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**BY EMAIL ONLY**

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Dear Neil Copeland, Patricia Dunne and Mary Walsh

### **Consultation – Increasing coordination in the development of offshore energy networks**

Natural England welcomes the opportunity to comment on the above consultations. We are pleased to have had the opportunity to input to the work of the offshore transmission network review through our involvement in the working group.

As the Government's advisor on the natural environment, our purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development. In this capacity Natural England would be pleased to offer our direct ongoing input to the work of the review and associated workstreams and provide any advice and information to ensure that environmental impacts are taken into account.

Natural England advises on the environmental aspects of sustainable development and engages with the planning system as a statutory consultee for development plans, Environmental Impact Assessments, Strategic Environmental Assessment, Nationally Significant Infrastructure Projects and where planning applications are likely to impact upon our particular interests.

With the expansion of the offshore wind industry in the UK over the last 15 years there has been a step change in the amount of cable installation activity to much higher numbers and lengths of inter-array and export cables needed to service these projects. In addition to this there has been an increase in the number of interconnector cables. This has necessarily led to interactions of cables with a wider range of seabed substrates and associated habitats and species, and the need for differing installation techniques, successful or not. At the same time as this period of offshore wind development there has been a large increase in the number of designated Marine Protected Areas (MPAs) (from around 16% of inshore English waters designated in 2009 to 50% by 2020) leading to much greater interactions between cabling activities and designated sites. The limitations in availability of grid connections on land has led to cables from more than one project coming into the same or nearby areas, leading to increased pressure on the habitats and species in those locations.

Natural England therefore supports any project that has the potential to reduce the number of cables and therefore the potential interactions with designated sites, sensitive habitats and species.

### **Over arching messages**

#### **Biodiversity**

It is important to ensure that in delivering net zero commitments, unnecessary damage is not inadvertently caused to valuable ecosystems contributing to biodiversity loss. Taking a more coordinated approach to offshore transmission can reduce environmental impacts as a result of fewer cables being needed and careful planning to avoid environmentally sensitive areas. A more strategic approach would be better able to consider the full environmental impacts at an earlier

stage in the process. The environment as a whole (terrestrially and marine) must be considered, linking to the Marine Strategy and Good Environmental Status. It is essential that marine habitats are not fragmented and activities displaced – healthy marine ecosystems rely on connectivity between different areas. Both the MPA network and wider marine environment must be considered when planning and delivering large-scale offshore infrastructure. Strategic delivery of mitigation, compensation, net gain and monitoring should be considered to de-risk future projects.

### Landscape

A primary objective of any new strategic approach to electricity transmission should be to avoid impacts on the landscape fabric and visual resources of our finest landscapes i.e. the National Parks and Areas of Outstanding Natural Beauty. Heritage Coasts, whilst not a statutory designation, should also be a key consideration when offshore generated power needs to be brought onshore.

National Parks and Areas of Outstanding Natural Beauty enjoy the highest level protection in planning law and national planning policy. Both the National Planning Policy (EN1, EN5, etc.) and the National Planning Policy Framework (paras 176 and 177) include policies which seek to limit major development by only permitting such development where it is in the public interest, where alternative locations are unsuitable and when detrimental effects can be sufficiently moderated. Whilst this does not prohibit the routing of underground cables through designated landscapes the siting of overground cables or installations (such as booster stations, converter stations and sub-stations) should be avoided as these are incompatible with the statutory purpose of these landscapes. This principle is endorsed by National Grid's own policies and public commitment which states that:

*'If we need to build new infrastructure, we will seek to avoid the following areas which are nationally or internationally designated for their landscape, wildlife or cultural significance: **National Parks; Areas of Outstanding Natural Beauty; National Scenic Areas; Heritage Coasts; Preferred Conservation Zones; World Heritage Sites; Sites of Special Scientific Interest; Marine Conservation Zones; Special Protection Areas; Special Areas of Conservation; Ramsar sites; National Nature Reserves; Registered Battlefields; Scheduled Monuments and Registered Parks or Gardens**'. (National Grid's commitments when undertaking works in the UK Our stakeholder, community and amenity policy)*

The routing of underground cables should avoid designated landscapes. However where alternative routing is not possible comprehensive mitigation measures, which go beyond those necessary within non designated landscapes (i.e. than simple restoration) should be incorporated into the design. Such schemes should be 'landscape-led' maximising opportunities for conservation and enhancement of the landscape within the development envelope. Compensation measures, which go beyond the development envelope and seek to enhance and conserve the wider landscapes of the designation should also be considered. In all instances key environmental, historical and cultural assets which contribute to the special qualities of these landscapes should not be harmed by the design of the scheme.

