

# Offshore Wind Programme Board



Annual Report  
March 2015

# Contents

Ministerial Foreword.....	3
Co-Chairs Statement .....	4
Offshore Wind in the UK .....	7
Offshore Wind in Europe .....	8
Policy context: the package for offshore wind.....	9
Notable highlights since the last report .....	9
Offshore Wind Industrial Strategy .....	10
Cost Reduction Monitoring Framework .....	11
Development .....	11
Qualitative Assessment .....	11
Quantitative Assessment.....	11
Findings and Recommendations .....	12
UK Content Monitoring .....	13
Knowledge Management & Developer Days .....	14
Example of a River Diagram charting industry’s own assessment of best practice with objectives for medium term .....	14
Risk Committee.....	15
Calendar of meetings .....	15
Progress against the five OWIC priorities .....	16
Annex 1 – Membership and contacts .....	20
Annex 2 – Structure.....	20

**Cover image:** West of Duddon Sands wind farm (DONG Energy/ScottishPower Renewables courtesy of Chris James)

**Other images:** Thanks to UK Government, The Crown Estate, ORE Catapult and Seastar

# Ministerial Foreword



A handwritten signature in black ink that reads "Matthew Hancock".

**Rt Hon Matthew Hancock MP**

Minister of State  
for Business and Energy



A handwritten signature in black ink that reads "Arlene Foster".

**Arlene Foster MLA**

Minister of Enterprise,  
Trade and Investment



A handwritten signature in black ink that reads "Fergus Ewing".

**Fergus Ewing MSP**

Minister for Business,  
Energy and Tourism

Offshore Wind has a key role to play in enhancing our long-term energy security, decarbonising our economy, and creating a new source of jobs and growth for the UK. 2014 was a year of progress for the UK's Offshore Wind sector, with policy shifting to delivery, and the industry continuing to grow and rise to the challenge.

With the Energy Act having received Royal Assent at the end of 2013, early in the year the Government announced the five successful projects to be awarded early Contracts for Difference, which delivers to the sector a confirmed pipeline of over 3,000 MW, with additional development to be supported through the first round of allocation of Contracts for Difference. And as the pipeline has developed we have seen the supply chain opportunities beginning to be realised, as Siemens and ABP committed to invest over £300 million to build a turbine blade factory and service operation centre at Green Port Hull that will provide around 1,000 jobs,

and MHI Vestas announced their intentions for serial production of 80m blades, safeguarding or creating up to 800 jobs, to commence on the Isle of Wight. These are just some of the major highlights of 2014 that demonstrate that offshore wind is a growth sector and now is the time for the UK supply chain to step up to the crease to seize the opportunities on offer.

The UK Government and Devolved Administrations will continue to work closely with industry on our shared priorities as set out in the Offshore Wind Industrial Strategy. With the sector on the cusp of a substantial wave of investment and construction, the Offshore Wind Industry Council asked Matthew Chinn to review the UK Supply Chain and to look at the opportunities and barriers facing the supply chain to help ensure it is in the best possible position to get UK knowhow and content into offshore wind farms. Encouragingly, the review found that the UK supply chain has

already experienced considerable success and there are great stories to tell on operation and maintenance, array cables and substation manufacture. The review highlighted a number of different challenges and barriers that need to be faced and set out a series of recommendations to address the different barriers. We look forward to working with the industry on these recommendations, including drawing on best practice in other sectors.

We are also working together with Industry through the Offshore Wind Industry Council and Offshore Wind Programme Board to support the development supply chain. As we look to 2015 the key priorities going forward are;

- to build a sustainable, competitive and capable UK supply chain,
- demonstrate that costs are falling,
- create a skilled industry,
- address barriers to bringing innovations to market, and
- attract finance into the sector.

If the sector can achieve this then the UK will be well placed to build on its world-leading position in offshore wind.

Finally, we would like to express our gratitude to the OWPB and its various Working Groups on their hard work and the progress they have made in many important areas to support the sector. In particular, securing agreement to adopt industry wide reporting on UK Content. The approved methodology now means that there is an agreed way of doing this so that industry is consistent in how it measures and reports. This reporting helps industry hold itself to account on the commitment of 50% UK content, while charting progress and reporting to a wider public. The implementation of the Cost Reduction Monitoring Framework project is another important step in keeping pressure and focus on reducing costs. If the industry can continue its cost reduction trajectory it will be able to compete fairly on cost with other electricity generating technologies and become a key part of the energy mix in the 2020s and beyond.



Electricity generated by **offshore wind more than trebled between 2010 and 2013.**

# Co-Chairs Statement



**Hannah Brown**

Head, Industry and Investment, Office of Renewable Energy Deployment, DECC



**Adam Bruce**

Global Head of Corporate Affairs, Mainstream Renewable Power

This year's Annual Report sets out the significant progress made by the Programme Board towards its objectives of removing barriers to the deployment of offshore wind, facilitating growth of a competitive UK industry and delivering cost reduction.

The publication of the first results from the offshore wind cost reduction monitoring framework shows clearly that the cost of energy is falling, and this is very welcome. We expect this trend to continue over time and for the gap between cost of energy and support levels to continue to narrow.

2014 saw a number of other industry achievements that should be noted. The UK now has over 4GW of installed capacity, operating at an industry average 37.9% load factor<sup>1</sup>. The offshore wind sector delivered 13.4TWh of electricity onto the national grid over 2014<sup>2</sup>, an 18% increase on 2013.

In 2014 offshore wind generated enough electricity to meet the needs of almost 3.2m UK homes<sup>3</sup>. We estimate that the release of nearly six million tonnes of carbon dioxide equivalent into the atmosphere was avoided in 2014 through the generation of offshore wind compared with the alternative fossil fuel generation<sup>4</sup>.

---

1 Based on sites having achieved works completion at 1 January 2014 – Source The Crown Estate  
2 Generation returns for 2014 to The Crown Estate

The UK supply chain has also seen new investment in the last year, with significant developments from a number of companies including Siemens with Associated British Ports in Hull, MHI Vestas Offshore Wind on the Isle of Wight and Offshore Structures (Britain) in Teesside.

In early 2014 the Government awarded over 3GW of early Contracts for Difference (CfDs) to five offshore wind projects, which will allow these projects to be built over the next five years and contribute to meeting the 2020 renewable energy target. As we go to print, the UK is running the first CfD auction under Electricity Market Reform for low carbon projects and this should bring forward further capacity. In addition to projects supported under the Renewables Obligation this gives the industry and the supply chain a strong pipeline of projects to deliver.

