Offshore Coordination Autumn Progress webinar questions

On 18 October 2021, we released our Offshore Coordination Autumn progress publication providing a consolidated view of the latest activities across the ESO offshore coordination project, explaining how these activities align with the wider Department for Business, Energy and Industrial Strategy (BEIS)-led Offshore Transmission Network Review (OTNR) and signposting upcoming project milestones and opportunities to engage.

Following this, on 21 October 2021, we hosted a webinar where the offshore coordination project team discussed our progress since the start of the year and provided an opportunity for stakeholders to ask any questions. This document provides our response to the questions raised during the webinar.

The questions are grouped into the seven themes:

1) General
2) Early Opportunities
3) Holistic Network Design (general, commercial and technical)
4) Connection and Infrastructure Options Note Process
5) Environmental and social impacts
6) Specific projects
7) Conflicts of interest/legal separation

1. General

How many people are attending this webinar?

Circa 150 industry and community stakeholders joined our offshore coordination autumn progress webinar.

2. Early Opportunities

Why is 'opt in' only voluntary and not mandatory?

The scope of the workstream, set by BEIS in their role as lead for the OTNR, is intended to explore what changes could be made to amend, enable and utilise flexibility in the existing processes. The objective of the workstream is to capitalise on early opportunities for coordination through identifying inflight projects that have the potential to coordinate with changes to, or existing flexibility within, the current regulatory framework.

What incentive was there for a qualifying [in-scope] developer to opt-in to Early Opportunities given project deadlines such as the Contract for Difference window, and work and cost already expended on the previous radial ‘every developer for himself’ approach?

BEIS is exploring several options to incentivise developers to opt-in. In Early Opportunities, there is no one way to coordinate, and BEIS is considering ways to encourage greater coordination. The ask of developers is that they consider coordinating with nearby projects that are based in the same region and ensure their proposals are coherent with others nearby. Relevant OTNR project partners are talking to developers about how ambitious they can be and the challenges they face that prevent further coordination. More importantly,

the OTNR will also explore potential solutions to overcome these challenges. There are natural incentives to take advantage of coordination as it will reduce the risk of projects being delayed at the planning stage through the consideration of the cumulative environmental and local impact at the plan rather than project level. There is also the intention that more efficient and lower cost grid connections will make those developers more competitive in Contracts for Difference (CfD) auctions and will drive more economic outcomes for consumers.

The Anticipatory Investment scheme has not yet been implemented. Why is this? Surely the few remaining developers will only opt in if they are offered a carrot?

Ofgem recently consulted on Anticipatory Investment as part of their consultation on Early Opportunities, Pathway to 2030 and Multi-Purpose Interconnectors . We will work closely with Ofgem in this area following the publication of the results of their consultation.

Why do the developers say that National Grid gives them the connection points at the outset, yet you say projects are developer led? How can this be a developer-led process where the developments onshore are almost entirely driven by the connection offer made by NG ESO?

The exact details of the connection offer and the process steps can be found on our website here.

We identify the location of the connection in discussion with the developer, taking onboard their feedback. The developer then leads the work around how they get there and any opportunities for sharing routes. The consenting and how they get to the location is developer-led.

The term developer-led also refers to the approach to coordination in the Early Opportunities workstream in which the developers lead on proposing options for coordination, rather than there being a central design and delivery.

What are the different models for Early Opportunities?

The Early Opportunities models can be found in the Ofgem consultation on Early Opportunities, Pathway to 2030 and Multi-Purpose Interconnectors.

3. Holistic Network Design (HND)

Who are the members of the CDG?

The full members of the Central Design Group are National Grid ESO and the three onshore transmission owners (Scottish Power Electricity Transmission, SSEN Transmission, National Grid Electricity Transmission).

Ofgem, BEIS and representatives of the Devolved Administrations attend the formal CDG meetings as observers.

Is there a list of contents available for the expected Holistic Network Design? The information is needed for the Supply Chain Readiness Working Group.

Please refer to the draft Terms of Reference which can be found in the Ofgem consultation on Early Opportunities, Pathway to 2030 and Multi-Purpose Interconnectors.

Will the HND include connections needed to decarbonise oil and gas installations?

