

Written evidence submitted by Suffolk Energy Action Solutions (SEAS) (GRI0083)

Introduction to Suffolk Energy Action Solutions (SEAS)

Suffolk Energy Action Solutions was set up in July 2019 in order to promote modern, smarter offshore solutions for wind energy delivery with connections to the Grid at brownfield sites closer to demand. We are a forward and outward-looking volunteer community group and as part of our efforts we have interviewed and reached out to Belgium's Elia, Holland's TenneT, academics and specialist advisers

We have explored Britain's needs to accelerate our generation of 50GWs electricity, researched innovative technologies including superconducting cables, examined barriers including social, economic and environmental as well as regulatory. We have also identified issues relating to the current planning processes and roles of the various actors responsible for energy infrastructure. We have submitted papers to over 30 consultations since 2019 and have submitted proposals to Government and relevant institutions on a smarter way forward

Our reason for submitting evidence

Our team and our supporters have a deep love of the Suffolk Heritage Coast, roughly defined as the coast and hinterland from Southwold down to Orford. We are alarmed at the mistaken idea that industrial scale infrastructure will bring any benefits to the area. Beyond the environmental and visual blight in and near AONBs and SSIs, we are gravely concerned about the damage to the local visitor-based economy, and therefore employment prospects for the future

At the same time, we strongly support the moves to Net Zero and Energy Security. Accordingly, we are motivated by both local and national interests to achieve the best results for the people of Britain – for every generation, not just today's

1. Does the current national and DNO grid deliver the capacity needed for the future and, if not, what are the solutions?

No

The Electricity Grid has not been upgraded since it was built in the 1960's. Clearly the grid is already a constraint on the adoption of renewables and other clean energy

Britain needs an integrated, objective approach to planning and delivering an integrated grid to meet future needs. This needs to consider all aspects including onshore, offshore and links to other countries

This work should be the focus of a truly independent body. The planned evolution of the NG ESO into a Government owned and controlled "FSO" is the way forward. The FSO should be properly resourced (skills, funding) and supported by the Government

The FSO should be established as quickly as possible. Currently, its establishment is covered by the Energy Bill. As there are timescale risks to this bill, we would support Government

fast-tracking the FSO by another mechanism. This is an energy and climate crisis – as Churchill said “Action This Day”!

We fully endorse the findings of the recent Winsor report which addresses these points. Implementation should be accelerated

2. Has the organisation of the National Grid proved a barrier to the installation of renewable energy sources, and if so what could be done to remedy this?

Yes

Effectively the British national electricity grid has wholly devolved to **National Grid plc**, with regulation provided by Ofgem. In its early years, National Grid acted in the national interest, but now the profit motive has become predominant. Unfortunately, this has occurred as Government has reduced its role in this area and has failed to address regulatory changes which were needed. Only now are these being recognised, yet they are still to be addressed fully and quickly (see answer to Q1 above)

Evidence of National Grid’s self-interested approach include:-

- a) Repeatedly telling the public at consultations that offshore options are “far too difficult”. Strange when all of a sudden offshore links are authorised from Scotland to England (EGL2 – 2GW link, 436km undersea) and Sea Link from Kent to Suffolk crossing the Thames Estuary (previously described to us as an almost impenetrable barrier due to Unexploded Ordnance, shipping lanes, etc...)
- b) Constantly telling Ministers and the Press that the offshore alternative to the Norwich-Tilbury grid upgrade (new pylons are proposed) is “Five times more costly”. Not if you take the power from the windfarms off the north Norfolk coast by subsea cable to Tilbury. National Grid is being deliberately misleading by suggesting a non-sensical offshore route starting at Norwich involving two unnecessary onshore cable routes (from the north coast to Norwich, then from Norwich to the east coast)
- c) Lack of transparency. Despite multiple documents, some of over 100 pages, NG never really provides detailed cost data. It is therefore difficult to assess their options properly and provide constructive alternatives. NG then fail to give any consideration of realistic options: “it’s all too difficult”, “our hands are tied by Government”, “too costly”, etc...
- d) Lack of early communication and consultation. Failure to do so led NG ESO to believe a major new sub-station site at Friston in East Suffolk would be a suitable alternative to the Sizewell site, 5km away. This was based on an office-based map study, objections from EDF and a misperception by the District Council that this might in some way be beneficial. Had local knowledge been captured earlier, it would have been apparent that it is not a good location and that local objections would be considerable, especially as alternatives exist at brownfield sites (e.g. Bradwell-on-Sea, Tilbury, Isle of Grain)
- e) Disingenuous approach to Planning Examination. Instead of subjecting their proposal of Friston as a new grid connection to proper public examination, National Grid kept a low

profile during the examination of Scottish Power Renewables' EA1N and EA2 projects. We believe this was to avoid scrutiny of Friston as a proposed major infrastructure hub. It may also have been to present a fait accompli, as SPR were unable to challenge it and could themselves present it as though they had no choice in the matter. SPR's reticence to engage with campaign groups and their recent failure to cooperate in the OCSS are not transparent behaviours and are not in the best public interest

These are just some examples out of many. It is alarming that National Grid still have the ear of Government as well as credibility in the Media

The establishment of the **FSO** presents many opportunities to re-balance public and commercial drivers on the British electricity grid. The FSO will have a key role in establishing the Future Framework. This should be HND based where the Spatial Strategy is established at the outset and super energy hub sites designated on brownfield sites close to the point of demand. These core principles should be ratified and then the cost efficiencies calculated taking into account all cost savings derived from unnecessary radial cable trenches and onshore substations. Currently, National Grid does not include significant cost savings for Britain because they "are the costs of other developers, so we don't include them in our estimates for costs or cost savings" (confirmed at a meeting by an NGET Director July 2023). In other words, Government must not accept the cost assessments as they are currently presented by National Grid because they are incomplete and flawed