### Ofgem's RIIO-2 Environmental Reporting Guidance

In January this year Natural England responded to the above guidance. We welcomed the reporting guidance set out in the draft document: clarifying the Annual Environment Reporting requirement, introducing consistent, comparable approaches, strengthening links with biodiversity net gain and setting out the intention to move towards adoption of formal natural capital valuation (NCV) tools by all licensees over the course of RIIO-2. We consider that these tools might be used across the OTNR approach to bring greater coordination as a holistic onshore and offshore network design is sought.

### Natural Capital

With natural capital approaches still evolving, Ofgem may find it helpful to refer to the British Standard on natural capital accounting currently being developed. This will be a useful source of consistent guidance to help drive approaches. We consider that provisions to cover landscape character would help ensure impacts are considered and effectively reported. In addition we have

also published the Environmental Benefits for Nature Tool which is in beta format but is designed as a means of enabling wider benefits for people and nature from biodiversity net gain.

### Netgain

This summer the Environment Bill was laid before Parliament and as well as the requirement for Biodiversity Net Gain to become mandatory there is now an amendment to include all Nationally Significant Infrastructure Projects. This mechanism whilst currently around the onshore/intertidal elements of projects leaves this open to be extended for marine proposals in the future. The approaches proposed in this consultation for greater co-ordination around the network provide a real opportunity for developers to work together to deliver these net gains more strategically in conjunction with stakeholders developing net gain strategies, Local Nature Recovery Strategies etc. As well as opportunities to deliver biodiversity linked to the Nature Recovery Network, these areas can be used to provide wider societal benefits such as access to greenspace for people improving the health and wellbeing of those communities affected by these developments. More detailed information on Net Gain is provided in Annex 1.

## **Consultation Questions**

### **Early Opportunities questions**

Natural England's key interest is to avoid, reduce and mitigate environmental impacts and those on designated landscapes. Not all the proposals for coordination under the pathfinder projects will have the effect of reducing environmental impacts e.g. quasi bootstrap, figure 5, TO owned bootstrap, figure 8 and connection of electricity storage, figure 9.

Some of the solutions presented reduce the impacts onshore whilst increasing them offshore or vice versa. From an environmental perspective it is the landfall and offshore cable route that has been the biggest environmental and thus consenting risk to date. For any given proposal consideration needs to be given holistically to the environmental impacts onshore and offshore and for a given solution, which is the most important to minimise in that location.

The cheapest solution is not always the environmentally best solution, which has wider societal costs to the consumer that are not factored in. Habitats and species are protected for their intrinsic value and also have an important role in the ecosystem services and benefits they provide.

We welcome the consideration of novel approaches and new technologies that could help to reduce or mitigate for environmental impacts e.g. impacts could be reduced through techniques which give confidence that cables can be laid or buried in soft sediment environments without the need for external cable protection. Natural England encourage an environmental assessment to be undertaken of pathfinder projects to compare the impacts of coordinated infrastructure to linear connections. The outcomes of this can then be used to inform potential future options and the environmental benefits or otherwise of these.

### **Pathway to 2030 questions**

*Question 8: We consider that a holistic design will result in a more coordinated, economic and efficient network. Do you agree? Please give reasons for your answer.*

Yes, Natural England welcomes a high level design that considers onshore and offshore aspects of transmission at the same time. Natural England strongly supports an approach that will lead to a possible reduction in the number of assets and landing points, as we believe that this has the potential to reduce impacts on the environment. A holistic design should take into account at the earliest stages environmental constraints, including protected areas and sensitive landscapes, in order that impacts can be avoided, reduced and mitigated from the outset. If carried out effectively at this stage, this could in turn reduce environmental consenting risk for individual projects. We advise that the holistic design should include consideration of floating offshore wind projects that fall into the Government ambition to deliver 1GW of floating offshore wind by 2030. The best available evidence should be used in feeding environmental information and constraints into a holistic design

and could be used to refine the generation map produced by Crown Estate. Natural England would welcome the opportunity to be involved in this work.

