

Barnaby Wharton, Director, Future Electricity Systems, RenewableUK - Written evidence (NSE0001)

I understand that the committee is interested in further discussion of *how are, or should, the ecological risks of further energy projects in the North Sea to be managed?* This issue was touched on during the session and I am grateful for the opportunity to expand on the brief comments made.

The offshore wind industry engages on a regular basis with key government departments, regulators, environmental conservationists and statutory bodies. In addition to several technically focused groups on environmental science, strategic forums between industry and stakeholders have been set up to ensure ecological risks are managed and solutions sought.

As part of the Offshore Wind Sector Deal, The Crown Estate has funded the Offshore Wind Evidence and Change Programme, in partnership with the Department for Business, Energy and Industrial Strategy (BEIS) and the Department for Environment, Food and Rural Affairs (DEFRA). The programme will deliver a mix of studies, research projects and evidence-gathering whilst convening the key stakeholder community that can effect change, all in order to better understand and address the cumulative environmental impacts of offshore wind, and its effects on users of the sea and onshore communities. This work is supported by the strategic discussions taking place through the Offshore Wind Industry Council's Pathways to Growth industry and stakeholder forum.

The offshore wind industry takes a proactive approach to safeguarding birds and other species throughout the UK, working closely with conservation groups including the RSPB, WWF and the Wildlife Trusts as we are passionate about the same values and objectives. These organisations support wind energy because climate change presents the biggest threat to wildlife. Strict rules rightly mean that wind farms can only be built in the UK in appropriate locations which meet rigorous standards under Environmental Impact Assessments which protect our country's rich biodiversity. This includes ensuring that wind farms are sited away from the flight paths of birds as a precondition for seeking planning permission. The Crown Estate is currently undertaking a leasing process for the next round of offshore wind projects. This will include a "plan level" Habitats Regulations Assessment. This will assess the combined impacts of all the projects on wildlife and ensure that this will not be detrimental to local ecologies.

In recent years, the offshore wind industry has undertaken a huge amount of assessment and analysis. Early studies, prior to the deployment of significant capacity of offshore wind in the UK, did produce modelling indicating potential impact on some bird populations. As the industry has developed, post-construction monitoring and evaluation has, however, shown that real-world impacts are significantly lower than those modelled. A 2018 report from the RSPB showed that 99% of sea birds will alter their flight to avoid wind farms. This 2-year study analysed over 600,000 videos from an offshore wind farm and

recorded just 6 bird collisions. There continues to be a huge amount of ongoing analysis on this subject, which has helped industry improve the siting and operation of wind farms to minimise any impact on bird populations. Analysis from the Centre for Sustainable Energy, for example, shows that of all bird deaths related to human activity, wind turbines are responsible for just 0.01% (building strikes, cats and power lines are the most common causes).

Underwater noise during construction and the impact of this on marine mammals is also an area that the offshore wind industry does a huge amount of work to mitigate impacts. Measures include limits on volume and cumulative impact of underwater noise, season restrictions and technologies such as "bubble curtains". We have worked closely with statutory bodies over a number of years to help deliver the latest Underwater Noise Guidance and are now working with key stakeholders to ensure the guidance can be effectively implemented and delivered.

With regards to cumulative impacts and better understanding how projects can be delivered without an adverse impact on the marine environment, the offshore wind industry is also holding key discussions with stakeholders on project derogations and compensatory measures. RenewableUK held a workshop with over 100 stakeholders this January to work through these sorts of questions which was led by Dr Caroline Chapman, a Fellow of the Chartered Institute of Ecology and Environmental Management and Habitats Regulation expert who leads DTA Ecology. This process has produced a summary report with recommendations which is now actively being discussed amongst regulators and decision makers.

The offshore wind industry also engages with other key marine industries to ensure that beyond co-existing effectively together, marine users can work collaboratively on several strategic challenges and opportunities. Through forums such as the Seabed Users and Developers Group (SUDG) conversations are already taking place with key statutory bodies around how protected marine areas and marine net gain can be applied to our seas in harmony with increased development. Industry recognises that despite several key challenges, there are also several opportunities for marine industries to improve and restore marine biodiversity.