>
<td>372</td>
</tr>
<tr>
<td>44</td>
<td>Stevenson (Moray Firth)</td>
<td>372</td>
</tr>
<tr>
<td>45</td>
<td>East Anglia One (East Anglia)</td>
<td>1,200</td>
</tr>
<tr>
<td>46</td>
<td>Triton Knoll</td>
<td>1,200</td>
</tr>
<tr>
<td>47</td>
<td>Inch Cape</td>
<td>784</td>
</tr>
<tr>
<td>48</td>
<td>Seagreen Alpha (Firth of Forth)</td>
<td>525</td>
</tr>
<tr>
<td>49</td>
<td>Seagreen Bravo (Firth of Forth)</td>
<td>525</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>5,416</strong></td>
</tr>
</tbody>
</table>

In planning: Total capacity of wind farms for which a consent application has been submitted.

<table>
<thead>
<tr>
<th>No.</th>
<th>Project name</th>
<th>Up to capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>2-B Demo</td>
<td>12</td>
</tr>
<tr>
<td>51</td>
<td>Teesside A (Dogger Bank)</td>
<td>1,200</td>
</tr>
<tr>
<td>52</td>
<td>Teesside B (Dogger Bank)</td>
<td>1,200</td>
</tr>
<tr>
<td>53</td>
<td>Creyke Beck A (Dogger Bank)</td>
<td>1,200</td>
</tr>
<tr>
<td>54</td>
<td>Creyke Beck B (Dogger Bank)</td>
<td>1,200</td>
</tr>
<tr>
<td>55</td>
<td>Navitus Bay</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>5,712</strong></td>
</tr>
</tbody>
</table>

Total: 21.6GW

---

1 RO feasible based on published grid connection dates as per TEC register – Oct 2014
2 AFl currently under competitive tender

NOTE: Quoted capacity refers to the property rights held with The Crown Estate and does not necessarily reflect the build out capacity permissible under current or future statutory planning permissions.

³ There is an additional 8.5GW of capacity under AFl with The Crown Estate that has not submitted a consent application.
The location of the UK's offshore wind resource provides for geographical diversification across UK territorial waters and the Continental Shelf.
Project pipeline

Over 20 international equity investors have already invested into UK operational or construction projects. An increasing number of assets will present important refinancing opportunities in the future.

Offshore wind farms in construction or operation – October 2014

<table>
<thead>
<tr>
<th>Project name</th>
<th>Equity investors</th>
<th>No. of turbines</th>
<th>Capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrow</td>
<td>Centrica, DONG Energy</td>
<td>30</td>
<td>90</td>
</tr>
<tr>
<td>Blyth</td>
<td>E.ON</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Burbo Bank</td>
<td>DONG Energy</td>
<td>25</td>
<td>90</td>
</tr>
<tr>
<td>Greater Gabbard</td>
<td>RWE npower, SSE</td>
<td>140</td>
<td>504</td>
</tr>
<tr>
<td>Gunfleet Sands Demonstration</td>
<td>DONG Energy</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Gunfleet Sands I</td>
<td>DONG Energy, Marubeni Corporation, Development Bank of Japan</td>
<td>30</td>
<td>108</td>
</tr>
<tr>
<td>Gunfleet Sands II</td>
<td>DONG Energy, Marubeni Corporation, Development Bank of Japan</td>
<td>18</td>
<td>65</td>
</tr>
<tr>
<td>Inner Dowsing</td>
<td>Centrica, TCW</td>
<td>27</td>
<td>97</td>
</tr>
<tr>
<td>Kentish Flats</td>
<td>Vattenfall</td>
<td>30</td>
<td>90</td>
</tr>
<tr>
<td>Lincs</td>
<td>Centrica, DONG Energy, Siemens</td>
<td>75</td>
<td>270</td>
</tr>
<tr>
<td>London Array 1</td>
<td>DONG Energy, E.ON, La Caisse de dépôt et placement du Québec, Masdar</td>
<td>175</td>
<td>630</td>
</tr>
<tr>
<td>Lynn</td>
<td>Centrica, TCW</td>
<td>27</td>
<td>97</td>
</tr>
<tr>
<td>Methil Demonstration - Samsung</td>
<td>Samsung Heavy Industries</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>North Hoyle</td>
<td>RWE npower, JP Morgan Asset Management, M&amp;G Investments</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Ormonde</td>
<td>Vattenfall</td>
<td>30</td>
<td>150</td>
</tr>
<tr>
<td>Rhyll Flats</td>
<td>RWE npower, Greencoat, UK Green Investment Bank</td>
<td>25</td>
<td>90</td>
</tr>
<tr>
<td>Robin Rigg East</td>
<td>E.ON</td>
<td>30</td>
<td>90</td>
</tr>
<tr>
<td>Robin Rigg West</td>
<td>E.ON</td>
<td>30</td>
<td>90</td>
</tr>
<tr>
<td>Scroby Sands</td>
<td>E.ON</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Sheringham Shoal</td>
<td>Statkraft, Statoil</td>
<td>88</td>
<td>317</td>
</tr>
<tr>
<td>Teesside</td>
<td>EDF</td>
<td>27</td>
<td>62</td>
</tr>
<tr>
<td>Thanet</td>
<td>Vattenfall</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>Walney (Phase 1)</td>
<td>DONG Energy, PGGM and Ampère Equity Fund, SSE</td>
<td>51</td>
<td>184</td>
</tr>
<tr>
<td>Walney (Phase 2)</td>
<td>DONG Energy, PGGM and Ampère Equity Fund, SSE</td>
<td>51</td>
<td>184</td>
</tr>
</tbody>
</table>