Consideration should be given to whether a Habitats Regulations Assessment should be carried out at plan level under the Conservation of Habitats and Species Regulations 2017 (as amended) of the pathway to 2030 proposals.

Natural England is leading a partnership project bid into the Crown Estates Offshore Wind Evidence and Change programme which would help to provide the information on potential areas of environmental risk. Further information on the project proposal is provided in Annex 2.

*Question 9: Do you agree with the planned work for a detailed network design offshore?*

Natural England welcomes the plans for a detailed network design offshore, that will take into account and address upfront the key environmental and cumulative impacts. At this stage the avoid, reduce, mitigate hierarchy should continue to be followed to minimise environmental impacts. Mitigation should be considered at this stage for any residual environmental risks and finally where there is a remaining adverse impact, compensation should be provided under regulation 68 of Conservation of Habitats and Species Regulations 2017 (as amended) or section 126 of the Marine and Coastal Access Act 2009. We would welcome the consideration of new and differing technologies at this stage, which may be able to reduce environmental impacts.

*Question 10: Who do you believe is best placed to undertake the detailed design for assets that are in offshore waters?*

*Question 11: Do you agree that the existing developer led model should be retained and applied where the HND indicates a radial solution should be used? Please explain your answer.*

It is critical that those undertaking the detailed design have a sound understanding of the environmental concerns and impacts that have occurred due to offshore wind and interconnector cable installation and maintenance to date. These skills and learning need to be utilised by whoever undertakes the detailed design process. Consideration of potential impacts, including impacts on sensitive habitats and species from cable installation, including sandwave clearance and use of external cable protection, should be considered at this stage. In all the delivery models presented only the offshore generator has existing experience in consenting of cable routes and issues encountered during discharge of license conditions post consent. There is potential benefit in maintaining consistency in responsibility from network design to operation, to enable skills and understanding of impacts to be maintained throughout the process. This may help with some of the issues highlighted below in relation to consideration of environmental impacts in cable routing from development to operation.

Natural England's experience as a statutory advisor in consenting and post consent work associated with existing offshore wind projects, has flagged up the experience outlined below with the existing OFTO model, which has raised concerns in relation to consideration of and minimising environmental impacts. This experience should be taken into account and lessons learnt transferred through into the Pathways to 2030 work, to ensure that environmental considerations and understanding are built in from the beginning of the design process and then followed through to operation. There is considerable experience and mutual understanding that has been developed between ourselves and offshore wind developers over the past 15 years. It is important that this experience and understanding is captured and transferred moving forward so that we do not start at the beginning again.

Transition of assets has, in some instances, led to assets being taken on without an understanding of the environmental issues encountered and worked through in the pre application and consenting process. There can be both a lack of understanding of the legislation and regime through which consent was obtained and the ongoing requirements of that consent in terms of monitoring or minimisation of environmental impacts. Lessons learnt during installation of the cable may be lost when the asset is transferred. This can lead to duplication of effort where previous conversations or agreements in relation to environmental impacts are reopened later in the process. At the point of

asset transfer there is a perceived risk aversion for sub-optimally buried cables, which is increasing the potential for external cable protection and associated long term impacts on marine habitats.

*Question 12: Please provide your views on each of the delivery options we have described in this document. In providing your views, please comment on the issues we have raised. Please also give your views on the implementation issues we have raised.*

Whilst competition in the process has led to cost saving, it can also lead to less money being spent on pre application discussion, good quality marine license applications and collection of environmental baseline and monitoring data.

In all the delivery models presented only the offshore generator has existing experience in consenting of the cable route and issues encountered during discharge of license conditions post consent. As outlined above, it is imperative that lessons learnt and experience are transferred across, should a delivery model be selected that does not involved the offshore generator from the start, to avoid starting from the beginning again. Knowledge and expertise on environmental issues must be maintained from the earliest planning stage through to decommissioning.

