

Dear Sir/Madam,

SEAS (Suffolk Energy Action Solutions) are delighted to be in communication with National Grid Electricity System Operator (NGESO). We would like our paper to be published.

SEAS would like to take the opportunity to address the following questions raised in Annex 5 of your consultation documents, and include further comments at the end of the questions:

A. Holistic Approach to Offshore Transmission Planning Report.

Q.A1. Do you agree with our assessment of the key technology and system risk barriers coming from the Holistic Approach to Offshore Transmission Planning Report?

As you will see from our response below, we do not believe that you can assess technology and system risk barriers coming from the Holistic Approach to Offshore Transmission Planning in isolation of detailed discussions with local community groups.

National Grid can at last adopt state of the art offshore technology solutions, and we applaud the overall objectives set out in this new approach. Germany, Holland, Belgium, Denmark are leading the way in terms of new technology solutions. The U.K. has in our view, been slow to wake up to the opportunities and this consultation document is at least three years late. We know that new step change proposals and reports have gathered dust on shelves for years. However good the offshore integrated solutions are in the future. If NATIONAL GRID has neglected to consider carefully the most suitable location for the assets and landing points, NATIONAL GRID has negated the green credentials of that green energy.

Q.A2. Do you have any proposals on how to most effectively bring the technology to market for when needed?

It is of no use to expand the Offshore Wind Farm Transmission Network, if the Onshore Grid connections are not available. We know the present developer-

led, radial point-to-point system is destructive to the UK Coast. Do we want to live in an industrial waste land? Absolutely NOT! Developers trenching through 114km of Norfolk countryside, 38km around Ipswich and 11km through the specially protected habitats and arable land of Suffolk Coastal, at the behest of National Grid, is to our minds criminally bad planning. What is needed is investment from National Grid to look to BROWNFIELD sites near the coast to build new substations and convertor stations, to upgrade overhead power lines and pylons, and stop sweating the existing grid connections which are unfit and unsuitable to take the power that will surge through by 2030. The national grid system as it stands is not fit for purpose.

Q.A3. Do you have any additional evidence to inform the assessment we have made?

We have evidence that NATIONAL GRID has been tardy in setting out a Master Plan for offshore wind energy infrastructure. This strategy for the country as a whole should have been established at least three years ago. We have copies of reports dating back to 2005, 2008, 2011, and 2015, making recommendations to switch to offshore integrated solutions.

Coastal Suffolk communities are not prepared to be victims of NATIONAL GRID's failure to consider a holistic plan at the same time that they were awarding contracts to ScottishPower Renewables and others for wind energy farms and substations and inter-connectors in 2015 onwards.

Decisions were taken at that time based on short term cost considerations, purely in the interest of the developers in question and we would challenge, NOT in the interests of consumers. The decision for SPR to shift from Bramford to Friston for the location of EA1N and EA2 is a case in point. Consumers are NOT just interested in the lowest price for electricity. They value the countryside and their communities much more than NATIONAL GRID understands. We believe that NATIONAL GRID failed to value the countryside and communities when drawing up these ill-conceived plans. NATIONAL GRID's assessment lacks any in depth study of the real definition of "holistic".

Our definition of "holistic" is "the parts of something are intimately interconnected and explicable only by reference to the whole".

A full assessment would therefore need to include how environmental, social and economic concerns can be assuaged through this new approach.

Location sites for mega onshore infrastructure hubs should be presented at

the outset, as part of the national strategy, not slipped in by stealth into DCO plans for one small part of the total programme. This was the case for ScottishPower Renewables (SPR) East Anglia One North (EA1N) and East Anglia Two (EA2). Most readers could be forgiven for not knowing that NATIONAL GRID had squeezed in a DCO proposal within an SPR DCO proposal. We are reminded of Russian Dolls. Open one up and you have another.

Q.A4. Do you have any further feedback on the report?

SEAS believe that a whole chapter is missing from this report.

SEAS recommend that NATIONAL GRID inserts a Chapter on the new approach to site selection for onshore mega hubs, using holistic criteria.

SEAS urges your readers to check out our website to understand how thousands of local Suffolk and Norfolk residents have been campaigning for the last few years to halt the short-sighted plans for Counterfactual or radial connections to the Grid. We call these connections “spaghetti”.