Partially operational sites

<table>
<thead>
<tr>
<th>Project name</th>
<th>Equity investors</th>
<th>No. of turbines</th>
<th>Capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gwynt y Môr</td>
<td>RWE npower, Siemens, Stadtwerke München</td>
<td>160</td>
<td>576</td>
</tr>
<tr>
<td>Westernmost Rough</td>
<td>DONG Energy, Marubeni Corporation, UK Green Investment Bank</td>
<td>35</td>
<td>210</td>
</tr>
<tr>
<td>West of Duddon Sands</td>
<td>DONG Energy, Iberdrola (ScottishPower)</td>
<td>108</td>
<td>389</td>
</tr>
</tbody>
</table>

Assets under construction

<table>
<thead>
<tr>
<th>Project name</th>
<th>Equity investors</th>
<th>No. of turbines</th>
<th>Capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humber Gateway</td>
<td>E.ON</td>
<td>73</td>
<td>219</td>
</tr>
<tr>
<td>Dudgeon</td>
<td>Statoil, Statkraft, Masdar</td>
<td>67</td>
<td>402</td>
</tr>
<tr>
<td>Kentish Flats Extension</td>
<td>Vattenfall</td>
<td>15</td>
<td>50</td>
</tr>
</tbody>
</table>
Project pipeline

Government support is available to facilitate a trajectory to over 10GW capacity by 2020.
Offshore transmission

Electricity transmission assets for offshore wind are attractive to investors seeking relatively low-risk regulated returns.

Market Background

Offshore transmission assets transport electricity from offshore generation sites (such as wind farms) back to the onshore grid. Ofgem is responsible for running tenders to appoint offshore transmission owners (OFTOs) for individual transmission assets.

- Over £1.4bn has been invested so far in the OFTO asset class from a wide variety of equity and debt investors, with a further £1.5bn in the tender process.

- The strong future offshore wind pipeline will deliver billions of pounds of further investment in the OFTO market.

- Licenses give successful bidders the responsibility to operate and manage the asset for a 20-year period, in return for a regulated, stable revenue stream.

Why Invest?

The asset class has quickly attracted significant interest from the investor community, offering solid returns on a relatively low risk profile underwritten by a stable regulatory framework overseen by Ofgem. This provides the opportunity to receive a long-term index linked revenue stream.

Tender Round 3 was launched in early 2014, with bids invited to own and operate already constructed assets worth approximately £400m in total. In future, there may be opportunities for OFTOs to design, procure and construct offshore transmission assets as well, depending on developer's risk appetite.
Offshore transmission

Electricity transmission assets for offshore wind are attractive to investors seeking relatively low-risk regulated returns.