2014 also saw the Programme Board develop from being the implementer of the recommendations of the Cost Reduction Taskforce to become the executive arm of the Offshore Wind Industry Council (OWIC). OWIC has committed to a funding package for the Board for 2015, and this will enable our work streams to take forward a number of projects.

The Board has adopted OWIC's five priorities, which now frame our work. These are set out below, and going forward, this Annual Report will also report on those priorities, which are:-

1. Build a sustainable, competitive and capable UK supply chain – capitalising on investments to date and the strong pipeline of UK projects we now have in place, to further develop UK industrial capacity
2. Demonstrate that costs are falling, and making sure that the message gets out to the wider world that this is happening

---

3 Assuming an average annual domestic electricity of 4,192kWh as per DECC's "Energy Consumption in the UK" of July 2014  
4 Assuming a 430g CO2 per kWh saving figure used by DECC.

3. Create a skilled industry – developing and promoting offshore wind as a sector where skilled people can build careers, and making the most of the expertise we have developed to date
4. Addressing barriers to companies bringing new innovations to the market
5. Attract finance into the sector, including making best use of the Green Investment Bank.

We are continuing to deliver on the objectives of the Offshore Wind Industrial Strategy, developed in partnership between Government and industry, and are taking forward the recommendations of the review of the offshore wind supply chain conducted by Matthew Chinn from Siemens - 'UK Offshore Wind Supply Chain: A Review of Opportunities and Barriers', which reported in 2014.

We continue to encourage industry collaboration, and our Knowledge Management programme, facilitated by The Crown Estate is making significant progress in identifying and adopting best practice across the sector. In 2014, recognising that offshore wind is a common resource across the North Sea, we led the creation of the Seastar Offshore Industrial Alliance, which is a collaboration between the British, Danish, German and Dutch industries to share best practice, identify common barriers to deployment, and drive cost reduction. This initiative will be formally launched at the EWEA Offshore conference in Copenhagen in March 2015, and we are working closely with member state governments and the EU Commission to move this initiative forward.

Industry members of the Programme Board are planning to produce a concise Vision Statement for the UK offshore wind sector covering 2018 to 2025. This work is aimed at giving an industry overview to the incoming Government in May 2015, and should complement other sector reviews, notably that of the Committee on Climate Change, which will report on its recommendations for sector development later this year.

This document will set out the benefits to the UK as the offshore wind sector continues to expand and drive down costs, and will make a series of recommendations on how to maximise the benefit to UK plc.

We have made solid progress through 2014 and we would like to record our thanks to the members of the Programme Board who have given significant amounts of their time to Board activity. We want to thank Ron Cookson, Tony Marsh, Clark MacFarlane, Benj Sykes and Stephen Trotter who left the Board in 2014, and to welcome Graham Meeks, Blair Ainslie, Dan Finch, Deirdre Fox, Hugh Yendole, Ray Thompson and Sean Kelly who have joined us.

We have worked closely with Keith Anderson, Benj Sykes, The Rt Hon Michael Fallon MP, The Rt Hon Matthew Hancock MP and their industry and government colleagues on OWIC, and with Dan Finch and Fergus Ewing MSP and their colleagues on OWIG.

Josh Willison of The Crown Estate has continued to provide support to the Board, and kept us on the right track.

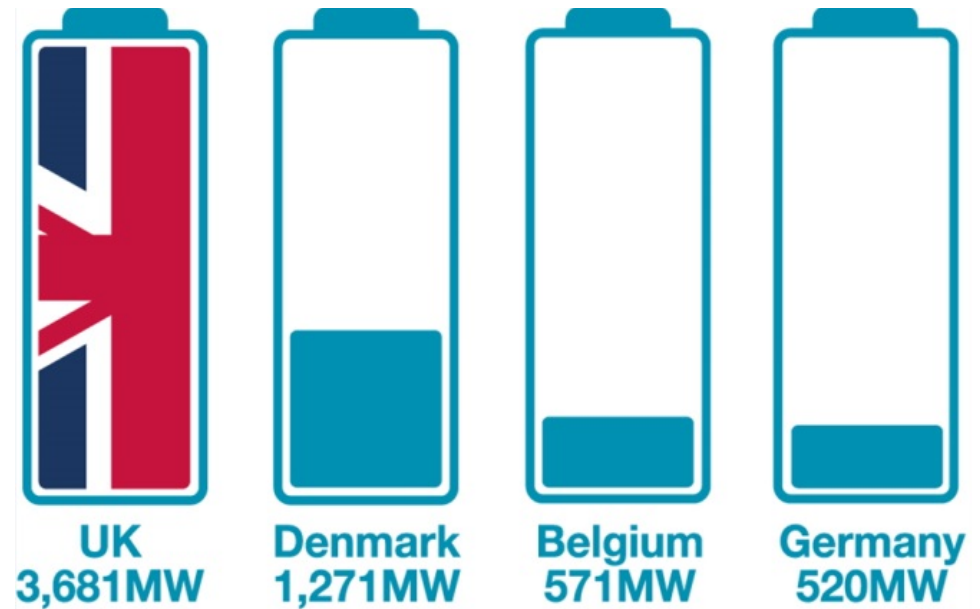
2015 will be another year of delivery for the UK offshore wind sector, and we look forward to reporting on progress next year.

## Offshore Wind in the UK

The potential for offshore wind deployment in the UK is huge. We have one of the most favourable locations for offshore wind in the world – with the benefit of shallow seas, strong winds, and population centres near the coast. That potential is already being realised; as of January 2015 the UK is the clear world leader with 5GW of offshore wind in operation or under construction. Over one thousand offshore wind turbines have already been installed and the UK is the most attractive destination for investment in the world<sup>5</sup>.

Offshore wind is the most scalable renewable technology which offers an unmissable opportunity to develop a competitive UK based supply chain, and announcements by Siemens, MHI Vestas Offshore Wind and others in 2014 show how the UK is attracting significant investment in offshore wind manufacturing.

For the sector to deliver on its potential however, ongoing cost reduction is essential and industry must be able to demonstrate the economic benefits to the UK, alongside the clear carbon benefits of offshore wind generation. Given this, supporting industry and reporting on i) progress in delivering cost reduction and ii) increasing UK content have been two of the OWPB's main areas of work in 2014.



**The UK is number 1** in the world for installed offshore wind capacity (2013 data).

5 Ernst & Young Renewable Energy Country Attractiveness Index

# Offshore Wind in Europe

Working with partners is an increasingly important part of OWPB's work. 2014 saw the formation of the Seastar Alliance to help drive cross-European action on offshore wind cost reduction and deployment.

