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Rachel Reeves MP

Chair of Business, Energy and Industrial Strategy Committee

(email: beiscom@parliament.uk)

&

Neil Parish MP

Chair of Environment, Food and Rural Affairs Committee

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House of Commons

London

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Dear Ms Reeves and Mr Parish

EAST SUFFOLK UNDER THREAT FROM UNPLANNED MULTIPLE ENERGY PROJECTS

We are one of a number of community groups who are deeply concerned about the threat to East Suffolk, its landscape, ecology and way of life from multiple large scale energy projects.

Rural East Suffolk including the Suffolk Coast & Heaths Area of Outstanding Natural Beauty (map attached) is facing an unprecedented number of energy projects in the next 10 years. No other part of rural England is facing such an onslaught of industrialisation in the name of so called "renewable energy". These include the following projects in several different locations within East Suffolk:

1. Sizewell C Nuclear Power Station (which will have two reactors) being developed by EDF;
2. East Anglia One and East Anglia Three offshore windfarms (currently under construction) being developed by Scottish Power. The wind turbines may be offshore but very large and permanent industrial infrastructure is required **onshore** to enable connection to the National Grid;
3. East Anglia One North and East Anglia Two offshore windfarms, again being developed by Scottish Power and requiring yet further very large and permanent **onshore** infrastructure;
4. The major expansion of existing windfarms known as Greater Gabbard and Galloper requiring even more permanent **onshore** infrastructure;
5. The National Grid's Nautilus and Eurolink interconnector projects which will connect the electricity grids of the Netherlands and Belgium to the UK. These require very large and permanent industrial infrastructure **onshore** in East Suffolk;
6. The Crown Estate is planning yet another round of windfarm developments off the East Suffolk Coast which require yet further very large and permanent **onshore** infrastructure.

Aside from the permanent impact of these developments, there is also the massive disruption caused by the construction process itself which will take place over many years and which includes the digging of several 50m wide cable trenches over many miles of open countryside (including through an AONB) in an area with very constrained road and rail infrastructure.

There has been a total lack of strategic, long term planning by central government, local government and the energy sector (particularly the National Grid). Had there been it would have been readily apparent that this sensitive and deeply rural area of East Suffolk simply cannot cope with this type and scale of industrial development without destroying its character and severely damaging its tourism dependent economy.

Given the magnitude of the failure we respectfully request that your select committees investigate these matters.

The remainder of this letter focuses on the wind farm developments as it is these that highlight both the overall failure to properly plan and the serious mismanagement of existing and planned windfarm projects.

Everyone appreciates the need to invest in renewable energy and the role that offshore wind power has to play in this. However what is **not** appreciated is the huge scale of the associated highly disruptive **onshore** development. Clear examples are the latest offshore wind farm projects which Scottish Power Renewables (SPR), with the support of the National Grid and the Crown Estate, are promoting in the North Sea off the Suffolk coast. The proposed **onshore** substation complex covers at least **30 acres** and includes industrial structures **18 metres high**. SPR plans to build these in open countryside of high landscape value close to a thriving village community.

These plans are for just two wind farms generating up to 1.7 Gigawatts of power. The aspiration to generate 25 Gigawatts of power from the Crown Estate's current Round 3 offshore windfarm developments could result in potentially **500 acres** (160ha)* of land that has to be industrialised, not including all the land required for the construction of 50 metre wide underground cable routes from the coast to National Grid dictated inland connection points.

All this poses a huge threat to East Suffolk and its Heritage Coast, its rural landscape, its ecology, its archaeology and its communities.

Further, it seriously threatens a local economy dependent on tourism attracted by its landscape and quintessentially "English" towns and villages such as Aldeburgh, the Suffolk Coasts and Heaths AONB, and the surrounding coastal and inland rural landscape. It is estimated that tourism contributes £210million and around 5000 jobs to the local economy. In the case of East Suffolk there is yet another major factor. There are already two nuclear power stations (Sizewell A and Sizewell B) just five miles north of Aldeburgh on the coast at Sizewell and EDF is proposing to build yet another nuclear power station close by on the AONB (Sizewell C).

