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**Network Arrangements on the Suffolk Coastline**

Dear Matthew,

Thank you again to you and your colleagues for taking the time to meet with us on 10 September about new energy connection projects in Suffolk. We very much appreciated the chance to meet and talk through the points raised. We also undertook to come back to you on the questions you asked in your letter of 23 May and the matters discussed at the meeting. Apologies again for not getting back to you sooner on those. Taking each in turn:

*Question (i) Why the initial connection provided by NGET for EA1(N) and EA2 was at Bramford. We presume this was considered to be economic and efficient, even after it was clear the EA1 connections would not have the original capacity that had been [approved]. The local authorities were working with SPR on proposals to connect EA1(N) and EA2 to Bramford for several months before the connection offer was changed to the Leiston/Sizewell area.*

As Steve Knight-Gregson outlined in his email to John Pitchford in May, the original Connections Infrastructure Options Note (CION) assessment in 2010 looked at how to connect the full 7.2GW of the then proposed East Anglia Offshore Wind development. At that time, that was a joint venture between ScottishPower Renewables and Vattenfall, structured around 12 offshore platforms. Six individual offshore wind farm projects were proposed by the developers under that joint venture arrangement. The assessment

concluded that connecting three of those projects at Bramford – EA1, EA3 and EA4 – each 1.2GW with Direct Current (DC) links to shore, was an efficient, co-ordinated and economical option.

Bramford 400kV substation needed to be rebuilt and the existing overhead line circuits needed to be reconfigured there, to connect all the circuits into the substation in readiness to connect Sizewell C. Building a new substation somewhere in the Leiston area was not considered in 2010 and connecting at the existing Sizewell B substation in the nuclear power station site was not an option then, as it isn't an option today.

The outcome of the subsequent Contracts for Difference auction for EA1 prompted ScottishPower Renewables to change the technology for the connection into Bramford. The technology change prompted a CION review. ScottishPower Renewables and Vattenfall also elected to take their various projects forward individually rather than as a joint venture, taking the opportunity to refine the offshore zones.

What was originally EA4 and EA2 have been re-configured with some residual capacity from EA1, to form EA1(N) and EA2. With the reconfiguration of their offshore projects, ScottishPower Renewables requested a review of connection locations. The CION assessment was reviewed and the assessment determined that the connection of EA1(N) and EA2 should be made in the Sizewell area. Due to nuclear site license restrictions at Sizewell, the Leiston area was identified as the most appropriate location to connect EA1(N) and EA2.

Questions about the timing of ScottishPower Renewable's discussions with yourselves about any changes to EA1(N) and EA2 are matters for the developer and not something we are able to comment on. As discussed on 10 September, the connection application and offer process is a commercially confidential one. Decisions about when to start discussing the details of proposed offshore wind farm connections with local authorities and others are, in the first instance, typically for the wind farm developer. It is usually their work which needs to start well ahead of ours, particularly where the developer is responsible for consenting and consultation.

*Question (ii) What was the outcome of the environmental assessment undertaken during the consideration of the change of location for the grid connection, in compliance with schedule 9 of the Electricity Act 1989? There is reference to this having been carried out in your answer to Q2 for SASES in your colleague's letter of 8<sup>th</sup> February, but no response provided to their query about how this requirement had been met. It is difficult to see how this would have resulted in a positive outcome, given the accumulation of environmental factors against development in this area, in particular given the fact that initially it appeared that any location for substations would have to be in an Area of Outstanding Natural Beauty or immediately adjacent to it, where any landfall and cable route would have to pass through it.*

As discussed on 10 September, the redacted CION documents that you have a copy of, outline the environmental considerations to which regard was given. At the time a connection offer is made and at the time a CION assessment is undertaken, there isn't a fixed connection site or an identified landfall or cable route for the incoming cable that the developer is responsible for.



The connection application stage is also a commercially confidential one, which means the views of local authorities are not canvassed at that point in time. The customer's agreement would be required to share information at that stage. From receipt of a connection application, National Grid ESO must assess the application, scope a potential offer, have that signed off internally and issue the connection offer all within 90-days. All connection offers issued are also subject to consents.

At the connection application and CION stage, therefore, there are clear limitations to the scope for environmental assessment and any external engagement with bodies such as yourselves. Our in-house Consents staff are involved in identifying environmental constraints for the National Grid works and input into the CION process on those. The offshore wind farm developer looks at landfall and cable routeing constraint considerations, feeding those into the CION process. It is neither possible nor appropriate at that stage though, for there to be a detailed environmental impact assessment or cumulative impact assessment, as the project details are not sufficiently defined and it is by no means certain at that stage which projects will ultimately proceed.