It comprises the OWPB in partnership with Dansk Energi, Stiftung OFFSHORE-WINDENERGIE and TKI Wind op Zee, as the representative bodies from Denmark, Germany and the Netherlands. Together these countries contain over 20GW of offshore wind generation capable of construction and operation by the early 2020s.

With the importance of volume and pipeline to the delivery of cost reduction and operational efficiencies in this sector, there is a clear imperative to combine across northern seas markets to share best practice and identify and remove barriers to deployment. Industry is increasingly clear that lessons from one country must be picked up and applied in others, and that we should think of the offshore wind market as a European market.

The EU2030 climate and energy package, and the creation of the Energy Union which will prioritise better grid connections, improved security of fuel supply and greater efficiency, makes the northern seas a clear candidate to become a regional electricity market, with offshore wind the leading low carbon technology that can be delivered at scale in this region through the next decade.

By 2025, offshore wind will develop into a significant industrial sector of European excellence that contributes substantially to a sustainable energy supply, improving at the same time security of supply and competitiveness, and creating jobs in many industrial sectors across the EU.

Because of this the OWPB was a founding member of Seastar. It will act as an industry driven offshore wind alliance of European excellence with partners working to strengthen regional cooperation and to work in partnership with European and national bodies and authorities towards its initial aims of:

- **Cost reduction:** delivering certainty and commitment to lower the levelised cost of energy, enabling the development of at least 30GW connected to the grid by 2025 in the UK, Germany, Denmark and the Netherlands, and adopting a common cost reduction monitoring framework
- **Knowledge Management:** sharing best practice and seeking common solutions and standards, leading to world class performance and the opportunity to strengthen and further develop a global industry in Europe
- **Grid development:** enhancing system security (through the utilisation of a European offshore wind power resource), grid integration (meshed, networks and interconnectors) and creating common ground for economically viable investments in a northern seas grid.





# Policy context: the package for offshore wind

The UK needs to meet the overarching EU renewables target to deliver 15% of energy from renewable sources by 2020. Support for offshore wind is a key part of this, based on a strategy of investing early in a scalable technology where the UK has real potential, to support cost reduction and industrialisation. The support provided to the sector is designed to deliver the volume necessary to help achieve cost reduction and give the supply chain the confidence to invest. Over the last year this support has helped the industry continue its strong and successful growth trajectory – there is now over 4GW operational, a further 1GW in construction, another 3.2GW has support from early CfDs, and more development is likely to be supported through the first CfD allocation round or through the RO. The trajectory for the sector set out in the Delivery Plan is well on its way to being realised.

During 2015 the Government's key priorities will be to work with the sector, through OWIC and OWPB, to build a sustainable, competitive and capable UK supply chain, demonstrate that costs are falling, create a skilled industry, address barriers to bringing innovations to market and attract finance into the sector. If the sector can achieve this then the UK will be well placed to build on its world-leading position in offshore wind.

## Notable highlights since the last report

Since the last annual report some of the main highlights relating to offshore wind are:-

- **EMR** is moving from the policy development phase to delivery. Some of the key aspects during the year relating to the sector are:-
  - Five offshore wind projects, for 3.2GW of capacity, were awarded Investment Contracts under the **Final Investment Decision enabling for Renewables** [FIDeR] scheme. Investment Contracts are early Contracts for Difference and will allow projects to

proceed at an earlier stage. Two of these projects have since reached FID

- **The first CfD allocation round** is underway (at time of writing), with funding to provide support for additional offshore projects.
- **Cost Reduction Monitoring Framework** – agreed a framework with the offshore wind industry to monitor cost reduction, and conducted the UK's first in-depth assessment of progress.
- **UK Content Methodology** – agreed a methodology to measure and report on the level of UK content in offshore wind farms for all projects achieving FID from 1 January 2015.
- Announced the creation of a **National College for Wind Energy** to support development of the skills needed in the industry.
- Matthew Chinn was invited by OWIC to **examine the scale of the opportunity for the UK supply chain from offshore wind deployment**. His report *'The UK Offshore wind Supply Chain: a Review of Opportunities and Barriers'* was published in November 2014 and its recommendations are being taken forward by OWIC and OWPB. These focus primarily on:-
  - The need for clarity on the long term market, including a 2030 emissions target for the power sector;
  - Consistent messaging from Government;
  - Government, developers and the supply chain working together to help new market entrants;
  - Actions on commercial issues, including the development of performance bonds.
- **The UK offshore wind supply chain is continuing to grow**, develop and attract investment, with industry and Government working together through the offshore wind industrial strategy to achieve this.

# Offshore Wind Industrial Strategy

Government and industry made a joint commitment to deliver the offshore wind industrial strategy, published in August 2013, with OWPB taking forward a number of the actions in the strategy. The purpose of the strategy is to build a competitive and innovative UK supply chain for offshore wind that delivers economic growth and jobs.

The last year has seen several exciting industry investment announcements, which will deliver significant growth in the sector. Siemens will manufacture blades in Hull, MHI Vestas Offshore Wind will manufacture blades on the Isle of Wight and Offshore Structures (Britain) will fabricate foundation structures on Teesside. In addition, many UK supply chain and service companies continue to be successful in winning work in other European energy markets.

Employment remains healthy, despite a fall in construction rates in 2014 compared to 2013. In the last year we have seen project timelines lengthen, as companies have worked to manage project bottlenecks and adjusted timelines accordingly. Employment has remained largely stable, with industry managing to maintain its skills base even in less busy periods of construction. The offshore wind sector is currently busy with a number of projects now in construction and with UK manufacturing ramping up. This means that the offshore wind industry is likely to see jobs growth in the next few years. At the end of 2014, RenewableUK estimated that our industry employs 12,990 people directly or indirectly.

The industrial strategy is supporting this growth in the sector through work in five areas, with the OWPB workstreams providing support and taking forward action where they are best placed to do so:

- Providing market confidence and demand visibility – including through transparency on project timelines and Share Fair events run by the industry, underpinned by the Government’s Electricity Market Reform programme
- Building a competitive supply chain – including through the work of the Offshore Wind Investment Organisation in UKTI alongside advice and grant support provided by the GROW:Offshore Wind programme in England and the Offshore Wind Expert Support Programme in Scotland.
- Supporting innovation – including through the work of the Offshore Renewable Energy Catapult centre, and initiatives such as the POWERS (Prototyping for Offshore Wind Energy Renewables Scotland) and Scottish Innovative Foundation Technologies (SIFT)
- Finance – including through the provision of finance by the Green Investment Bank and British Business Bank
- Building a highly skilled workforce – including by the development of a National College for Wind Energy.