So one might have expected that a thoughtful and long term strategic approach would have been taken to minimise the damaging impacts of the major industrial scale onshore infrastructure required to deliver so called "offshore" wind-power to the National Grid. This is very far from what is happening

Instead, an *ad hoc* and opportunistic approach is being pursued, taking no account of the combined effect of multiple large scale developments including:

1. The latest two of several wind-farm projects resulting from the Crown Estate's Round 3 allocation of large tracts of the sea bed to wind-farm developers

2. National Grid's plans to interconnect the UK National Grid with those of Belgium and the Netherlands, requiring a further 20 acre substation complex; and
3. A further massive nuclear complex being proposed for Sizewell by EDF (two nuclear power plants: Sizewell C1 and C2)
4. The major expansion of existing windfarms known as Greater Gabbard and Galloper

What is worse is that on top of all of this the Crown Estate is planning a further allocation of wind-farm developments known as Round 4 for release in the Spring of 2019. This is not just a case of trying to force a quart into a pint pot – it is more like squeezing multiple gallons into a pint pot. **How can this chaotic state of affairs have come about? Just what have National Grid amongst others been doing or rather failed to do?**

In large part this is due to both the failure of National Grid to plan strategically rather than tactically and invest for the long term, and the Crown Estate in taking no substantive responsibility for the onshore impacts of its decisions.**

National Grid's failures, dating back to at least 2008, if not before, have led inevitably to a total lack of awareness by both Government and Planning Authorities at Central and Local level of the onshore impact of the offshore projects that were initiated by Round 3 (and soon Round 4). No forward land allocation planning has been carried out, at least in East Anglia, and allocation of network connections has been taking place on an *ad hoc* basis. National Grid now has the nerve to indicate that it has insufficient time to provide alternative and better solutions through extending their transmission network.

The consequences of the National Grid's, Scottish Power's and the Crown Estate's failure

A shocking example of this failure is a Scottish Power wind-farm project which is currently under construction in East Suffolk. The depressing story is as follows.

Back in 2008 the Crown Estate launched what is known as Round 3 of potential wind-farm projects off the East Anglian coast whereby developers would bid for rights to build wind-farms. Amongst others SPR bid and was successful and planned to build a number of wind-farms which were then known as East Anglia One ("EA1"), East Anglia Two ("EA2"), East Anglia Three ("EA3") and East Anglia Four ("EA4").

SPR initially decided to bring forward three of these projects which could produce up to 3.6 Gigawatts of power. As described above, these projects must be supported by large scale onshore infrastructure in order to connect to the National Grid. Through a less than transparent process known as CION, National Grid looked at a number of locations in East Anglia (including in the Sizewell/Leiston area) and offered Scottish Power a connection point at a location called Bramford where there is an existing large scale substation complex. One might think this would be close to the coast, but no. The Bramford site required a 22 mile, 50 metre wide underground cable route to be carved from the coast at Bawdsey through the countryside, including the AONB. The very fact that the National Grid thought this was the best location, notwithstanding the cost and disruption of such a route (the "Bawdsey to Bramford cable route"), shows the difficulty in making a connection elsewhere in East Suffolk. It is important to note that at that time, National Grid had considered and discounted a connection in the Sizewell/Leiston area. National Grid has not disclosed the reasons why, but it demonstrates what a sensitive and constrained area this part of East Suffolk is. No doubt part of the rationale was that the very large substations required could be accommodated at the existing substation location at Bramford and thereby minimising the impact on the East Suffolk landscape.

SPR decided to bring forward its projects in a phased manner reflecting the Government's approach to the auction process for "Contracts for Difference". The Contracts for Difference (CfD) scheme is the Government's main mechanism for supporting low-carbon electricity

generation. CfDs are intended to incentivise investment in renewable energy by providing developers of projects with direct protection from volatile wholesale electricity prices by guaranteeing a fixed (but indexed) rate for the electricity generated over a 15-year period. Developers bid for CfDs through a “sealed bid” auction process

The first project SPR brought forward was EA1, for which it applied to the Planning Inspectorate for a Development Consent Order (“DCO”) in November 2012. That order was duly granted in 2014. It is clear from the DCO that PINS was understandably concerned to minimise disruption caused by the construction of the cable route. Therefore consent was given on condition that cable route would be built once and would accommodate 3.6 Gigawatts of power i.e. this cable route would accommodate all SPR’s contemplated future wind-farm projects. So far so good.

Following the Contract for Difference auction, SPR was successful to the extent it was awarded a contract for 714 Megawatts (0.7GigaWatts) of power for EA1. This was consistent with the DCO which permitted development up to 1.2 Gigawatts of power. A consequence of CfD in this case (and perhaps unforeseen by the Government) was that for commercial reasons SPR then modified its plans by reducing the planned output of its EA1 project.

Then things started to go wrong.