### OFTO status – October 2014

#### OFTO Round: Transition 1

<table>
<thead>
<tr>
<th>Project name</th>
<th>Consortium</th>
<th>Capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrow</td>
<td>Transmission Investment, International Public Partnerships (IPP) &amp; Amber Infrastructure Group</td>
<td>90</td>
</tr>
<tr>
<td>Greater Gabbard</td>
<td>Balfour Beatty Capital, Equitix &amp; AMP Capital</td>
<td>504</td>
</tr>
<tr>
<td>Gunfleet Sands I &amp; II</td>
<td>Transmission Investment, International Public Partnerships (IPP) &amp; Amber Infrastructure Group</td>
<td>173</td>
</tr>
<tr>
<td>Ormonde</td>
<td>Transmission Investment, International Public Partnerships (IPP) &amp; Amber Infrastructure Group</td>
<td>150</td>
</tr>
<tr>
<td>Robin Rigg East &amp; West</td>
<td>Transmission Investment, International Public Partnerships (IPP) &amp; Amber Infrastructure Group</td>
<td>180</td>
</tr>
<tr>
<td>Sheringham Shoal</td>
<td>Macquarie Capital Group Limited &amp; Barclays Infrastructure Funds Management Limited</td>
<td>317</td>
</tr>
<tr>
<td>Thanet</td>
<td>Balfour Beatty Plc</td>
<td>300</td>
</tr>
<tr>
<td>Walney (Phase 1)</td>
<td>Macquarie Capital, Barclays Infrastructure Funds</td>
<td>184</td>
</tr>
<tr>
<td>Walney (Phase 2)</td>
<td>Macquarie Capital, Barclays Infrastructure Funds Management Limited &amp; Mitsubishi Corporation</td>
<td>184</td>
</tr>
</tbody>
</table>

#### OFTO Round: Transition 2

<table>
<thead>
<tr>
<th>Project name</th>
<th>Consortium</th>
<th>Capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gwynt y Mor</td>
<td>Balfour Beatty Investments Ltd &amp; Equitix Ltd</td>
<td>576</td>
</tr>
<tr>
<td>Lincs</td>
<td>Transmission Investment &amp; International Public Partnerships (IPP) Ltd</td>
<td>270</td>
</tr>
<tr>
<td>London Array</td>
<td>Macquarie Capital, Barclays Integrated Infrastructure Fund, Mitsubishi &amp; Frontier Power</td>
<td>630</td>
</tr>
<tr>
<td>West of Duddon Sands</td>
<td>Macquarie Capital, 3I BIFL Investments &amp; Frontier Power</td>
<td>389</td>
</tr>
</tbody>
</table>

#### OFTO Round: Enduring 1

<table>
<thead>
<tr>
<th>Project name</th>
<th>Consortium</th>
<th>Capacity MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humber Gateway</td>
<td>To be determined</td>
<td>219</td>
</tr>
<tr>
<td>Westernmost Rough</td>
<td>To be determined</td>
<td>210</td>
</tr>
</tbody>
</table>
Section three

Building a stable environment for investment

Electricity Market Reform strengthens further the UK’s stable policy framework for investment. Contracts for difference provide long term stable revenues for offshore wind projects, giving certainty on returns for investors.
The UK energy sector will require up to £100bn investment to 2020. To support delivery, the Government has introduced a comprehensive Electricity Market Reform (EMR) programme, underpinned by the Energy Act 2013.

Through EMR, the UK aims to secure this investment and achieve a sustainable balance between its three policy objectives:

Decarbonisation
The UK has a target for 15% of energy supply to be met from renewable sources by 2020, in line with the EU Renewable Energy Directive. To achieve this, around 30% of the UK’s electricity will be supplied from renewable sources.

In the 2013 Energy Act the UK committed to an emissions reduction of 80% on 1990 levels by 2050. The UK is the first country in the world to set itself legally binding carbon budgets to define the trajectory to meet this goal. The latest budget commits the UK to emissions reductions of 50% on 1990 levels by 2027.

Reform introduced: A new support mechanism – Contracts for Difference (CFD) – has been introduced to secure the investment needed to meet this goal.

Security of supply
Around a fifth of the UK’s existing electricity capacity is due to come offline in the next decade as aging coal and nuclear plants are decommissioned.

Reform introduced: A Capacity Market provides a regular availability payment to dispatchable forms of power generation (and demand reduction) capacity, ensuring that this plant is available during periods of high demand or shortfall in output from renewable generators.

Affordability
The Government is committed to minimising costs for the consumer.

Reform introduced: To ensure affordability for consumers, subsidies for low-carbon generation must fall within a Levy Control Framework. This framework provides a planning horizon for industry and transparency over liabilities facing consumers.
Financial support for low-carbon energy

The United Kingdom enjoys a longstanding reputation for operating stable and predictable regimes to support investment in renewable electricity infrastructure.

The recently-introduced *Contracts for Difference* (CFD) and the established *Renewables Obligation* (RO) offer long-term predictable index-linked yields from proven infrastructure assets. The RO support scheme will close to new offshore wind projects in 2017. Both these support schemes are:

- established in UK primary legislation
- funded by consumers through the electricity market and not through general taxation

A *Levy Control Framework* (LCF) provides long-term visibility of liabilities under these regimes, assisting investment planning and providing transparency and stability in public policy. The LCF budget for supporting low carbon energy has been confirmed out to 2020/21.