The precise location, shape and nature of the proposals is something which develops through the site option evaluation and detailed design work at the consents preapplication stage, which ScottishPower Renewables is conducting. Government and the regulator expect the planning process to determine whether a proposal is acceptable in planning and environmental terms and the relevant local planning authorities have a key role in that regard. For the reasons outlined, it is not appropriate for National Grid to be the judge of what will or will not ultimately be acceptable in planning terms at a very early and commercially confidential stage when project details are yet to be defined.

Section 38 and schedule 9 of the Electricity Act 1989 requires regard to be had to the desirability of preserving amenity in formulating proposals. To the extent that those things can be taken into account at the connection offer and CION stage, they are. Environmental considerations are noted in the CION and sections of new transmission line passing through nationally designated landscapes such as AONBs are often buried below ground. The more detailed site identification process that has subsequently been undertaken by ScottishPower Renewables has been thorough and has considered options for substations both outside and inside the AONB. At the CION stage, therefore, there is the scope to limit potential landscape and visual impacts on the nationally designated area and ultimately, the planning process will determine whether a proposal is acceptable or not in planning and environmental terms.

As we've said, we take our responsibilities seriously and we absolutely appreciate that local communities have concerns. We fully understand too that the County Council wishes to properly represent local residents on issues such as this and that you are keen to ensure the closest possible working relationship on future energy developments, accepting that commercial confidentiality considerations constrain what is possible at certain stages.

At our meeting, you raised concerns about the volume of offshore wind generation and interconnector projects connecting in the Suffolk and East Anglia regions and whether this impacts on the reliability of the wider GB transmission network. The annual Network Options Assessment (NOA) carried out by the ESO looks at the capability of the electricity transmission network. Working with the transmission owner the ESO identifies the required network reinforcements that may be required to economically and efficiently maintain a secure and reliable transmission network. The NOA process takes account of contracted generation background, Government energy policy and the consequential developments of generators, it takes feedback from



stakeholders through the Future Energy Scenarios work conducted by the ESO and develops the assessment accordingly. The assessment looks out over a 10 year time period which stretches to a 20 year horizon and identifies where reinforcements of system boundaries are likely to be required. This information is used by developers when bringing forward their projects. It is clear from recent NOA publications that boundary capability across the South East will be restricted in future years unless existing contracted generation terminates or further network reinforcement is developed.

With the Crown Estate's announcement of Round 4 seabed leasing and the Government's commitment to achieving Net Zero, we are acutely aware that the future growth of further offshore wind in East Anglia will require innovation and potential offshore solutions to ensure that we can minimise the impact of network connections to the local communities. Whilst Round 3 wind farms are proceeding with radial connections in line with the findings of studies published in 2015, we are working with our customers, the Crown Estate, Ofgem and the Government to find the best solution to delivering the vital infrastructure that will be needed for Round 4 and future offshore wind.

That work is at a very early stage and there aren't yet emerging thoughts, options or specific proposals that could be discussed with you. Connecting several future offshore wind farms via a ring main reducing the number of onshore connections is one possible solution that we are exploring. That though would require a policy framework which doesn't exist currently, to facilitate anticipatory investment in advance of confirmed development.

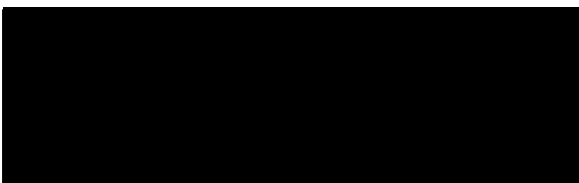
As we noted at our meeting, we are committed to working with you to address the concerns that you and local residents' have. While the considerations about how future offshore wind is connected to the electricity transmission network is a broader one across East Anglia and other parts of the country, we will certainly engage with you on that at the earliest stage that we can.

We are, as we say, in discussion with customers, Crown Estate, Ofgem and Government to find the best way forward. We will raise with those bodies the question you have asked about how parties such as yourselves might be engaged early in considerations around options. As soon as we are able to start discussions with you we will. We hope to be able to do that in the coming months.

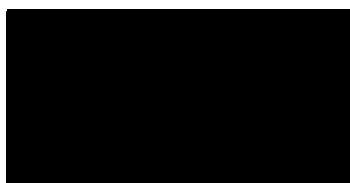
As requested at the meeting, attached is a map showing existing offshore wind farm connections and known proposals on the east side of the country.

We hope that's helpful and thank you again for taking the time to meet with us.

Yours sincerely



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Existing offshore wind farm connections and known proposals (October 2019)