For questionable reasons SPR made an application to Planning Inspectorate for two changes to the DCO. These changes were said by SPR to be needed because it had decided to change the design of the onshore technology from Direct Current (“DC”) to Alternating Current (“AC”). The problem with such a change was that although the output from the EA1 wind farm was now to be 714 megawatts (rather than the maximum of 1.2 Gigawatts), more of the capacity of the Bawdsey to Bramford cable route would be needed as more cables are required for AC technology notwithstanding the almost 50% reduction in power. The overall effect of these changes was that the cable route would no longer be able to accommodate 3.6 Gigawatts of power as originally planned but only a maximum of 1.9 Gigawatts. SPR justified this with the argument that it no longer needed so much capacity since it was no longer going to develop EA4. However SPR was clearly contemplating two new offshore wind farm projects to be known as East Anglia One North (“EA1N”) and East Anglia 2 (“EA2”). PINS and BEIS were both aware of this and asked SPR to clarify the position, being quite rightly concerned about the disruption that would ensue if the Bawdsey to Bramford cable route was not employed for these new projects. SPR appears to have assured PINS in some manner that these projects were too uncertain in a number of respects to require consideration at that time i.e. there was no prospect of disruption.

However, that assurance does not bear examination because according to SPR’s own time line (set out on its website), it was already planning to enter into contracts in respect of the development of EA1N and EA2 in **Spring 2016** and had signed agreements to lease with the Crown Estate in **February 2016** in respect of the sea bed where the turbines were to be located. Further at a series of meetings with PINS in 2016 it was clear that SPR were carrying out detailed work on the EA1N and EA2 projects.

PINS also appears to have been reassured by a number of statements by SPR (seemingly unaware that the proposed changes substantially reduced the capacity of the Bawdsey to Bramford cable route) in respect of SPR’s plans to use that route for EA1N and EA2 at the same series of meetings in 2016. Details of those meetings are set out below.

1. The minutes of a meeting between PINS and SPR on 12 April 2016 to discuss EA1N and EA2 state *“the Applicant informed the Inspectorate that the projects intend to connect at Bramford substation”*. The Applicant being SPR.

2. The minutes of a meeting between PINS and SPR on 6 July 2016 state, in the context of the agreements between SPR and National Grid to connect to the grid using the Bawdsey to

Bramford cable route, *“The grid agreements have now been modified by the Applicant to accommodate EA2 and EA1N”*. The minutes also state *“The Applicant confirmed.....the EA1N and EA2 projects intend....to follow the same offshore and onshore grid connection route and connect to the National Grid at Bramford as per their connection agreements”*. SPR gave no indication that such a connection would not be possible. So clearly SPR were not only planning in detail for EA1N and EA2 and but also stating it would be on the basis that SPR would use the Bawdsey to Bramford cable route.

3. The minutes of a meeting between PINS and SPR on 15 December 2016 also refer to the Bawdsey to Bramford cable route in the context of the EA1N and EA2 projects. It is abundantly clear from those minutes that SPR had been carrying out detailed work on the onshore cable route for EA1N and EA2 and indicated to PINS that the cable route would be the Bawdsey to Bramford cable route.

Regardless of all this, BEIS inexplicably gave its consent to both changes requested by SPR by two letters dated **March 2016 and as late as January 2017** without any requirement that the Bawdsey to Bramford cable route be used for EA1N and EA2. BEIS/PINS seemingly did not realise the disastrous consequences of their decisions and actions. Those consequences were triggered by the National Grid without any prior notice or warning changing the connection location from Bramford, using the Bawdsey to Bramford cable route, to the Sizewell/Leiston area. This is recorded in the minutes of a meeting between PINS and SPR on 7 September 2017 in which it is baldly stated *“National Grid have reviewed the projects connection options and are varying the connection locations; which means that the connection point for both projects will be in the vicinity of Sizewell/Leiston”*. No one appeared to appreciate or recognise the disastrous consequences of that National Grid decision at that meeting. Nor does there appear to have been any challenge to that decision from PINS. How could National Grid unilaterally make that choice when agreements for a Bawdsey/Bramford connection had already been agreed in the first half of 2016 as recorded in the minutes quoted above? National Grid appears to be a law unto itself with no one seemingly being able to hold it to account. Why did neither SPR or PINS challenge National Grid?

Those consequences are that for EA1N and EA2 a whole new onshore cable route is now required with a landfall in a different location carving another swathe through the East Suffolk countryside including through the AONB. Worse still a new 30 acre substation complex 18 metres high is planned to be built in an undeveloped rural location rather than at Bramford as originally consented.

This is the reality which East Suffolk is now facing, with the prospect of yet more so called offshore wind-farms to come aside from all the other energy projects referred to above.

