

Crown Estate Scotland's Response to *Building Our Industrial Strategy*

Introduction

Crown Estate Scotland manages land and property owned by the Monarch in right of the Crown. We ensure that the assets are developed and enjoyed sustainably to deliver benefits to communities and to Scotland as a whole.

The business was set up following the Scotland Act 2016 and pays all revenue profit to the Scottish Consolidated Fund.

Crown Estate Scotland is responsible for managing:

- Leasing of virtually all seabed out to 12 nautical miles covering some 750 fish farming sites and agreements with cables & pipeline operators in Scottish waters
- The rights to offshore renewable energy and gas and carbon storage out to 200 nautical miles in Scottish waters
- 37,000 hectares of rural land with agricultural tenancies, residential and commercial properties and forestry on four rural estates
- Salmon fishing rights on many Scottish rivers
- Around half the foreshore around Scotland including 5,800 moorings and some ports and harbours
- Retail and office units in Edinburgh

Key Points

- Road map to minimise business energy costs and the Emissions Reduction Plan should be aligned with complementary objectives and outputs.
- Wave, tidal and floating wind technologies should be included within the scope of the Industrial Strategy Challenge Fund.
- Further support for fixed offshore wind is welcomed to maintain long-term certainty for business and investors.
- The review of opportunities to reduce the costs of decarbonisation should include an appraisal of CCS and short term deployment options for CCS.

General

We welcome the opportunity to provide comment on the BEIS green paper *Building Our Industrial Strategy*. The formation of BEIS and the focus on developing an industrial strategy will facilitate important strategic connections between energy and industry in the UK. We believe that this approach presents significant opportunities to decarbonise the UK's power and industrial sectors in a way that will enable UK organisations and businesses to position themselves as global leaders in these sectors and take advantage of worldwide markets.

Under the pillar of “*Delivering affordable energy and clean growth*”, we would like to see a joined-up approach taken to the preparation of the long-term road map to minimise business energy costs (informed by the review of opportunities to reduce the cost of achieving our decarbonisation goals in the power and industrial sectors) and the long-term Emissions Reduction Plan referred to on page 94. In our view, it is important to ensure that the two documents are aligned, with complementary objectives and outputs. The review of opportunities and road map should assess the viability and cost-benefits of the different options being considered to achieve decarbonisation and the emissions reductions set out in the Emissions Reduction Plan.

Industrial Strategy Challenge Fund (ISCF)

Wave and Tidal

We believe that the scope of the ISCF should include tidal and wave technologies. The UK has 50% of Europe’s tidal energy and 35% of its wave energy and many businesses are working to develop the technologies to exploit these renewable sources of energy. Wave and tidal development activities are creating new industrial clusters around the UK including in Scotland’s Highlands and Islands e.g. Orkney. Figures estimate that by 2050, the global market could grow to £76bn and the UK’s coastal communities will benefit greatly if UK businesses can take advantage of this market¹. Meygen, the world’s first large-scale tidal energy project is now operating off the Caithness coastline in Northern Scotland and this is a great example of a UK business pioneering tidal technology.

In our view, successful wave and tidal sectors will contribute to the following pillars of the green paper:

- *Investing in science, research and innovation* (UK companies are undertaking work to commercialise wave and tidal technologies);
- *Delivering affordable energy and clean growth* (UK companies are developing new technologies providing clear, renewable energy);
- *Cultivating world-leading sectors* (UK organisations such as EMEC, Atlantis and Wave Energy Scotland are now exporting their marine energy skills and expertise around the world); and
- *Driving growth across the whole country* (W&T development activities are creating new industrial clusters in coastal areas of the UK).

Given the contributions that the wave and tidal sectors can make to the delivery of the Industrial Strategy, we believe the scope of the Industrial Strategy Challenge Fund should include these technologies.

Floating Wind

As the green paper notes, the UK is now benefiting from the long-term policy framework for fixed-bottom offshore wind which has led to significant new investments e.g. Siemens in Hull. We believe that the UK is well placed to capitalise on its strong position in the fixed-bottom offshore wind market in the context of the global opportunity presented by floating wind technology. Potential for global deployment of floating wind greatly exceeds that of fixed because its deployment is not

¹ www.renewableuk.com/page/WaveTidalEnergy

limited by water depth and it therefore has significant potential for countries with deep coastlines e.g. USA and Japan.