The next steps in the industrial strategy programme are being informed by the outcome of the offshore wind supply chain review undertaken by Matthew Chinn, which is enabling Government and industry to focus on priority actions to enable further growth in the supply chain.

# Cost Reduction Monitoring Framework

2014 has seen the development and implementation of a Cost Reduction Monitoring Framework (CRMF) for the offshore wind industry. This work has been led by the Offshore Renewable Energy (ORE) Catapult and sponsored by the developer members of the Offshore Wind Industry Council with additional support from The Crown Estate, the Department for Energy and Climate Change, DNV GL and Deloitte.

## Development

The CRMF is building on The Crown Estate's Cost Reduction Pathways works completed in 2011/12. The CRMF has reviewed this approach and where possible has used the methodology and experience generated in the Pathways project to shape the assessment completed in 2014.

The assessment has evaluated both the quantitative (retrospective) and qualitative (forecast) performance of the offshore wind industry in reducing cost, with different contractors employed to deliver each package to ensure an independence of assessment. The design work commenced in July, with sign off from OWPB's risk committee secured in September 2014.

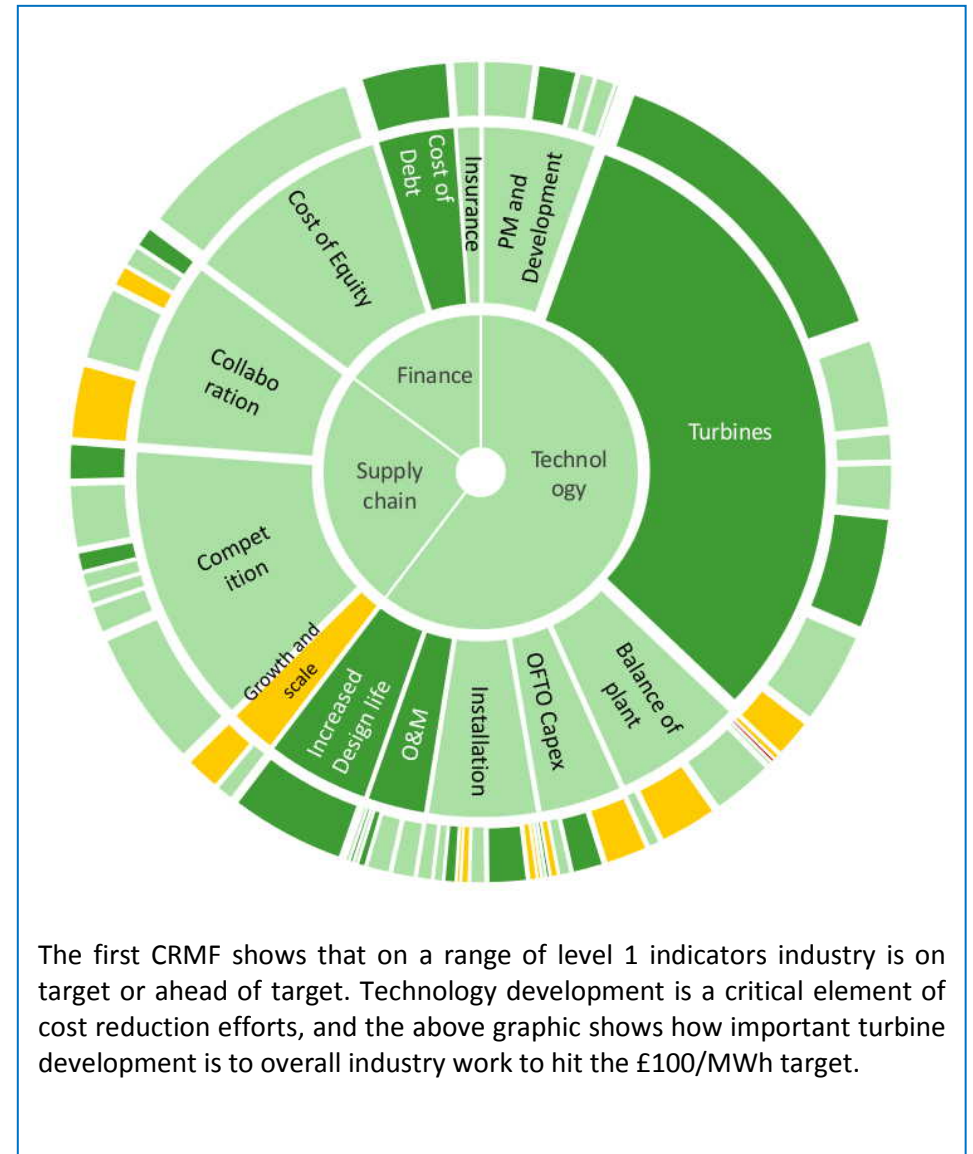
## Qualitative Assessment

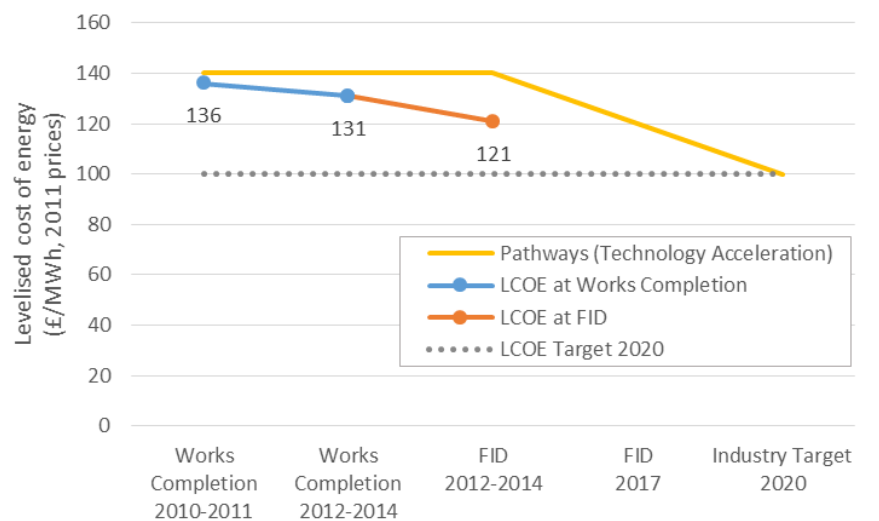
This work was led by DNV GL. It involved an extensive evidence gathering exercise across industry with interviews and questionnaires gathering market intelligence about the progress of technology innovation and the development of commercial and financial models for wind farm delivery. This evidence has been used to aid assessment against agreed cost indicators and assist in identifying the recommended actions or support required to manage the indicator progress in the future.