The proposed new cable route will start on the Suffolk Heritage Coast immediately to the north of the attractive holiday village of Thorpeness and then pass through the Suffolk Coasts & Heaths AONB. It will traverse a further 5 miles of countryside, crossing key roads, disturbing woodland and archaeological sites and finally arriving next to the peaceful village of Friston in the middle of the East Suffolk countryside where a brand new 30 acre 18 metre high substation complex will be constructed close to a number of listed buildings. All reasons no doubt for National Grid not originally offering a connection point in this area, plus of course the knowledge that EDF planned to develop Sizewell C nuclear power station in the same area.

It is incomprehensible how such a situation has been allowed to develop. Remember the Bawdsey to Bramford cable route could have accommodated and may even now accommodate all the power from these Scottish Power wind farms. This was the original intention. So, how did PINS/BEIS not realise the consequences of its decisions? Why did the statutory bodies consulted as part of the decision making process raise no objections to the onshore impacts of these changes? Those bodies included Suffolk County Council, Suffolk Coastal District Council, Natural England and **unbelievably the National Grid, who are a source of technical**

expertise of national importance but said nothing. Had PINS, BEIS and the local authorities and Natural England been aware of the consequences, it is hard to believe they would have agreed to the changes requested by SPR. In fact, it is unbelievable.

We are a community group set up under the auspices of Friston Parish Council that is trying to challenge Scottish Power Renewables' current plans. We have support from the neighbouring Parish Councils and other community groups. **We respectfully request that the BEIS and/or the DEFRA Select Committees:**

- 1. investigate and determine how such a disastrous failure in planning and coordination of so called offshore wind farm development has arisen and in particular (a) the role and accountability of National Grid, (b) the transparency of SPR in its dealings with PINS and (c) the failure of PINS to ensure the DCO for the EA1 project was properly administered;**
- 2. recommend corrective measures to address the immediate issues with current projects and prevent unnecessary environmental destruction, for example the reinstatement of the Bawdsey to Bramford cable route as the route for all Scottish Power offshore wind farms;**
- 3. recommend actions to ensure effective long-term planning for all energy projects that may impact East Anglia so that offshore wind power and renewable energy generally is not developed at the cost of the onshore environment.**

This is a complex and sorry tale and this letter is a summary of what we believe has happened. A timeline is attached which sets out the sequence of key events. We would be very pleased to meet with you and any members of the committee to discuss this subject in greater detail and answer any questions you may have.

Given the magnitude of the failings exposed, we have issued the attached press release to national and local print and broadcast media.

Yours faithfully

Michael Mahony
(mncmahony@btinternet.com)

Enc. East Suffolk map, Media Release, Timeline

Letter circulation list attached

* A simple metric based on the designs currently being proposed is that for every Gigawatt of off-shore power to be landed onshore, up to 20 acres (8ha) of flat, flood-free land, and close to a National Grid 400kV transmission network is required for the substations. Given the Crown Estates aspiration for landing 25 Gigawatts of power from its current Round 3 wind-farm leases, that amounts to potentially **500 acres** (160ha) of suitable land that has to be allocated, not including all the land required for the construction of 50 metre wide underground cable routes from the coast to the agreed National Grid connection points.

** From 2008 onwards, the National Grid, sponsored variously by the Crown Estate, DECC and OFGEM, carried out studies on the implications of connecting large quantities of Round 3 off-shore energy to the transmission network. This culminated in the ENSG report 'Our Electrical Transmission Network: A Vision for 2020' published in 2012. **However, NONE of these reports in any way adequately explained the onshore land allocation implications of**

either the proposed wind farms destined to be constructed in response to Round 3, or of the anticipated Interconnectors to other countries.

And the main thrust of all those reports has been that it is for the offshore energy companies to find ways of bringing their power to the existing National Grid network, rather than taking the surely obvious strategic approach of proposing brown-field coastal sites suitable for substation construction and extending the existing 400kV Super-Grid to these coastal locations. Whatever solution was chosen, planning consents and expenditure would have been required. To have proposed that multiple competing energy companies each burrow their own way from the coast to inland National Grid sites, the latter mostly lacking sufficient land for gigantic substations, was clearly madness of the highest order.

All this is emphasised in a report prepared for the Crown Estate in 2008 which states *“Extending the onshore transmission out to the coast to minimise the amount of onshore cabling from the East Coast wind farms was not considered in detail. This solution would necessitate a new 400kV double circuit line from a new coastal substation to Norwich”*.

And of course, that would have meant National Grid taking an initiative to make the case for a strategic investment, something they seem to strive very hard to avoid.