Floating wind technology is currently at the pre-commercialisation stage. There are now three projects in Scotland which are all consented and either under construction or progressing towards construction. As highlighted by the Carbon Trust², the UK now has an opportunity to build on this world leading position and develop its supply chain capability. Providing support for UK-based companies offering ancillary products and services such as mooring anchors and subsea connectors will help UK companies to develop their offerings and improve their export capabilities even in the absence of a strong domestic market. Useful research could also be undertaken to identify the areas in which UK firms can most effectively compete and should be targeting. This research could then be used as the basis for decisions about what type of government support could most benefit the suppliers.

For the above reasons, we believe that floating wind should be included within the scope of the Industrial Strategy Challenge Fund.

Fixed Offshore Wind

The value generated by the deployment of fixed offshore wind is being realised across the UK. In Scotland, the 588MW, 84 turbine Beatrice project in the Outer Moray Firth is expected to deliver approximately £680m to the UK economy via employment and supply chain opportunities during construction and a further approximately £400-525m during the wind farm's 25-year operational life.³

Therefore we welcome the indication in the green paper that the UK government is now considering how best to achieve further reductions in the cost of offshore wind once current commitments have been delivered. We understand this to mean that the UK government intends to set out a policy framework for further support on the basis that additional cost reductions can be achieved, and we welcome this approach. Providing longer-term certainty on continuing support for offshore wind should increase confidence among investors and offshore wind supply chain businesses in the UK which will in turn encourage them to make strategic commitments that benefit the economy.

Carbon Capture & Storage

The green paper states that the Industrial Strategy will provide an opportunity to explore ways of reducing overall costs of decarbonisation in a sustainable way. We believe the review (referenced on page 91) looking at the opportunities to reduce the costs of decarbonisation should include an appraisal of CCS and short term deployment options for CCS, considering how CCS can contribute to a range of UK priorities including this Industrial Strategy, Sir Ian Wood's Maximising Recovery Review⁴ and Scottish Government's Draft Energy Strategy.

Our justification for including CCS in the review is that the ETI has published research that concludes that without CCS, achieving the UK's targets for emissions reductions will likely cost approx. 1% of GDP (Q4 2016 GDP = £470, 527 million⁵) more than without CCS, and that delaying CCS

² Carbon Trust (2017) Floating Wind Joint Industry Project: Policy and Regulatory Appraisal

³ <http://sse.com/whatwedo/ourprojectsandassets/renewables/beatrice>

⁴ https://www.ogauthority.co.uk/media/1014/ukcs_maximising_recovery_review.pdf

⁵ <https://www.ons.gov.uk/economy/grossdomesticproductgdp>

commercialisation for ten years would increase the cost of reducing GHG emissions by £1-2 billion per year throughout the 2020s, increasing to £4–5 billion per year in 2040⁶. CCS therefore presents an opportunity to deliver flexible, low carbon power generation and a mechanism to decarbonise industry, a position that we believe warrants the inclusion of CCS in the review.

In addition, we suggest there is particular value in focussing on the opportunities for deployment of CCS in key industrial hub locations e.g. Grangemouth and Teeside. Supporting low-carbon infrastructure deployment (including CCS) at these key industrial locations as well as establishing a mechanism or institution to foster collaboration between these hubs will help achieve economies of scale and provide value for money.

Such an appraisal could also consider CCS as an investment opportunity to 'futureproof' industrial hubs by ensuring sufficient infrastructure is in place to allow them to compete long term in global low carbon markets.

The green paper acknowledges that the government has a role to play in co-ordinating markets to enable major changes to our energy infrastructure and we would like to see this include a commitment to appraising CCS and to providing near term and enduring support for appropriate infrastructure deployment that represents value for money. As the document notes, research investment will be crucial in seizing opportunities that the global shift towards a low carbon economy presents, and CCS provides many opportunities in terms of ensuring that UK industry can compete in the long term as well as exporting globally relevant technology, skills and expertise. The green paper seeks to ensure that the UK capitalises on its strengths in the energy industries to win a substantial share of global markets including making the most of our strengths in areas in which Britain has a lead e.g. offshore oil and gas, and CCS is well placed to contribute to this objective.

Ministerial Forums on Industrial Strategy

We are supportive of this proposal to establish and would welcome the opportunity to contribute to any Scottish group that is set up.

We would also like to see a mechanism established to foster collaboration between the regional groups to ensure that any potential synergies from outputs of the groups can be identified and used constructively.

Further information

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⁶ <http://www.parliament.uk/documents/commons-committees/energy-andclimate-change/ETI-letter-to-Chair-on-Future-of-CCS.pdf>