A piecemeal approach to consenting should be avoided – it places more regulatory burden and pressure for everyone involved (applicant, regulator and SNCBs), especially as these requests are often submitted with tight timescales.

### **Multi-Purpose Interconnector (MPI) questions**

Natural England welcome the consideration given to MPIs as they have the potential to reduce the overall amount of cable infrastructure and thus environmental impacts. In order to maximise the benefits, strategic consideration should be given to the location of MPI routing and landfall, in conjunction with the other workstreams under the offshore transmission network review. When considering which offshore windfarms could be connected using MPIs, there may be more benefit in connecting some than others in terms of impact reduction and this should be given strategic consideration. As per previous comments it is important that there is consistency in environmental consideration and consenting across MPIs and offshore wind infrastructure. Currently there is experience and lessons learnt in the offshore wind industry in relation to cable route planning, applications and installation (including assessment and use of external cable protection) which are not being transferred across the industry. It may be helpful if all interconnectors and offshore wind export cables were consented under the same legislation.

If you have any queries relating to the advice in this letter please contact Alex Fawcett at [Alexandra.Fawcett@naturalengland.org.uk](mailto:Alexandra.Fawcett@naturalengland.org.uk).

Yours sincerely



Alex Fawcett  
Strategy and Government Advice

## Annex 1: Netgain

[Biodiversity Metric 3.0](#) was published this summer, it will become the metric used to calculate and evidence whether a project has achieved the biodiversity net gain requirements set out in the Environment Bill. Biodiversity Net Gain (BNG) is:

*an approach to development, and/or land management, that leaves nature in a measurably better state than beforehand.*

Metric 3.0 encourages users to create and enhance habitats where they are most needed to help establish or improve ecological networks through rural and urban landscapes. By linking to current and future habitat plans and strategies, including the future Local Nature Recovery Strategies (LNRS), metric 3.0 incentivises habitat creation and enhancement where most needed, for example intertidal developments establishing new areas of saltmarsh.

It also 'rewards' landowners who undertake work early, creating or enhancing habitats in advance, allowing them to generate more biodiversity units from their land. We urgently need to be creating new or better-quality habitats now to address the nature emergency we face and metric 3.0 rewards those who do this.

[The Environmental Benefits from Nature tool](#) is designed to work alongside Biodiversity metric 3.0 and provide developers, planners and other interested parties with a means of enabling wider benefits for people and nature from biodiversity net gain. The tool uses a habitat-based approach to provide a common and consistent means of considering the direct impact of land use change across 18 ecosystem services.

It has been developed by Natural England and the University of Oxford in partnership with Defra, the Forestry Commission and the Environment Agency to support Government's 25 Year Environment Plan commitment to *expand net gain approaches to include wider Natural Capital benefits such as flood protection, recreation and improved water and air quality.*

BS 8683 A process for designing and implementing biodiversity net gain is a new British Standard. It provides linear, progressive, good practice requirements, from design to 'spade in the ground' delivery. It adds to the UK's Good Practice Principles of BNG. It translates those principles and actions into a specification, providing a consistent and structured process for designing and implementing BNG based on good practice.

## **Annex 2: POSEIDON project - Natural England's project bid to the Crown Estate Offshore Wind Evidence and Change (OWEC) programme.**

The aim of the project is to provide tools to inform offshore wind planning, to minimise impacts on the natural environment through avoidance and early awareness of likely mitigation / compensation needs, allowing expansion of offshore wind. This will be achieved through the collection of strategic environmental baseline data, updated spatial models for key species and habitats (receptors) that are most vulnerable to offshore wind impact and mapping of the environmental risk to help guide future offshore wind development rounds and feed into wider marine planning.

The outcomes of the project will be:

1. Clear understanding of the environmental risks and opportunities for future offshore wind developments (embedded into wider marine planning).
2. Information to support developers, advisors and decision-makers for current and imminent development rounds.
3. A comprehensive environmental baseline platform that maximises existing knowledge and allows targeted, efficient design of future baseline evidence requirements at plan and project scale.