We are reviewing how to manage the scope of work relating to decarbonising oil and gas. This is a new potential opportunity that wasn't included in the original scope of the HND. It is something that needs to be thought about carefully, so we have started to engage with the oil and gas industry and OTNR partners to understand the scope and challenges.

To what extent will HND inform the NOA 2022 outputs?

We are currently working on how best to consider the conclusions of the HND in NOA 2021/22. Further information on the interactions between the HND and NOA processes can be found in our Offshore Coordination Autumn progress publication.

Are energy islands or offshore hubs similar to EU TSOs being considered as part of HND or Enduring Regime workstreams?

We are exploring all technology options as part of the HND, we are not precluding any options from the outset and equally we are not forcing a specific solution. We are looking to find the optimum most efficient design solution.

How likely are we to get to a more coordinated network, when we would need someone to coordinate all the work and invest in network equipment before developers come along? Aren't the regulator/Ofgem generally in favour of competition between companies over a monopoly approach?

Coordination is a key aim of the HND as an efficient way to enable delivery of 40 GW of offshore wind by 2030. As part of the OTNR, Ofgem has consulted on different options for delivering the HND, which parties are best placed to lead the development and whether there are options for some of the infrastructure to be developed earlier than it might historically have been.

The HND, and Enduring Regime, are looking at fundamental changes to how offshore wind and transmission could be developed in the future. Retaining competition is an important objective in the model(s) that are developed.

HND – Commercial

Has it been decided if the CDG will also look at relevance of TNUoS charging or is this still unknown?

The Ofgem consultation on Early Opportunities, Pathway to 2030 and Multi-Purpose Interconnectors indicated that practical implementation of a coordinated design would likely require changes to industry codes and standards.

We are assessing whether there are any required code changes to ensure that charging arrangements operate correctly for a more coordinated design in the Early Opportunities and Pathway to 2030 workstreams. There may be different arrangements needed for each of the models being consulted on as part of Early Opportunities workstream or a variation of those designs via the HND.

To help us to do this, we are hosting workshops in November 2021 to discuss the interaction between the Early Opportunities models, any potential HND iterations and the various code and standard requirements, including TNUoS charging.

Please sign up on our website if you are interested in attending.

HND – Technical

NG have been developing interconnectors for a long time. Can any of these older interconnectors be adapted and upgraded (in terms of MW) to accommodate power from new wind farms? This would reduce onshore connections immensely.

In theory, this could be done, however in many cases this may not be practical or economically efficient. The focus of the HND will be looking at new infrastructure and how best this can be coordinated.

Projects in scope for the HND and Pathway to 2030 are primarily those which have received leases in The Crown Estate Leasing Round 4 and those which will receive them in Crown Estate Scotland's current ScotWind leasing round. The workstream scope will also include offshore projects within the Celtic Sea and

potentially a handful of other offshore projects which are potentially spatially and/or temporally relevant to other in-scope projects for the Pathway to 2030 workstream where it is efficient to consider them as part of the scope of the HND.

4. Connections and Infrastructure Options Note (CION) Process

Given the importance of the CION process to Early Opportunities, will the CION process be made transparent?

The CION process, which has been used to date, is set out on our website here.

As an overview, *the CION process occurs both in the pre-offer and post-signature project stages:*

1. *The pre-offer CION process is the optioneering process that takes place as part of the initial connection application process to identify the preferred connection option and transmission works for new offshore generation or interconnector connections.*
2. *The post-signature CION process is the optioneering process that takes place after the developer has signed a connection offer. It covers any subsequent CION process reviews by the parties to the CION process as a result of material trigger(s) in line with Modification Applications or Modification Notices as defined within the "Connection and Use of System Code" (CUSC) and "System Operator Transmission Owner Code Procedure" (STCP) "18-1 Connection and Modification Application".*

For Early Opportunities, all opt-in developers have gone through the second stage.

The CION process will be superseded as activity in the Pathway to 2030 workstream will replace the second stage of the process. The current CION process is an internal process that the ESO follows to fulfil its responsibilities and we are aiming to make future work and processes as transparent as possible.

