

Scottish Renewables written evidence to the House of Commons Environmental Audit Committee inquiry into Technological Innovations and Climate Change: Offshore Wind

About Scottish Renewables

Scottish Renewables is the voice of Scotland's renewable energy industry. The sectors we represent deliver investment, jobs, social benefits and reduce the carbon emissions which cause climate change. Our members work across all renewable energy technologies, in Scotland, the UK, Europe and around the world. In representing them, we aim to lead and inform the debate on how the growth of renewable energy can help sustainably heat and power Scotland's homes and businesses.

Executive Summary

Scottish Renewables welcomes the opportunity to provide written evidence to the House of Commons Environmental Audit Committee inquiry into Technological Innovations and Climate Change: Offshore Wind and our submission addresses the questions where it is appropriate for us to provide a response.

Response to questions

How effective has the Government's offshore wind Sector Deal been in moving the sector towards becoming an integral part of a low-cost, low-carbon, flexible grid system and boosting the productivity and competitiveness of the UK supply chain?

1. The publication of the Offshore Wind Sector Deal last year was a significant achievement of collaboration between government and industry. This has established a strategic direction for all those involved in offshore wind and has addressed the challenges and opportunities ahead. National workstreams, regional clusters and funding mechanisms have all been set up.

The emphasis must now be on determined, focused efforts to remove barriers to industry growth and to pursue supply chain opportunities. While the vast majority of offshore deployment over the next decade will be fixed-bottom, the UK, and Scotland in particular, could establish a global lead in floating wind if it acts quickly to take advantage of existing deep water expertise.

2. In October last year, Scottish industry leaders and the Scottish Government announced the formation of the Scottish Offshore Wind Energy Council (SOWEC) to address the specific challenges and opportunities faced by the industry in Scotland. Its current ambition is to see 8GW of deployment in Scottish waters by the end of the decade and has set up a range of workstreams to support this.

The effectiveness of both the UK Sector Deal work under The Offshore Wind Industry Council /Offshore Wind Growth Partnership and SOWEC would be enhanced by greater collaboration between the UK and Scottish Governments to achieve shared aims around reserved matters such as aviation, defence systems and Contracts for Difference (CfD).

What level of output can the sector deliver in the UK, and what Government support would be needed to achieve this?

3. Scotland's renewable energy industry is confident that, with the right support, it can deliver a very substantial contribution to the UK net-zero energy mix by 2050. The Committee on Climate Change suggests that 75GW of offshore wind could be required by 2050, and Scottish Renewables has proposed that Scotland could seek to deploy 30-35GW of this to take advantage of our excellent wind resources.

The UK Government can support the offshore wind industry in Scotland to increase energy generation. Government can work to ensure long-term visibility of future seabed leasing by The Crown Estate and Contract for Difference (CfD) allocation rounds. In order to speed up deployment, it would be helpful to see a move from biennial to annual CfD allocations. Leadership is needed to remove the barriers industry faces to consent and better facilitate coexistence between all users of the sea. Government should rethink the transmission network charging regime, which penalises Scottish generation projects. Resourcing needs to be increased for English environmental and regulatory bodies and close working encouraged with Scottish counterparts.

How might the UK take advantage of further technological advances in offshore wind technology, particularly in relation to floating arrays?

4. Scottish Renewables and RenewablesUK jointly published *Floating Wind - The UK Industry Ambition* in October 2019. This paper advocates three key enablers to advance the offshore wind industry; a competitive market framework, marine spatial planning and leasing processes which enable development and joint investment between government and industry.

We welcomed the recognition of floating wind in the current CfD consultation with dedicated proposals for a separate definition and administrative strike price. The Government should build on this further by committing to an auction minima for floating wind, to ensure that a sufficient number of pre-commercial projects are deployed over the decade to bring down costs to a level competitive with fixed-bottom technology.

5. The UK Government can take further action to support the development of offshore wind. This should include support for the industry-led Floating Wind Centre of Excellence. Investment is needed in enabling infrastructure such as ports which could be jointly invested in by government and industry. Recognising the energy transition and the need to grow the offshore wind workforce, support should be provided to by the UK Government to enable the reskilling of oil and gas professionals, with collaboration taking place with The Scottish Government on devolved responsibilities.

What support does the sector require to keep pace with the most cutting-edge innovations, such as in blade technology?

6. The Offshore Renewable Energy Catapult's blade testing services are a critical facility for industry as we see a rapid shift towards larger and more efficient turbines. Scotland is pleased to host the 7MW Levenmouth Demonstration Turbine, which has enabled over 100 trial projects and now has a license to operate until 2029. Also in the Firth of Forth, the University of Edinburgh and Babcock are constructing FASTBLADE, a two point four million pound structural composite testing research facility that will examine tidal turbine blade among other areas, with benefits to all sectors using composite materials. Continued Government support for research and development through UK innovation programmes will be essential for maintaining our global expertise in the offshore sector.

What is the UK industry doing to promote the sustainability of offshore wind arrays throughout their entire life-cycle from development through to decommissioning, and to improve maintenance and end-of-life repair?

7. Just as onshore wind is currently exploring the potential of repowering wind farms that are approaching the end of their lifespans, offshore wind developers are constantly reviewing their projects to ensure maximum efficiency of deployment, for instance, fewer turbines with higher capacities. Current work on offshore transmission reform (see below) has the potential to deliver

considerable efficiencies and resource savings through shared cabling as well as offshore and onshore infrastructure.

How well is Government policy supporting innovation in transmission technology to improve the efficiency of electricity transmission?

8. Grid connection is viewed by industry as the biggest single challenge to overcome in order to meet the UK's ambitions for offshore wind. There is growing acceptance that the current Offshore Transmission Owner (OFTO) model must rapidly evolve into a far more coordinated and integrated grid network for offshore generation, which will support the clustering of projects in particular regions. This is likely to bring significant efficiencies in terms of construction, management, and consumer costs.
9. Work by industry, The Department for Business, Energy and Industrial Strategy, Ofgem and National Grid: Electricity System Operator is beginning to pick up pace to assess the options and the extent of the changes that will be needed to restructure the UK's approach. Given the long timescales involved in the development of offshore projects (often 10 years) there is a need for both an interim and longer-term set of solutions for all involved. Some offshore extension projects and others intending to construct by 2030 could opt to participate in new models of transmission if the right incentives were put in place soon. A more long-term structure would apply to those who succeed in future seabed leasing rounds.
10. Although progress is being made, with a National Grid: Electricity System Operator project on OFTO now underway, this agenda would benefit from stronger leadership from the UK Government to push forward reforms. There has been considerable recent progress on aviation issues through a senior-level group involving The Department for Business, Energy and Industrial Strategy and The Minister of Defence. We would like to see this replicated for transmission reform.
11. It is also of considerable regret that the UK is no longer a participant in The North Seas Energy Cooperation (NSEC), which leads collaboration between North Sea countries on the future offshore grid. The UK should seek to regain as much involvement as possible through the current negotiations on the future relationship with the EU.

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