## Quantitative Assessment

Gathering accurate data while respecting commercial sensitivity of projects has been an abiding concern of this project. The assessment was conducted by Deloitte and involved assessing all projects which have taken a successful FID or reached works completion during the assessment period

(2010-2014). As such this assessment of the Levelised Cost of Energy of offshore wind is the most representative ever generated in the UK.





The CRMF shows that costs are falling over time from 2010 to 2014, when comparing completed projects and those which have passed Final Investment Decision.

Key factors developers report as impacting on cost are:

- Falling turbine and foundation costs
- Challenging supply chain relationships
- Lack of required skills and expertise

### Findings and Recommendations

The initial findings are being presented alongside this 2<sup>nd</sup> Annual Report. The CRMF has found that the cost of energy from offshore wind farms has fallen by almost 11% over the past four years, ahead of schedule on its path to delivering the shared industry and UK Government target of £100/MWh by 2020. The cost of energy from offshore wind has come down from £136/MWh in 2010 to £121/MWh for projects delivered or moving to construction between 2012 and 2014. This is ahead of Cost Reduction Pathways projections, meaning that industry is ahead of schedule on its path to deliver the UK Government’s target. Reductions are being achieved largely by progress in the development of larger turbines, foundations, improvements in operations & maintenance and extended design life. Progress is also being made in cost and availability of finance and across the supply chain. 6MW machines are now being rolled out, compared to the ~3MW turbines that were standard until recently.

Confidence in long term market prospects was the catalyst for industry investing in commercial manufacture of these larger machines. Forward visibility of the market helped instil confidence and is leading to UK investment in manufacturing facilities.

However, the report also highlights that sustained growth in the offshore wind sector will bring investment by the supply chain in the required technology innovations, depending on the scale of growth. It states that “whilst good progress has been made there are risks to continued cost reduction, the supply chain, including turbine manufacturers, does not have sufficient confidence in the size of the market beyond 2020 to justify making the technology investments which will drive cost reduction further”.

Following publication, the OWPB will review the findings and recommendations and continue work supporting ongoing cost reduction. Monitoring of progress by OWPB will be important to ensure our industry maintains the confidence of Government and consumers in its ability to deliver cost reduction and to meet, or indeed exceed, targets set for 2020.

# UK Content Monitoring

In November 2014 OWIC agreed the adoption of an industry wide reporting on UK content. The development of this work was led by DECC, The Crown Estate and RenewableUK for OWPB and OWIC.

DECC and TCE commissioned BVG Associates to develop a proposed methodology for how industry could measure levels of UK content. Following OWPB review and industry consultation and discussion across 2014, a final methodology has now been agreed for adoption by industry.

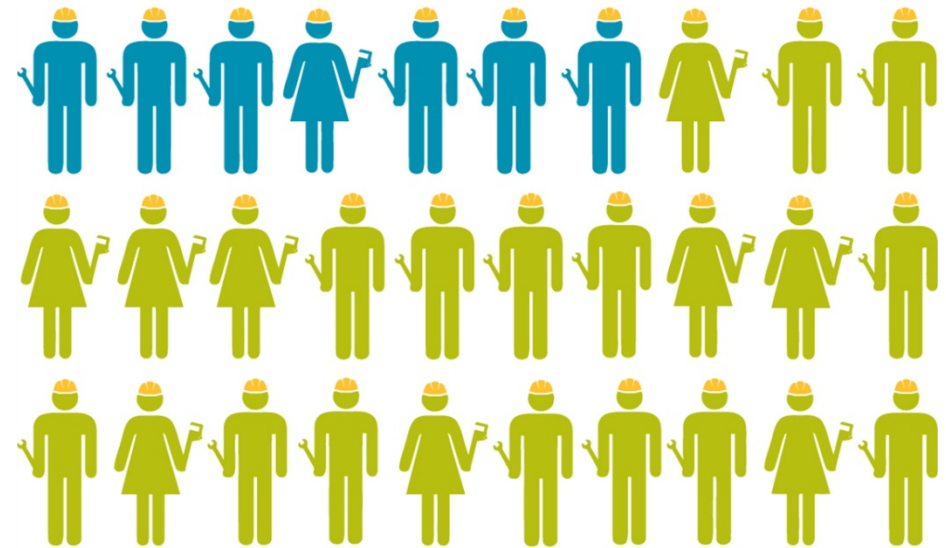
RenewableUK will coordinate industry reporting, with first data being submitted by industry in spring 2015 for publication in summer 2015. RenewableUK is working with partners and BVG on production of guidance and a finalised methodology report.

While many companies already report on UK content as part of their site launches, the methodology now means that there is an agreed way of doing this so that industry is consistent in how it measures and reports. While companies can continue to report on individual sites, RenewableUK will ensure that there is an overall UK figure. This reporting helps industry hold itself to account on the commitment to 50% UK content, while charting progress and reporting to a wider public. Importantly this figure will show total UK content and break this down into the three main phases of development (devex), manufacture & construction (capex) and operation (opex).

The first set of data will cover sites constructed between 2009 and 2014, and subsequent annual reporting will update this to give a rolling five year tally. The reporting has been structured like this to help (a) show direction of travel over time and (b) highlight in which parts of the value chain the UK can do more. Not surprisingly, initial data is showing that the UK has done best in securing contracts in the development and operational phases of offshore wind. However, with Siemens and MHI Vestas Offshore Wind announcing UK sites, and other major supply chain companies winning

contracts, it is expected that UK content on capex will rise markedly in the next few years.

Offshore wind energy has many challenges in delivering new generation in the UK. It needs to deliver while demonstrating it is bringing down cost and increasing UK content. The OWPB's work on UK content monitoring takes the industry a long way forward in being able to report on how well UK firms are doing in winning offshore wind work.