If readers look at the video interviews on our SEAS website, they will understand the scale of anxiety, anger, frustration and incredulity that these communities have towards the way that they have been treated by developers and the NSIP process.

We are strongly in favour of renewable energy. We are proud that by 2030, East Anglia will be the recipient and courier for 44% of the UK’s total wind energy. We are forward-looking innovative thinkers. We cannot understand how or why BEIS and NATIONAL GRID have taken so long to step up to the plate. If we are to be truly world leaders in wind energy, the site selection is as important as the offshore technology step change. Let us do the right thing for our future generations. Let us not destroy unspoilt countryside needlessly. SuffolkEnergyActionSolutions.co.uk SEAS Campaign

B. Cost- benefit Analysis Report

Q.B1. Do you agree with our assessment of the costs and benefits?
We are not specialists in cost benefit analysis.

However, we are pleased to note that the cost benefit of an integrated design for the whole of the offshore network is 19% lower than that of the spaghetti/radial model.

We also note that the capital expenditure required for the eastern region is 30% lower.

We applaud the fact that the U.K. will be able to export wind energy in the future.

Q.B2. Do you have any other evidence to support or challenge the assessment made?

We challenge the cost benefit method. We cannot agree with this superficial assessment.

We believe that a VALUE has to be placed on the countryside which is either saved or destroyed by the way in which developers trash or protect our countryside.

There should be a hierarchy of criteria applied to the holistic assessment. A traditional cost benefit analysis is no longer fit for purpose. How does NATIONAL GRID value a pure red deer? A turtledove? A great crested newt? A fen orchid? An ancient oak? Mental health issues? Well-being of communities?

We suggest that sustainable design for wind energy onshore infrastructure is a major factor in the equation and that ecological considerations, social and economic well-being are all factored in to the new approach to assessment. This would ensure that better decisions are taken concerning the selection of sites.

Q.B3. What do you see as the potential impact on the environment of these proposals, particularly the reduction in the number of assets and landing points?

We welcome the concept of mega hubs on brownfield sites.

This should be the rule for all future site selection.

The reduction of assets and landing points makes sense from a cost efficiency basis, but also from an environmental perspective and in view of the wider economic context.

There is no reason that this CLUSTERING cannot be the way forward for all projects currently in discussion including SPR's EA1N and EA2, not due to be completed until 2028.

Coastal Suffolk is worth saving from the current threat of industrialisation. Make SPR's EA1N and EA2 the pilot test for this new integrated solution.

Q.B4. Do you have any further evidence on the potential social and community impacts of these proposals?

There are already numerous cases of ill health and mental health issues prompted by the huge anxiety for the future.

Look at Alan Cardy's video interview on our website. Alan suffered a stroke soon after hearing about SPR's plans for despoiling Friston. His wife subsequently suffered a stroke. They live within meters of the site border. They retired to their little bit of paradise only to discover that it was about to become hell on Earth.

We could give numerous examples of the depth of feeling here in rural Suffolk. It's the same situation in Norfolk.

The choice of brownfield sites in place of Friston and other unspoilt countryside locations would lift a huge cloud hanging over thousands of people in Aldeburgh, Thorpeness, Snape, Woodbridge, Southwold, Walberswick, all the little villages in between. The ripple effect is far greater than just one village.

Q5. Where do you see value for further work to build on and test these findings? From beyond?

We ask NATIONAL GRID to visit this region for an accompanied tour of the specific areas which will be affected if these ill-conceived plans go forward. The holistic strategy requires NATIONAL GRID to examine and explore the CONSEQUENCES of their choices.

It is always hard to show evidence for something that has not yet happened. We have to have imagination to think about those consequences and to consider better alternative solutions. We have given up over a year of our life to do this research. We would like NATIONAL GRID to give up time to visit and evaluate the context from a qualitative as well as a quantitative perspective.

Detailed below a number of relevant issues that are not included in the questions above, along with Appendix 1 and Appendix 2.

Yes to Offshore Wind Energy, Let's Do It Right

As the BEIS Offshore Transmission Network Review terms of reference state, *"(let's) ensure that the transmission connections for offshore wind generation are delivered in the most appropriate way, considering the increased ambition for offshore wind to achieve net zero. This will be done with a view to finding the appropriate balance between environmental, social and economic costs"*.