In addition to the RO and CFD, revenues for renewable generators are supported through:

- exemption from the UK’s Climate Change Levy – realised through the sale of Levy Exemption Certificates (LECs)
- avoided costs of carbon emissions –through the EU Emissions Trading Scheme and the UK’s Carbon Price Floor

**Levy Control Framework: Upper limit on total revenue budget available to low-carbon projects (£m 2011/12 prices)**

<table>
<thead>
<tr>
<th>14/15</th>
<th>15/16</th>
<th>16/17</th>
<th>17/18</th>
<th>18/19</th>
<th>19/20</th>
<th>20/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,300</td>
<td>4,300</td>
<td>4,900</td>
<td>5,600</td>
<td>6,450</td>
<td>7,000</td>
<td>7,600</td>
</tr>
</tbody>
</table>
Renewables Obligation

Many assets are underpinned by a well-established incentive that is already supporting offshore wind investment.

Key points about the Renewables Obligation (RO):
Legislated for in the UK’s Utilities Act 2000
The RO has brought forward 3.7 GW of operating offshore wind capacity, with a further 1.4 GW in construction under the scheme
Open to new investments until 31 March 2017, or 31 March 2018 subject to an investment grace period
Provides an income to offshore wind generators, which supplements revenues from the wholesale electricity market:
  • Expected revenue premium for offshore wind generators of c.£95/MWh of electricity generated in 2014/15
# Renewables Obligation

Revenue realisation under the Renewables Obligation.

## Features of the Renewables Obligation

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tenure</strong></td>
<td>20 year support period</td>
</tr>
<tr>
<td><strong>Inflation indexation</strong></td>
<td>None. ROC value subject to market forces</td>
</tr>
<tr>
<td><strong>Mechanism</strong></td>
<td>Underpinned by an obligation on licenced electricity suppliers to source an increasing proportion of electricity from renewable sources, a form of renewable portfolio standard. Accredited renewable generators issued with Renewables Obligation Certificates (ROCs) – a form of green certificate - in proportion to the renewable electricity they generate. ROC level applicable at time of accreditation. ROCs used by licenced suppliers to demonstrate that they have met their obligation. Suppliers which fail to present sufficient ROCs to meet their obligation pay an equivalent amount into a buy-out fund. Fund recycled to suppliers which surrender ROCs.</td>
</tr>
<tr>
<td><strong>Payment</strong></td>
<td>Typically through a Power Purchase Agreement – a contractual arrangement between generators and licenced suppliers or traders.</td>
</tr>
</tbody>
</table>
Contracts for Difference

Future wind farms can benefit from a newly-adopted mechanism providing a stable framework for financial investors.

Key points about Contractors for Difference (CFDs)

- Legislated for in the UK’s Energy Act 2013
- First allocation round for Renewable CFDs open to applications in October 2014, with award of contracts due by March 2015.
- Subsequent allocations intended to be on an annual basis
- Provides an indexed, regulated revenue for generators with insulation from wholesale price risk

Administrative strike prices for offshore wind are set out below. However when allocation rounds are over-subscribed generators will receive the clearing price from a competitive auction

Offshore Wind Strike price (£/MWh) (2012 prices)

<table>
<thead>
<tr>
<th>Year</th>
<th>Strike Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/15</td>
<td>155</td>
</tr>
<tr>
<td>15/16</td>
<td>155</td>
</tr>
<tr>
<td>16/17</td>
<td>150</td>
</tr>
<tr>
<td>17/18</td>
<td>140</td>
</tr>
<tr>
<td>18/19</td>
<td>140</td>
</tr>
</tbody>
</table>
## Contracts for Difference

### Practical operation of CFDs.

### Features of the Feed-in Tariff with Contracts for Difference

<table>
<thead>
<tr>
<th><strong>Tenure</strong></th>
<th>15 year contract term for plant commissioned by longstop date.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inflation indexation</strong></td>
<td>Strike price fully indexed 100% to Consumer Price Index throughout entire term.</td>
</tr>
</tbody>
</table>

**Mechanism**

Generators agree strike price for electricity generated. Strike price may be an administered price set by the Government or, in circumstances of high demand for contracts, the clearing price from a competitive auction.

Generator sells electricity produced under a contract or Power Purchase Agreement to a licenced supplier or trader.

Payments from the CFD counterparty (the Low Carbon Contracts Company), make up any shortfall in revenues from the differential between the strike price and an agreed reference price. Reference price is the GB day - ahead hourly price.

**Payment**

Payment is made by the Low Carbon Contracts Company from revenues received from licenced suppliers. Supplier Obligation creates a legal requirement for licenced suppliers to meet CFD costs. Credit waterfall arrangements protect generator revenues in the event of supplier default.