There are 6,830 jobs in the sector, growing to a possible **30,000 by 2020.**

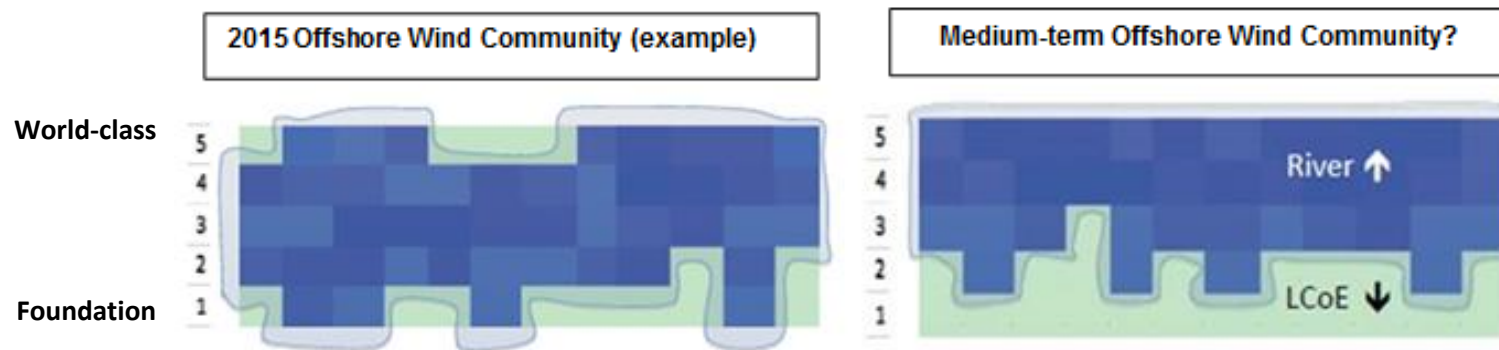
# Knowledge Management & Developer Days

The Crown Estate has now hosted five Developer Days, each chaired by Adam Bruce of the OWPB. The Developer Days are aimed at achieving cost reduction in offshore wind through sharing best practice and knowledge across the UK offshore wind programme. Developer Days are attended by Project Directors from UK offshore wind projects across all leasing rounds. A key theme is a Project Director sharing their project experience in some detail so that others can avoid pitfalls and realise opportunities. Specific topics are also explored e.g. contracting strategy and grid connections.

At the November Developer Day, the Knowledge Management approach to sharing best practice was explored further. The results of the pilot programme to run the self-assessment common model with a number of actual projects to collect real-life data on capabilities was presented. Discussion was held on how the Community of Practice can work together to focus on key areas and further the capabilities of the industry through sharing best practice where needed – realising the river diagram below.

The model is being used to develop a Knowledge Management system to facilitate cost reduction in offshore wind by connecting projects with OWPB workstream activity, to share best practice.

In addition to building the UK picture, the approach now includes a European dimension where we are seeking input from the German offshore wind programme. It emerged at the recent Developer Day that there are a number of common issues that can be worked on collaboratively. We will be exploring this new avenue further during 2015.



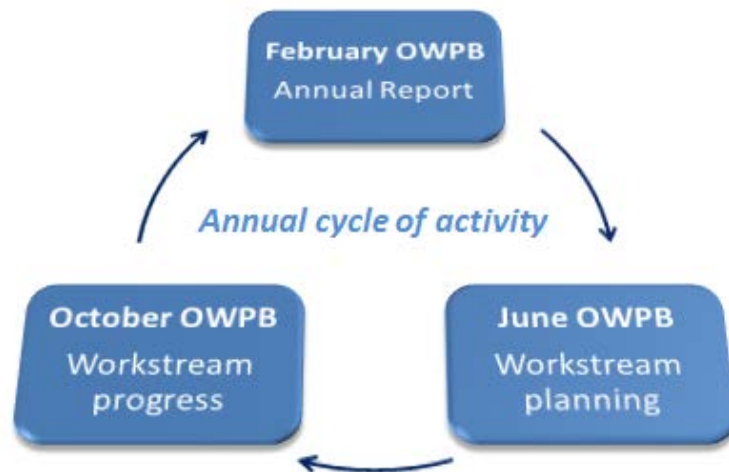
Example of a River Diagram charting industry's own assessment of best practice with objectives for medium term

## Risk Committee

The Risk Committee is the principal sub-committee of the OWPB. It comprises a number of OWPB members all of whom are senior industry representatives. It holds a programme management function and has created appropriate programme tools, including the Programme Board risk register, heat map, and mitigation plans. It is responsible for identification, assessment and escalation of key emerging risks. The Committee then reviews and revises mitigation strategies as risks evolve. The mitigation strategies help formulate a cohesive work plan.

The Risk Committee comprises the eleven risk owners and is chaired by Alastair Dutton. It meets six times per year to synchronise with OWPB and OWIC meetings. A key task in 2014 was for the Risk Committee to pull together a reasoned funding request for the programme. In December 2014, OWIC approved a budget of £240k from private industry companies plus £245k of in-kind resource from public bodies. This funding will allow OWPB to gear up its activities on cost reduction in 2015.

Progress on CRMF provides a new tool for the Risk Committee. In particular the leading indicator highlights where effort should be focused for best results.



## Calendar of meetings

2015 Schedule of Meetings			
	OWPB Risk Committee	Offshore Wind Programme Board	Offshore Wind Industry Council
January	•		
February		•	
March	•		•
April			
May	•		
June		•	
July	•		•
August			
September	•		
October		•	
November	•		•
December			

# Progress against the five OWIC priorities

## 1. Building a sustainable, competitive and capable UK supply chain – capitalising on investments to date and the strong pipeline of UK projects we now have in place, to further develop UK industrial capacity

**Project Timelines** – RenewableUK now publishes an annual review of offshore project timelines. With information submitted by developers, Project Timelines is now seen as a reliable indicator of how developers plan to build out UK offshore wind projects in the years ahead. The timelines are updated each year with OWIC/OWPB backing to take account of changes and experience gained over time.

**Eliminating losses report** – This details lessons learnt in avoiding losses across the supply chain elements together with a proposal for how the supply chain can share good practice on an ongoing basis and how this could be coordinated and integrated with the other shared knowledge initiatives being worked by the OWPB. The report will be released in spring 2015.

**UK Offshore Wind Supply Chain: A Review of Opportunities and Barriers** – On 12th November 2014 the Rt Hon Michael Fallon MP and Benj Sykes, launched an independent review of the offshore wind supply chain in the UK. Conducted by Matthew Chinn of Siemens, the objective was to understand what more could be done to support the development of the UK supply chain, in order to capture maximum economic benefit from the UK's position as the world leader in offshore wind development.