An example of how the system has failed East Anglia illustrates the lack of objectivity from the supposedly "independent" ESO, currently wholly owned by NG plc. The ESO has failed to present a cost analysis of the upgrade opportunity at Bradwell-on-Sea in Essex. This is a brownfield site which would be a very strong alternative to Friston, including an overall 17% cost saving (SEAS estimates based on comparator projects). The new FSO should consider upgrades to existing brownfield sites before plundering heathland and rare wetlands along Heritage Coasts. Their assessment should be transparent and be used as a comparative evaluation with Friston. SEAS has presented their comparative assessment and this should be discussed with any new independent team set up to evaluate the opportunity for super hub sites. The historic assessments of Bradwell are also deeply flawed because they do not take account of the updated offshore power targets nor the cost efficiencies derived from pooling energy offshore

Britain needs an **Ofgem** with a revised, more sustainable mission. Currently the criteria of best consumer price causes the wrong, short-termist decisions to be made. Their new mission needs to encompass full HND criteria and cost efficiencies achieved in the mid- to long-term by pooling energy at sea.

3. Should there be more innovation and devolution in the development of the Grid?

Innovation

Yes

There should be greater consideration of alternative options, even where these might at first sight seem difficult or costly, or not in the commercial interest of one party

In the case of offshore windfarms (which will be a mainstay of Britain's power supply), greater thought needs to be given to taking power undersea from source of generation to point of demand. Use of brownfield sites will generally reduce community damage and resistance, whilst regenerating an area that needs it. Medium-term ideas such as energy islands and "wind to hydrogen" need to be researched urgently

Devolution

No

This is an example where central planning is in the public interest. National infrastructure is by its nature monopolistic and should not be left to the free market. The Future Framework has to be devised centrally in order to halt the current ad hoc fragmented approach

Local communities should however be fully consulted at the outset in the new process as set out in the Winsor Report regarding the HND criteria in order that the FSO can benefit from local knowledge and insights which can be missed by desk research and national mapping surveys. We propose a local community energy infrastructure team including volunteer engineers, tourism specialists, archaeologists, air quality specialists and environmentalists is established in parallel with involvement from local Parish Councils (who generally lack these capabilities)

4. What changes should be made to the planning system to enable it to increase the use of renewable energy?

We consider that in the area of offshore windfarms, where we have considerable knowledge, the developers are being given too much leeway. Sub-optimal decisions are being made and progress is haphazard. The new FSO should decide the structure of the grid and be firmer in insisting on coordination of landfall connections to the grid, in the public interest

The Offshore Wind regulations need to be changed swiftly to allow developers to integrate with offshore platforms which can act as network hubs. Responsibility for planning and commissioning these platforms should be vested with the FSO. Funding and ownership questions would, of course, need to be addressed

There are a number of lessons being learnt as the planning process stumbles forward. These include the need for early consultation, for correct application of the Treasury Green Guidelines and compulsory compliance with the HND principles (cost, deliverability, environmental impact and community impact)

The planning process can be accelerated by minimising onshore impact from the start. This has been achieved with the Scotland-England EGL2 link which has recently had planning consent granted by all relevant authorities, with no material objections or delays

There are some subtle aspects to these principles which tend to get ignored by simplistic top-down viewpoints. For example, community impacts are not just potentially increased jobs and prosperity. In some cases, these may be of limited number and temporary, whereas negative community impacts can be greater and longer-lasting. A quantifiable

example would be the damage to the Suffolk Heritage Coast visitor-based economy from multiple windfarm onshore infrastructure projects (on top of Sizewell C decade-long construction). A non-quantifiable example is the permanent blight on an area from pylons and other unsightly infrastructure, often in or close to AONBs and SSIs

Community Benefits are not the best way forward, they can act as short term “bribes” to put infrastructure in the wrong place, rather than looking at alternatives which are better for the environment and community, and may be economically better in the longer run

Future generations will thank us if we act quickly to address climate change, but will curse us if we blight our beautiful countryside to save money short-term

5. Is our planning system able to deliver more rapid development of new local infrastructure?

Yes

Implementation of the points raised above would actually accelerate the planning process as public concerns would be identified earlier and proper consideration of options presented for public debate and Parliamentary scrutiny. Objections to a well-considered solution would then be reduced and public buy-in could be greater

Similarly, a well-considered grid strategy formulated by a trusted, genuinely objective FSO would also increase public trust and confidence in proposals

Planning might also be accelerated by increasing the resources devoted to it, though not at the expense of overwhelming community interest groups who do the bulk of the local scrutiny work (mostly unpaid, of course)

6. Would regional, or nodal, pricing of energy facilitate a more flexible development of Grid infrastructure?

No

As previously answered, the free market does not provide an appropriate mechanism for planning the grid

7. What can be usefully learned from power transmission systems in other countries?

A lot can be learnt from other countries

Typically, other advanced economies have a much stronger central planning role for the national grid vested in the State. The North Sea countries also seem to be more imaginative, for example in pioneering the use of offshore energy hubs

Cross-region level planning is also more advanced. Again, the North Sea countries provide a good example of thinking about an integrated offshore grid which would bring cost savings and security of supply to all parties

We urge Government to set up a neutral team of specialists to advise their own civil servants and to provide inspirational guidance to the FSO. Current personnel at National

Grid have limited experience of these new technologies and solutions. Elia (Belgium) and TenneT (Netherlands) are two leading system operators. They are at least five years ahead of National Grid in their thinking and planning. Britain needs to be less reactive and more proactive. This is only possible if we have ambitious leadership combined with the resources required to make step change decisions – better, faster and cheaper

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