**Contractual arrangements**

Generator is protected against unforeseeable changes in law that target a project, technology or the CFD. Protection also provided for political decisions to shut down a generator and for Force Majeure and construction events affecting economic completion of the project.
Final Investment Decision Enabling for Renewables

Five offshore wind projects have already been awarded an early form of contract for difference.

The map opposite shows five projects which have been awarded Investment Contracts – or early Contracts for Difference (CFD) under the Final Investment Decision (FID) Enabling for Renewables process.

The project received State Aid approval from the European Commission in July 2014. In the same month Dudgeon (a joint venture between two Norwegian energy companies, Statoil and Statkraft) became the first of these projects to announce its Final Investment Decision.

**Beatrice**
Offshore wind, 664 MW
Outer Moray Firth, Scotland

**Walney Extension**
Offshore wind, 660 MW
Irish Sea 10km WSW off the Walney Island coast in Cumbria

**Hornsea 1**
Offshore wind, 1200 MW
North Sea, off the Yorkshire coast

**Burbo Bank Extension**
Offshore wind, 258 MW
Liverpool Bay

**Dudgeon**
Offshore wind, 402 MW
The Wash north of Cromer, Norfolk
Site award process and consenting

Offshore wind concessions are offered on a clear and consistent basis with robust planning procedures.

The leasing process has at least two stages, an Agreement for Lease (AfL, giving the developer the right to exercise an option on the site subject to obtaining statutory consents) and a Lease. Applications for development consent are prepared by developers and submitted to the relevant regulator:

<table>
<thead>
<tr>
<th>Consent decisions are made by:</th>
<th>Application and examination process is administered by:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>England</strong></td>
<td></td>
</tr>
<tr>
<td>Over 100MW - Secretary of State for Energy and Climate Change</td>
<td>Over 100MW - Planning Inspectorate</td>
</tr>
<tr>
<td>Under 100MW - Marine Management Organisation</td>
<td>Under 100MW - Marine Management Organisation</td>
</tr>
</tbody>
</table>

| **Wales**                      |                                                    |
| Over 100MW - Secretary of State for Energy and Climate Change and Natural Resources Wales | Over 100MW - Planning Inspectorate                  |
| Under 100MW - Marine Management Organisation and Natural Resources Wales | Under 100MW - Marine Management Organisation and Natural Resources Wales |

| **Northern Ireland**           |                                                    |
| Department of the Environment Northern Ireland and Department for Enterprise, Trade and Investment | Northern Ireland Environment Agency |

| **Scotland**                  |                                                    |
| Scottish Ministers            | Marine Scotland                                   |
| Consent applications include details on project design, an “Environmental Impact Assessment” (EIA) and evidence that the developer has undertaken detailed consultation with stakeholders on the project as it progresses. |

The relevant regulator will carry out consultation on the application in order to establish – by weighing up its benefits, adverse effects and consultation responses – whether a project should be granted consent. The final decision rests with the above named organisations.

Exclusivity Agreement  Agreements for Lease  Statutory Consenting Process  Lease  Construction & Operation
The UK is committed to delivering a capable, competitive, and innovative local supply chain. Investors like Siemens have already committed to new manufacturing facilities in the UK, and many more opportunities exist for investment to boost existing manufacturing capability. The UK is a strong platform for exports to Europe and beyond and companies are already seizing this opportunity.
The Offshore Wind Industrial Strategy

Industry and Government are working together to build a competitive and innovative UK supply chain that delivers and sustains jobs, exports and economic benefits for the UK.

The vision is to deliver:

• Economic growth creating tens of thousands of long-term UK jobs
• A clear and sustainable project pipeline
• Major manufacturing facilities in the UK
• The development of a competitive UK-based supply chain
• A technology cost-competitive with other low carbon technologies

Delivered through work in five areas:

• Providing market confidence and demand visibility – critical for investment by developers and the supply chain
• Building a competitive supply chain – to support UK based companies to develop the capability and capacity to bid for, and win, contracts in open and fair competition
• Supporting innovation – vital to achieve cost reduction and enable new players to enter the market with new product designs
• Finance – support to access finance for developers and the supply chain
• Building a highly skilled workforce – to deliver the right skills at the right time

Offshore wind cost reduction

The supply chain is innovating to reduce costs and deliver a competitive product for UK and international markets.

The UK set up the Offshore Wind Cost Reduction Task Force as a joint collaboration between Government and industry to delivery on the point of cost reduction. The Crown Estate in support of the Offshore Wind Reduction Task Force concluded a detailed review of offshore wind costs in 2012.

This concluded that costs can be reduced to around £100/MWh for a project financed in 2020.