1. Background

SEAS is a growing grass roots movement, founded in August 2019, representing thousands of people from Suffolk, Norfolk and across the UK. We have dedicated volunteers exploring better holistic transmission infrastructure solutions for the UK, using brownfield sites and new offshore technology.

The current plans for Counterfactual project delivery are outdated and the adverse impacts outweigh the benefits. These plans were devised without exploring the benefits of new offshore technology and more integrated solutions, choosing semi-industrialised sites for the substations and interconnectors.

2. The current Structure for policy and decision making is no longer appropriate

We challenge NATIONAL GRID, BEIS, the Government and Ofgem to reassess the following:

2.1. We believe that the choice of site for these infrastructure complexes should not be the sole responsibility of NATIONAL GRID and BEIS. The ramifications of their site locations are far greater than NATIONAL GRID or BEIS or Ofgem have historically acknowledged. Their perspective on these projects has been far too narrow and wrongly focused on short-term answers and so-called customer value. They should not have the right to determine the

destiny of rural communities, rich ecology and biodiversity, heritage, landscapes, tourism and economic well-being, not to mention the mental health of all those people affected directly and indirectly. We believe that the site locations should be the responsibility of a broader team comprising ecologists, economists, road planners, local Council planners, heritage custodians, local residents as well as infrastructure engineers. BEIS should have to work in partnership with DEFRA and the Ministry for Planning to come to a conclusion which balances the environmental, economic and social considerations. The current site selection system is too skewed in favour of the developer and the short-term cost considerations. Sustainable, enduring strategies are not realised.

2.2. The NSIP DCO process is no longer fit for purpose. These NSIP processes do not take into account all aspects of an application. They do not study in depth the ecological consequences of a series of numerous substations and interconnectors planned for a particular Hub site. For example, ScottishPower Renewables EA1N and EA2 has submitted a DCO application which does not reference the concatenation of 8 substation and interconnector projects planned for the same site that have since 2019 been revealed (See Appendix One). Biodiversity studies are therefore woefully inadequate in their assumptions because they do not consider the 12 to 15 years of construction and the scale of the ultimate Mega Hub planned by National Grid. Traffic forecasts, air quality studies, adverse impacts on tourism, the economy, social well-being and the essential rural character of this region are consistently underestimated as the Terms of Reference do not include the full gamut of projects. This current NSIP DCO process gives NATIONAL GRID a carte blanche to carve up the countryside in whatever way it chooses. NATIONAL GRID has far too much control over the choice of site and connection to the Grid. This is clearly wrong.

2.3. National Grid ESO should be an entirely separate organisation and be renationalised. We believe that as long as it is a private company, it cannot ever deliver the right solutions, because a private company is motivated by bottom line profit and this should NOT be the primary driver for an organisation whose raison d'être should be concerned with a bigger picture, a holistic strategy requiring a more sophisticated understanding of the VALUE placed not only on the efficient delivery of electricity but on the environment, ecology, biodiversity, social and economic well-being and health.

We do not know Dermot Nolan (ex Chief Ofgem), but we are pleased that someone who has come from Ofgem can now finally see the bigger picture. *“I think it is a good time to go for a fully independent system operator,” Mr Nolan says. “I think the perception would be that in order to build a large grid offshore, and continuing to build the grid onshore, the planner for that system should be independent of the existing network owner and of someone who will be competing to build new network, as well.”* (The Times, 8 October 2020)

3. A case which proves the point: SPR EA1N and EA2

If we look at the current plans for what NATIONAL GRID calls Leiston/Sizewell, there are 8 substation and interconnector projects planned. In Appendix One (the complete programme of infrastructure projects currently planned for Friston site), we list these.

If these plans are given the green light by the Inspectorate and by BEIS, the severe adverse impacts will greatly outweigh the benefits.

No one disputes the benefits of wind energy.

However, as we write in Appendix Two (Environmental Audit Committee Inquiry: Offshore Wind), green energy is no longer green if there is permanent damage to the environment with all the related impacts we outline as a consequence of the wrong site being chosen in the first place.