OWIC will respond in full to all 24 recommendations in the report and has identified the following priority actions on which to get to work on immediately:

- i. Industry, through OWIC, needs to take a much more assertive approach to telling the success story of offshore wind in the UK to a wide audience (Recommendation 1);
- ii. Government and industry should work together, through OWIC, to articulate a simplified message about the size of the supply chain opportunity (Recommendation 3);
- iii. OWIC should work to identify improved forms of contract for the offshore wind sector in the UK, which provide for a collaborative relationship between developers and the supply chain – focusing first on the principles of a good contract, not a model contract (Recommendation 15);
- iv. Industry should, through OWIC, build consensus about the appropriate level of bonding and challenge punitive levels of bonding where it occurs. They should work with the finance industry to develop alternative options that genuinely mitigate the risks arising from the suppliers chosen (Recommendation 16);
- v. Industry should continue to work together through OWIC to explore the extent to which standardisation is currently possible and practical and agree actions to deliver on those areas (Recommendation 20);
- vi. Government should seek to discuss with its northern European counterparts how all countries can maximise the supply chain benefits of the wider European market (Recommendation 21);
- vii. Government should simplify existing initiatives to keep on improving its help for companies throughout the supply chain to help them better navigate the large array of support mechanisms that exist. This may mean better signposting, rather than ever new initiatives (Recommendation 22).



## 2. Demonstrating that costs are falling, and making sure that the message gets out to the wider world that this is happening

**CRMF** – The publication of the first CRMF report accompanies this Annual Report (see above). Led by OWPB’s Risk Committee on behalf of industry, OWPB has played an important coordinating role in securing industry agreement and delivering the project.

The **Grid Group** has established a target to facilitate reducing transmission costs by between 20-30% for an offshore wind project taking FID in 2020 relative to costs currently seen in the market. The Group believes cost reduction of this order is achievable by focussing on two key areas: (i) better design at the pre-FEED stage and (ii) improved implementation, and a workplan has been built around these two areas. This includes initiatives such as (a) overcoming barriers to using fewer higher-capacity cables; (b) investigating methods of combining turbine and offshore substation structures; (c) recommending ways to optimise deployment of static var compensators and harmonic filters at a system level; and (d) improving knowledge sharing across the sector to help drive best practice. The recent agreement on the OWPB resourcing package means work in these areas to can now be progressed in earnest.

## 3. Creating a skilled industry – developing and promoting offshore wind as a sector where skilled people can build careers, and making the most of the expertise we have developed to date

Supporting the development of skills in supply chains is one of the three criteria for the Supply Chain Plans which developers of large offshore wind farms are now required to prepare before applying for a Contract for Difference. This reflects the importance of skills development in providing confidence that offshore wind projects will make a material contribution to the economic growth of the industrial supply chain.

The Humber LEP and RenewableUK worked with BIS and leading offshore wind companies to develop and launch a **National College for Wind Energy** in December 2014. RenewableUK’s Renewables Training Network has also worked alongside industry training providers to launch a series of industry backed training courses and materials, including the first modules of a new Blade Repair Assessment and Inspection Course.

In **Scotland**, the Energy Skills Investment Plan was produced by Skills Development Scotland, and there has been considerable progress in developing supply, and in the numbers being trained. The SIP, overseen by an employer-led Energy Skills Action Group, has encouraged stronger cohesion and integration across the skills supply side, and is currently being refreshed.

**Careers mapping** – RenewableUK is mapping wind and marine energy sector job roles to relevant qualifications and experience required to increase the understanding of wind and marine energy careers and communicate skills needs to relevant stakeholders. RenewableUK launched a publicly available pilot online interactive resource in November 2014 that details job roles in the industry with the qualifications, training and experience required for each role in an organogram structure.

**Inspiring school children** – The Oil and Gas, Nuclear and Offshore Wind Industry Councils have been working together to find a solution to increase awareness amongst school children of how energy is produced and used. The objectives for this work are to equip school children to debate energy issues and understand the difficult decisions that need to be made and inspire school children to consider careers in the energy sectors. OPITO (the oil and gas skills body) has commissioned a scoping study which will map the existing landscape of interventions which help children understand how energy is produced and used, explore where gaps exist and make recommendations for effective interventions that industry can make in this area.

**Norstec** – Norstec is the northern European industry network dedicated to improving public perception of offshore renewables. In May 2014 Norstec launched the Norstec Academy ([www.NorstecAcademy.org](http://www.NorstecAcademy.org)), a programme that showcases the industry to students in higher education. The Norstec Academy's first initiative invited students to write an essay on what inspires them about offshore wind in order to win one of 20 places on a week-long tour of the UK industry.

The winners were shown the wide variety of job types, and the range of businesses was reflected in the students themselves, including engineers, geologists, nuclear physicists and law students. The project reached over 2 million impressions on social media and each of the winners wrote a blog for the website and continues to engage with the industry via Norstec. In 2015, subject to funding, the Norstec Academy will run a new programme of tours.

**Wind and Marine Training Network** – In Scotland, the Energy Skills Partnership (ESP) has been established to develop a co-ordinated response across the college network, to develop demand-led provision across the energy sector. The ESP is actively engaged with SDS and industry partners including Scottish Renewables, RenewableUK, NSAP, OPITO, Siemens, Scottish Power and SSE and as a result has established a formal **Wind and Marine Training Network**.



UK offshore wind industry has the potential to deliver in the order of **£7 billion each year** Gross Value Added (GVA) to the UK economy by 2020.

#### 4. Addressing barriers to companies bringing new innovations to the market

The Technology and Innovation work stream has engaged with both the Cost Reduction Monitoring Framework (CRMF) project and the Offshore Wind Technology Innovation Needs Assessment (TINA) refresh. This will enable future public sector funding for offshore wind innovation to be aligned with the CRMF findings on the progress of technology innovation against milestones.

**Openness sharing** – The Innovation work stream has led a project to increase Knowledge Management across the OPWB work streams, this will lead to a workshop in early 2015 with the aim of learning about the recent application of Knowledge Management to drive cost reduction in the offshore wind developers' community. Another aim is to increase the value from networking amongst suppliers and to plan together how best to apply Knowledge Management. There will be follow-up work and a submission to OWIC in summer 2015 on how to take matters forward.

#### 5. Attracting finance into the sector, including making best use of the Green Investment Bank

**UKTI offshore wind pitch book** – *UK Offshore Wind: Opportunities for Trade and Investment* is now available to [download](#). It is 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.