The main areas of cost reduction are larger turbines, supply chain competition, better design and economies of scale.

Other areas that will contribute include risk reduction and lower costs of capital.

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**Offshore wind power cost reduction opportunities from technology and supply chain**

% reduction in levelised cost of energy FID 2011 to FID 2020

For this comparison the cost of capital is held constant over time, and all costs are in the 2011 money. Percentages are multiplicative not additive so the total is the product rather than the sum of the cost reduction elements.

Source: Offshore Wind Cost Reduction Pathways Study from The Crown Estate, May 2012
UK Supply Chain: Investment Opportunities

UK based manufacturers are in a strong position to access the largest global market for offshore wind.

<table>
<thead>
<tr>
<th>Component</th>
<th>Investment opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore turbine manufacturing</td>
<td>Siemens have committed to manufacture blades and assemble nacelles on the Humber. Market demand is sufficient to support further UK based turbine manufacturing facilities. The UK pipeline to 2020 alone will demand an estimated 800-1,000 wind turbines – around 50% of the European market.</td>
</tr>
<tr>
<td>Offshore turbine towers</td>
<td>Existing European facilities do not have the capacity to deliver the volume of offshore towers required by the market – new investment is required. The UK offers significant logistical advantages due to challenges and costs of tower transportation.</td>
</tr>
</tbody>
</table>
UK Supply Chain: Investment Opportunities

UK based manufacturers are in a strong position to access the largest global market for offshore wind.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Foundations</td>
<td>The market continues to generate high demand for extra large monopiles and transition pieces. Investment in new or existing plant could deliver these competitively from the UK. The UK has the capability to deliver jackets and secondary steel, with opportunities for partnership and investment to deliver serial jackets production.</td>
</tr>
<tr>
<td>Cables</td>
<td>The UK market presents a strong investment opportunity for cable manufacturing with high volume contract opportunities for export cables and interconnectors. The UK already has a strong track record in inter-array cables, supplying the UK and EU markets.</td>
</tr>
<tr>
<td>Substations</td>
<td>The UK project pipeline requires an estimated 13-15 substations by 2020. UK fabricators bring experience from the offshore oil and gas sector, and have a track record in supplying projects in the UK and wider EU market. Partnership opportunities exist to build on this existing capability for future orders.</td>
</tr>
</tbody>
</table>
Investment Case Study: Siemens and ABP, Humber Region

Siemens investment in turbine manufacturing is a strong vote of confidence in the UK’s industry.

Overview

In March 2014, Siemens Wind Power selected Green Port Hull and Paull as the locations for nacelle assembly and blade manufacturing for their next generation offshore wind turbines.

This £310m investment (£160m from Siemens and a further £150m from their port partner Associated British Ports) will bring 1,000 jobs to the Humber.

Since March, Siemens has received continued on-going support from the UK to encourage regional investment from companies that can both supply their new plant and increase its competitiveness.

Investment Rationale

With its stable offshore wind policy environment, secure project pipeline and robust infrastructure, Siemens Wind Power clearly believes the UK to be the best location in Europe for their first dedicated offshore wind manufacturing facility.

The Humber is also particularly well placed to serve both large Round 3 projects in the UK and continental Europe, with further potential opportunities available for investment in the region.

“This investment demonstrates our ongoing commitment to UK manufacturing and confidence in the industry. The development of local manufacturing will provide a huge boost to the UK renewables industry and will help unlock other major projects and investments.”

Matthew Chinn, Managing Director, Siemens UK & Ireland

“This deal shows our strategy for offshore wind is working; bringing investment, green jobs and growth, and helping keep Britain the number one country in the world for offshore wind”

Ed Davey, Secretary of State for Energy and Climate Change
Trade opportunities: the northern European market

The UK is a solid platform for exports to Northern Europe.

Overview

The UK is a prime location from which to access the wider European offshore wind market, which holds potential for over £50bn of non-UK contracts to 2020.

The Opportunity

Siemens is expected to be in a position to sign contracts for exports from the Humber in 2015, for delivery in 2017. Associated future investments in the turbine supply chain would also be likely to increase exports, particularly into markets with minimal domestic manufacturing capacity.

The UK has supplied inter-array cables and jacket foundations into German projects, alongside offshore substations to Belgium. As the domestic market ramps up, we expect the necessary investment in manufacturing capacity to create a more competitive position for UK companies internationally.

Estimated Potential Value of Northern European Offshore Wind Contracts 2014-20 (excluding UK and for Projects Operational 2016-2022)
Trade case study: JDR success in Germany

JDR cables is a strong example of the UK’s existing manufacturing capability.