In light of the OTNR, NG ESO Offshore Coordination Project and the ever-growing threats to coastal communities and businesses from multiple offshore renewable projects, will NG ESO re-visit the CION process for all projects with connection offers to the Leiston 400Kv substation with a view to stopping the damage to the environment, ecology, health and wellbeing of those situated in the Suffolk Heritage Coast?

We understand the concern of those living near to network infrastructure. Developers receive connection offers as an important part of their project development process; they give certainty on where infrastructure needs to go and allow other processes such as consenting to commence.

The Early Opportunities workstream is working with offshore developers who have volunteered alternative options to the CION position that they have been given (utilising the models provided in the Ofgem consultation on Early Opportunities, Pathway to 2030 and Multi-Purpose Interconnectors). If feasible and appropriate, this may include reviewing where connections will come to shore.

Will existing and future CION assessments be publicly available?

We are not aware of any plans to make CION assessments public. For almost all connections going forward, it is the intention that the CION assessment will be superseded by the new processes set up under the OTNR.

5. Environmental and social impacts

Given the brave new world in which NG ESO finds itself, why are you not considering brownfield and existing substation sites for coordinated energy hubs for Early Opportunities?

Early Opportunities is a developer-led process, with the objective of National Grid ESO and the wider OTNR to provide a route to capitalise on early opportunities for coordination through identifying inflight projects that have the potential to coordinate with changes to, or existing flexibility within, the current regulatory framework.

When developers are looking to a more coordinated approach they are considering various options for their connection, including a connection to shore, or possibly reducing the need for landing sites through connecting to another asset offshore and utilising an already planned or existing landing site.

There is an intent and willingness from developers to minimise environmental impacts.

What consideration is the ESO giving to minimising the impact on coastal communities by obtaining services from OFTOs (e.g. enhanced reactive power) that avoid other network assets being built unnecessarily?

Our Terms of Reference for the HND (a draft version of which can be found in Ofgem's consultation on Early Opportunities, Pathway to 2030 and Multi-Purpose Interconnectors) asks us to lead the development of the network design, and don't predetermine how those sort of capabilities are provided. If we can see cases within our design which support a change, we will include this in our recommendations.

Aside from the offshore coordination project, the ESO is progressing with three NOA pathfinders, one of which is the NOA High Voltage Pathfinder. This looks for the most cost-effective ways to address high voltage system issues created by the need to absorb more reactive power on the transmission network.

Reactive power needs are fairly local in nature which means that we need to procure the additional reactive support in the regions where it is effective to do so. The voltage pathfinders released so far have been open to any party to put forward solutions, including Transmission Owners, Offshore Transmission Owners, Distribution Network Operators and commercial providers.

There have been huge objections to the current and proposed onshore connection/substations in Suffolk and Norfolk. To what extent are these objections being recognised in the proposals?

The objections and consideration around social and environmental impact are central to the work we are undertaking. Our approach aims to balance minimising impact, decarbonisation and deployment of renewable energy.

For projects which form part of the Pathway to 2030 workstream, we are looking to develop a coordinated design that minimises impacts. In terms of factoring in community impacts, our Central Design Group Terms of Reference (for Pathway to 2030) state that we have to consider our four network design objectives on equal footing, and the Terms of Reference refer to community impacts as one of those network design objectives. Multiple options are being considered and the recommended option will balance the four objectives in the Terms of Reference (economic and efficient, deliverable and operable, community impacts, and environmental impacts).

For those very late stage projects i.e. those in scope for Early Opportunities, the developers are looking to coordinate their network to find a way that mitigates and minimises the impact on communities and the environment whilst still ensuring their project is deliverable.

How neutral are RPS likely to be in their advice on environmental and community implications to the CDG/in terms of representing the interests of communities and environments?

In appointing RPS, we have gone through a procurement process. As part of that there are contracts in place to ensure that our consultants are delivering to our objectives and there aren't any conflicts of interest with their other customers. This approach is true for RPS as with any organisation or consultancy we are working with.

By 'delivering to our objectives', we mean we are working to the network design objectives of the HND which are; environmental impacts, social impacts, deliverability and operability, and economic and efficient. These criteria are being considered on equal footing and RPS are working with us on the environment and social aspects so that those can be brought into the overall assessment compared against the other priorities.