National Grid is intent on sticking to its chosen site of Leiston/Sizewell for these projects. Whilst it is very slowly but finally updating its plans for offshore delivery including the use of HVDC technology, it is head in the sand when it comes to choice of site. The nub of the issue is no longer the offshore technology because NATIONAL GRID, a late adopter, is starting to follow the lead from countries such as Germany, Holland and Belgium in switching to these new more integrated solutions using HVDC. However, NATIONAL GRID should be motivated to look at these semi-industrialised sites instead of using precious unspoilt, tranquil countryside close to a highly successful visitor destination, Aldeburgh. This destination is successful because it is a rare haven for bird watchers, ramblers and dog walkers, where one can enjoy Nature, the beauty of the countryside and tranquillity.

We are currently preparing our Written Representations for the PINS Inspectorate for 2 November 2020 deadline. These submissions will show the forecasts for Biodiversity depletion, the despoiling of a medieval village, the increase to health risks as a consequence of poor air quality, the certain decline in tourism, an economic meltdown for the wider region and the

associated ill health and mental health issues. SPR advertises its green energy credentials loudly to all the world. NATIONAL GRID waves the green energy flag. Wind Energy is the modern Gold Rush. The UK can benefit from this source of electricity. We applaud the commercial opportunities for developers. However, National Grid and SPR are only interested in short-term fixes and shareholder bottom line. If they were motivated to value the holistic picture, they could become green energy pioneers. As things stand right now, they are dirty green energy pioneers.

4. Alternative sites: brownfield

We have carried out our own research including field sites to Bradwell and Bramford.

We believe that the studies carried out by SPR and NG at the outset were flawed. We will be giving evidence to this conclusion at the PINS Examination. We believe that the site of Friston was chosen first and then the rationale came afterwards.

Bradwell has been consistently proposed by our local MP Dr. Therese Coffey. At the recent Open Floor Hearings, she stated, "*throughout the consultation stages, I have suggested alternatives to ScottishPower Renewables, including the proposed nuclear brownfield site at Bradwell, which would have meant less onshore cabling and substations in a more appropriate location*".

Bradwell makes good sense. It is a defunct brownfield nuclear site. There is the space. NATIONAL GRID already owns land there which was used for a now defunct substation. The nuclear power station may never be constructed by China General Nuclear Power Group but even if it was there is sufficient space adjacent for a complex of substations. The local residents have voted in favour of renewable energy infrastructure going in place of the nuclear power station and as Councillor Mark Cory of Wivenhoe says, "*we prefer renewable energy*".

The pylons would need to be upgraded and the cost of HVDC to Bradwell with the associated costs is greater than for Friston, however the additional costs are reasonable and can be paid for in a three-way system: Government subsidy; levy on developers; consumers premium for keeping green energy

truly green.

We also urge the NATIONAL GRID and BEIS team to reassess Bawdsey to Bramford. With new HVDC technology, this may be a better solution for EA1N and EA2 whilst the subsequent substations and interconnectors could go to Bradwell.

We have also considered Lowestoft and Norwich Main. They are geographically in logical locations for the wind farms.

Sizewell is not an option. It has been reserved by EDF for some sort of nuclear power station, possibly not the one currently going through a DCO process as it is too big for the site, too expensive and the technology is outdated and unproven. New fission technology may be relevant in the future.

5. Conclusion

We ask NATIONAL GRID and BEIS to review the appropriate decision-making structure for the future to ensure that the bigger picture is considered and that this short termism approach to site selection is scrapped. With the advent of MPIs, MOGs and other new innovative offshore solutions, we have no excuse to choose unsuitable locations for the onshore infrastructure.

We have consulted with specialists and engineers including ELIA, K2, Professor Tim Green (Imperial), and they have all confirmed that the UK does not currently have a Master Plan and that this new technology can resolve many issues delivering synergies and cost efficiencies. These new solutions can deliver green energy in a green way. Then we can be proud of our legacy for future generations. Coastal Suffolk can be saved.

SEAS (Suffolk Energy Action Solutions)
www.suffolkenergyactionsolutions.co.uk

Attachments: Appendix 1 – Cumulative Effect / Appendix 2 – EAC submission

Yes to Offshore Wind Energy,

Let's Do It Right