Overview
JDR, with UK facilities in Hartlepool and Littleport, is one of the world’s leading suppliers of offshore wind inter-array cables. The company also designs and manufactures subsea production umbilicals, subsea power cables and IWOCS for the offshore oil and gas industry.

Alongside significant domestic achievements, JDR is one of the most successful UK exporters into the European offshore wind sector. In 2014 this included contract wins on RWE Innogy’s Nordsee One project and Vattenfall’s Sandbank project, both in German waters. These wins follow the successful completion in 2012 of JDR’s first German contract; Meerwind for Wind MW.

Creating the Opportunity
JDR has built a reputation for quality and successful delivery in the domestic UK market, with projects that have included London Array and Greater Gabbard. This has ensured that they have become the supplier of choice for developers and cable installers seeking a knowledgeable partner for challenging projects.

JDR has made use of UK Export Finance support to enhance its competitive position in the European market. UKTI has also ensured JDR is well positioned with key customers and receives all necessary support from Government to increase competitiveness and promote success.

“The backing of Government through UKTI and UKEF has provided support for JDR to compete for offshore array cable projects with new customers both within Europe and further afield. This has given us the confidence to invest in product development and export capacity in order to compete effectively in the global renewable energy marketplace”

Martin Boden, Chief Financial Officer, JDR Cable Systems
Global market opportunities

UK companies lead the world in services for the design, development, financing, construction and operation of offshore wind plant. This UK expertise is a strong export opportunity.

With well over a decade of commercial deployment and the largest installed capacity of offshore wind in the world, the UK has developed a leading position that many countries are now seeking to learn from. UK companies are uniquely well placed to bring this learning to emerging markets and support the delivery of key environmental, social and economic objectives.

A selection of UK expertise in offshore wind services.
Global market opportunities

UK companies lead the world in services for the design, development, financing, construction and operation of offshore wind plant. This UK expertise is a strong export opportunity.

Below is a brief summary of three emerging markets that present trade opportunities for UK companies. Other opportunities emerging outside of Europe include Taiwan, South Korea, India and Canada.

**China**
- China has recently announced its support mechanism for offshore wind
- Developers and design institutes are seeking support from UK companies to design and certify both projects and technologies
- Opportunities exist for both environmental and engineering consultancies, particularly in the design of electrical infrastructure, the development of O&M strategies and risk-based project integration.

**Japan**
- Owing to depth constraints Japan is progressing with floating projects and assessing deep water fixed options
- Japan presents a unique opportunity for experienced offshore wind companies to develop and deploy innovative technologies.
- Opportunities are emerging for design consultancies experienced in deep water and floating oil and gas infrastructure, and advisors experienced in dealing with marine life and fisheries.

**United States**
- States in the north east have begun to develop offshore wind policies
- UK companies that have supported the development of a domestic industrial base are highly sought after, as are those that can deliver safe, timely and cost effective projects
- Opportunities are emerging not only for environmental and engineering consultancy service companies but also for equity partners, EPC contractors and pure play investors.
Section five

Accelerating trade and investment

UKTI’s Offshore Wind Investment Organisation is here to support your business to succeed in this sector, and can point you towards the wider Government support available to investors and exporters. Innovative funding models are being created through Government and the Green Investment Bank to attract new sources of capital into offshore wind.
The Offshore Wind Investment Organisation (OWIO)

OWIO offers dedicated support to potential UK investors, and can support your company to export from a UK base to markets in Northern Europe and globally.

The Offshore Wind Investment Organisation (OWIO) has been established within UK Trade & Investment as a key part of delivering the Government’s Industrial Strategy. OWIO’s objective is to promote a competitive, capable and innovative UK supply chain to supply offshore wind projects both in the UK and internationally.

**OWIO offers dedicated support for potential UK investors and exporters:**

- **A single point of contact** dedicated to supporting your business to succeed in the UK and its export markets
- **Market insight** into the UK and its export markets
- **Links to UK Government financial support:** For example support for capital investment in manufacturing, training of staff, research and development, and UK Export Finance
- **Practical support** in setting up your business as a new investor: identifying suitable sites for manufacturing facilities or company offices, accessing visas, links to recruitment providers etc.
- **Relationships with opportunity providers:** collecting information on forthcoming and current export opportunities
- **Facilitating partnerships** between overseas partners and existing UK companies where appropriate

**OWIO can help you to navigate UK Government to access the support your company needs.** OWIO works in close coordination with our network of overseas embassies, other Government departments, local Government, and the Devolved Administrations, and can help to link you up with support in these organisations.
Support for business

UK Government offers a range of support products – please ask OWIO for guidance.