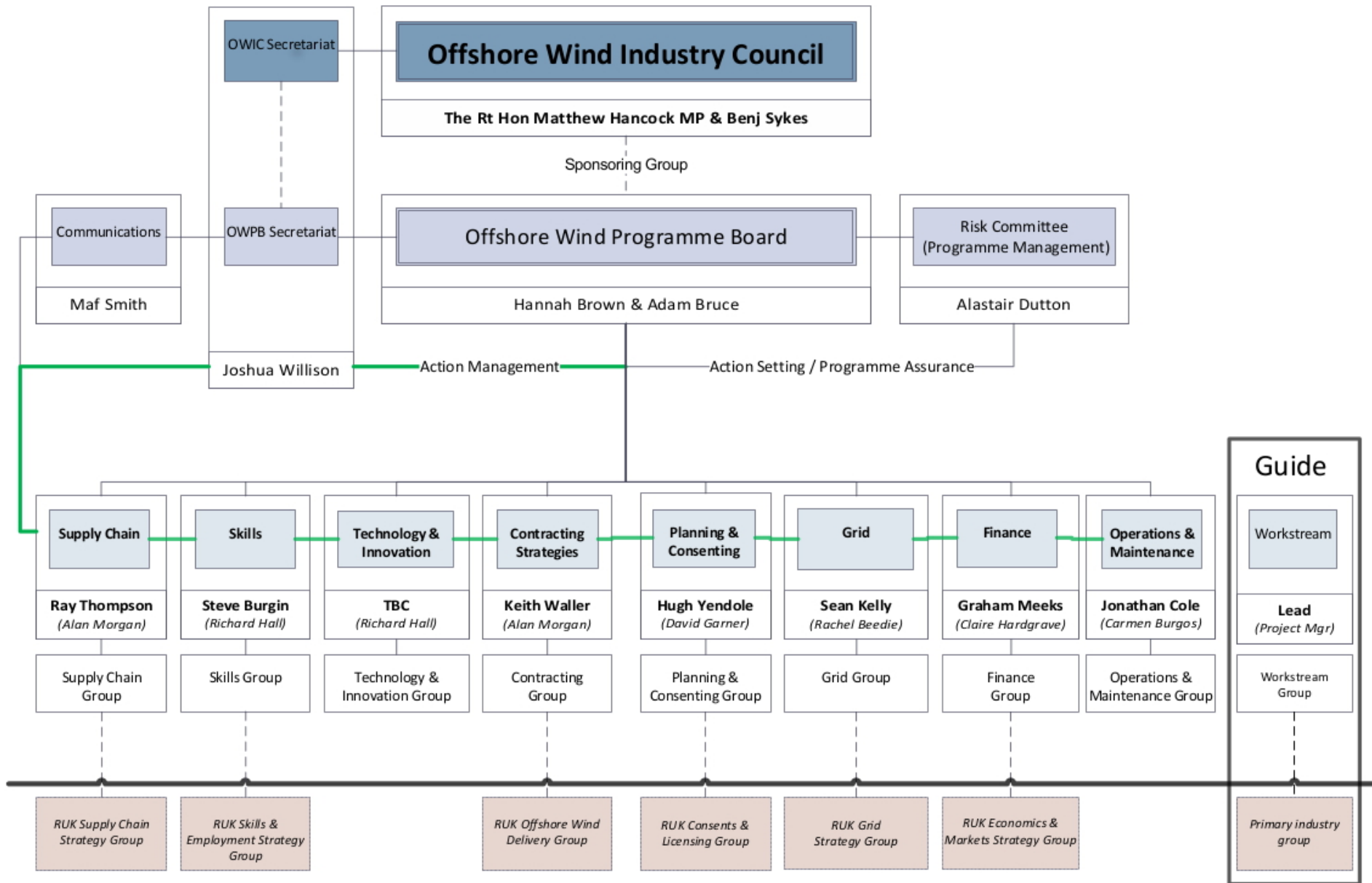
The DECC Investor Relations team continues to engage proactively with the investor community, building an appreciation of the policy landscape and measures supporting investment in the offshore wind sector. This work has gone a considerable way to preparing the finance market for the introduction of the CfD regime.

## Annex 1 – Membership and contacts

Member	Organisation	Job Title
Adam Bruce	Mainstream Renewable Power	Global Head of Corporate Affairs
Hannah Brown	DECC	Head Industry and Investment, ORED
Blair Ainslie	Seajacks	Chief Executive Officer
Steve Burgin	Alstom	Regional Vice President Alstom Power, Northern and Central Europe
Jonathan Cole	ScottishPower	Managing Director - Offshore
Paul Drabwell	BIS	Interim Deputy Director, Green Economy Team
Alastair Dutton	The Crown Estate	Strategic Programme Manager
Dan Finch	EDPR UK	Managing Director
Deirdre Fox	Tata Steel	Director Strategic Business Development
John Goold	JNCC	Director of Marine Advice
Andrew Jamieson	Offshore Renewable Energy Catapult	Chief Executive Officer
Sean Kelly	Transmission Capital	Partner
Graham Meeks	Green Investment Bank	Policy Director
Maf Smith	RenewableUK	Deputy Chief Executive Officer
David Stevenson	Scottish Government	Head of Offshore Wind Policy
Ray Thompson	Siemens	Head of Business Development - Offshore UK
Keith Waller	Infrastructure UK, HM Treasury	Senior Adviser
Hugh Yendole	DONG Energy	Portfolio Asset Manager

Workstream contacts		
OWPB Secretariat	Joshua Willison, The Crown Estate	Joshua.Willison@thecrownestate.co.uk
Skills	Richard Hall, BIS	Richard.Hall@bis.gsi.gov.uk
Technology & Innovation	Richard Hall, BIS	Richard.Hall@bis.gsi.gov.uk
Contracting	Alan Morgan, DECC	Alan.Morgan@decc.gsi.gov.uk
Planning & Consenting	David Garner, DONG Energy	DAVGA@dongenergy.co.uk
Grid	Rachel Beedie, ORE Catapult	Rachel.Beedie@ore.catapult.org.uk
Finance	Claire Hardgrave, BIS	Claire.Hardgrave@bis.gsi.gov.uk
O&M	Carmen Burgos, ScottishPower	cburgos@scottishpower.com
Supply Chain	Alan Morgan, DECC	Alan.Morgan@decc.gsi.gov.uk

# Annex 2 – Structure



# Offshore Wind Programme Board

[www.thecrownestate.co.uk/energy-and-infrastructure/offshore-wind-energy/working-with-us/offshore-wind-programme-board](http://www.thecrownestate.co.uk/energy-and-infrastructure/offshore-wind-energy/working-with-us/offshore-wind-programme-board)