Can you spell out your “high level” criteria for choosing an area for onshore infrastructure?

The high-level design criteria we are working to for the Pathway to 2030 workstream and are considering in developing the HND are:

- Economical and efficient
- Deliverable and operable
- Environmental impacts
- Social impacts

The design criteria are being considered on equal footing, as set out in the Terms of Reference.

I note in your update "With regards to community interests, we will also be speaking with MPs and local government in regions potentially impacted by the HND and producing plain English communication for members of the public" When will this contact be taking place?

We are planning on undertaking these engagement activities over the next few months, so towards the end of this calendar year and the beginning of 2022. Our intention is to align the timing of our engagement with when we have new messages to communicate on the delivery of the HND.

In terms of the plain English communications we’re delivering for the public, the timings will be similar. We are currently working on this with the three onshore TOs to make sure we are presenting clear and consistent information for our mutual stakeholders, in a way that is digestible for non-industry stakeholders.

6. Specific projects

We received some questions relating to specific projects. Whilst we understand that you are keen to know the answers, we are unable to comment on specific projects, as they are commercially confidential.

Minimising the environmental and social impact of projects is a key deliverable of all projects in scope for Early Opportunities. We are looking at every option that we can think of (the models talked about in the webinar and referenced in Ofgem’s consultation) to try and give the developers as many options and ways of doing it as possible.

The high-level design criteria we are working to for the Pathway to 2030 workstream and are considering in developing the HND are:

- Economical and efficient
- Deliverable and Operable
- Environmental Impacts
- Social Impacts

There is further information about how we are doing this in our Offshore Coordination Autumn progress publication.

We cannot guarantee today every single project will end up with a wholly coordinated new option.

7. Conflicts of interest/ legal separation

How independent are you of your parent company National Grid PLC?

The ESO has its own regulatory agreement from Ofgem and that sets out the parameters of our activity. We also have ‘legal ringfencing’ which means the ESO is held separately by National Grid Group. As a result, we have our own board with our own independent directors who set the vision and strategy for the business. All of that is unique to the ESO, and our incentive scheme is unique to our activities; we are only rewarded for ESO activity.

With Ofgem, we set out a range of activities known as SOFI (System Operator Functional Information). This is a category of information that can only be held and seen within the Electricity System Operator. That can never be shared with the rest of National Grid Group. There are restrictions in place to achieve that, for

example, all ESO employees have their own dedicated email addresses that sit separately from National Grid Group and the traffic that flows between them can be seen. With that sort of arrangement in place, we can ensure information flows are appropriate and Ofgem can monitor that. This ensures a high degree of separation between the businesses.

Earlier this year, Ofgem released a consultation document around further separation between the ESO and the rest of National Grid. As part of that, they said there is no evidence to date that the ESO shares information with National Grid where it shouldn't, and we are adhering to the terms of the separation that we have so we are acting, in this space and in others, independently from National Grid Group.

Are ESO employees incentivised (e.g. via a sharesave scheme) to buy and hold shares in National Grid PLC who would benefit from any future network and if so, is this a conflict of interest?

National Grid employees are able to have shares in National Grid PLC through a share save scheme. This is something that Ofgem has approved as consistent with being an employee of National Grid Group, but not imposing an undue conflict of interest. The schemes are long-term schemes so day-to-day activities do not have any direct bearing. It is much more about the longer-term performance of the group, and Ofgem has specifically approved that as okay within the remit of separation.

Presumably employees move around different parts of the National Grid Group. If so, how effective is "ring fencing"?

There is a process in place to manage employees moving between the ESO and the rest of National Grid, and vice versa. They must complete a form that declares what they've been working on and assesses the risk, and that is signed off by our legal compliance team. That is reviewed by Ofgem and we update them on this every year. This sets out what employees have been working on, what they're going to be working on in their new roles and, where there are conflicts, people can be given a period of gardening leave to ensure that they don't take commercially sensitive information with them. This can be between three and six months depending on the circumstances. We can also put in place arrangements restricting what people can work on for a period of time after any move between the businesses.