Examples of financial support for investors:

**Advanced Manufacturing Supply Chain Initiative (AMSCI)**

Funding to support collaborative supply chain projects with research and development, skills training and capital investment in England. Applications open until end of 2014.

**Enterprise zone funding**

Various measures to assist companies that invest in specific “enterprise zones” including:

- up to 100% business rates relief (worth up to £275,000) over a 5-year period
- enhanced capital allowances in certain areas – allowing companies to write off plant, machinery etc. more quickly for tax purposes
- simplified planning processes

**Examples of financial support for UK companies:**

**The British Business Bank**

The UK’s economic development for smaller businesses, supporting lending through its debt products and investment through equity products. The Bank will unlock up to £10 billion of new finance and bring greater choice and information on finance options to smaller businesses.

**UK Export Finance**

Provide support for export contracts of any size to over 200 overseas markets, by:

- Giving guarantees to banks and loans to overseas buyers to finance the purchase of goods and services from UK exporters
- Insuring UK exporters against non-payment by their overseas buyers
- Sharing credit risks with banks to help exporters raise contract bonds, access working capital and secure letter of credit confirmations

**Support for innovation**

**Offshore Renewable Energy Catapult**

Offshore Renewable Energy Catapult is the UK’s flagship technology innovation and research centre for offshore wind, wave and tidal energy. It delivers prioritised research underpinned by world-class test and demonstration facilities, collaborating with industry, academia and Government to reduce the cost of offshore renewable energy and create UK economic benefit.

*These funding support packages are complemented by Business Support and Advice that is delivered across the Devolved Administrations and through local Government across the UK*
The UK Green Investment Bank (GIB)

GIB’s purpose is to accelerate the UK’s transition to a greener economy. GIB was created by the UK Government, its sole shareholder, and capitalised with an initial £3.8bn of public funds.

GIB primarily invests in the offshore wind, waste and bioenergy and energy efficiency markets. Since its launch in November 2012, GIB has committed £1.6bn of capital to 38 projects, mobilising a total of £5.2bn*.

GIB has invested in five offshore wind projects, Walney, Rhyl Flats, Gwynt y Môr, Westermost Rough and the world’s largest, London Array.

In total, the bank has invested over £620m in the UK’s offshore wind sector, with a total capacity of over 1.8 GW of renewable power.

GIB invests directly in operational offshore wind farms and projects in the construction phase, allowing developers to recycle their capital.

Our vision: green and profitable

Our task: crowding-in capital

* As at October 2014. Find out more at www.greeninvestmentbank.com
The scheme is open until 31 December 2016.

Further information is available at:
https://www.gov.uk/government/publications/uk-guarantees-scheme-key-documents

Infrastructure UK, UK Guarantees Scheme

The Government has committed to providing up to £40bn in guarantees to UK infrastructure projects in order to progress development.

The scheme seeks to ensure that where major infrastructure projects may struggle to access private finance due to adverse credit conditions, these projects can still proceed.

Guarantees awarded to date include:
• Drax Power Station (£75m)
• Northern Line Extension (£750m)
• Mersey Gateway Bridge (£257m)

The Government has wide discretion over how a guarantee is structured.

As of April 2014, 40 infrastructure projects worth £37bn have passed the prequalification stage to make them eligible for the UK Guarantees Scheme.

Applications are made via Infrastructure UK.

The headline eligibility criteria are:

1 Nationally significant, as identified in the National infrastructure Plan. Other exceptional projects will be considered on a case-by-case basis.

2 Ready to start construction within 12 months from guarantee being awarded, and having obtained (or about to obtain) necessary planning and other required consents.

3 Financially credible, with equity finance committed and project sponsors willing to accept appropriate restructuring of the project to limit any risks to the taxpayer.

4 Dependent on the guarantee to proceed and not otherwise financeable within a reasonable timeframe.

5 Good value to the taxpayer, assessed by HM Treasury to have acceptable credit quality, not present unacceptable fiscal or economic risks and to make a positive impact on economic growth.
Support and contact information
Contacts

**UK Trade & Investment**

**Offshore Wind Investment Organisation (UKTI)**
address: 1 Victoria Street, London, SW1H 0ET  
web: www.gov.uk/ukti  
tel: +44 (0)20 7333 5442  
email: enquiries@ukti-invest.com

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**The Crown Estate**

**The Crown Estate**
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email: energyandinfrastructure@thecrownestate.co.uk  
twitter: @thecrownestate

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**Green Investment Bank**

**Green Investment Bank**
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tel: +44 (0)330 123 2167  
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**RenewableUK**

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