Great Horkesley PARISH COUNCIL

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Great Horkesley Parish Council response to Five Estuaries Offshore Wind Farm Application

We refer to our original responses to the Norwich to Tilbury Consultation and Sealink Consultation (attached).

Our Parish includes part of the Dedham Vale National Landscape (AONB) which is impacted by the Norwich to Tilbury (N2T) proposed pylon and underground cable route; the route of which both traverses and abuts the National Landscape / AONB and our Parish for the reason of connecting to the EACN, itself justified by Five Estuaries (and North Falls & Tarchon). The proposed N2T route deviates precisely to enable such connection and the deviation is significant with material adverse impact on the National Landscape / AONB and its immediate surroundings.

This proposal needs to be seen together with EACN and N2T because of the cumulative impact. EACN exists only because of NF/FE and the fact that others such as Tarchon may also connect does not change that. In fact it makes it worse in cumulative impact terms.

We wish to draw particular attention to NPS-EN5 such that (1) impact on, merely not within AONB is relevant (2) from a planning perspective even minor residual impact is unacceptable

The SoS can only approve in cases where it is demonstrated that the proposals have a positive impact on the AONB and furthers its aims and purpose and the SoS lacks competence to approve otherwise (see the Dedham Vale Society v Secretary of State judicial review case concerning Manningtree Car Park).

We do not consider the project improves the AONB or furthers its purpose – indeed it substantially detracts from such and causes irreparable harm. In our Parish the current proposals include both pylons and underground cabling (in 120m wide trenches) and the associated infrastructure including sealing end compounds with multiple gantries. These are located in the immediate vicinity of the AONB.

The various projects are all interconnected and their cumulative impact cannot be ignored. These developments would have severe and lasting impacts on both the Dedham Vale National Landscape itself and its wider setting, causing significant harm thereto.

We continue to object to the Five Estuaries project and N2T and consider that the significant harm to the AONB/National Landscape is unjustified (and further that it cannot be demonstrated that there would be a positive impact).

National Grid Sea Link Consultation December 2023

Consultation Response by Great Horkesley Parish Council (hereafter "Parish")

We support, endorse and subscribe to the submission of the "Great Horkesley, Little Horkesley and Fordham Against Pylons" campaign group although also believe that it is appropriate to provide specific and detailed response to your proposals.

1) We have provided feedback to National Grid in respect of their Norwich to Tilbury ("N2T") project, most recently during August 2023 (hereafter "FeedbackAugust23").

2) In FeedbackAugust23feedback we noted that the N2T project is in breach of the Gunning Principles which are enshrined in Law, inter-alia through the lack of incorporation of real alternatives and because insufficient information and time had been given for due consideration.

3) In FeedbackAugust23 we also detailed the impact of the N2T proposals upon the Dedham Vale National Landscape (formerly Dedham Vale AONB, hereafter both "AONB"), and our Parish, highlighting that very significant damage will be caused both to the AONB and to our Parish. This damage will impact protected landscapes, landscapes which despite lack of protection are nevertheless of great value and which share characteristics with protected landscapes, heritage assets including Grade I and Grade II listed buildings, Archaeological sites dating back to Roman times and before, areas of significant community amenity and ecology.

4) In our Parish, the N2T proposals will include the use of Sealing End Compounds which cause particular harm over a widespread area and will be greatly visible within the AONB.

5) We are further aware of the work by National Grid ESO entitled "Early Opportunities, ESO Assessment Criteria, North Falls, Five Estuaries, Nautilus, Eurolink and Sea Link pathfinder project" dated June 2022 (hereafter "ESO2022") which was released by National Grid pursuant to a request under EIR. ESO2022 is included in the appendix to this document.

6) ESO22 considers in detail the 'Status Quo' alternative comprising of radial connections back to shore for North Falls and Five Estuaries and Sea Link combined with the N2T proposals, counted against 10 other alternatives of which 9 would avoid the need for N2T infrastructure in Tendring, Dedham Vale AONB and mid-/north Essex entirely. Some of these 9 alternatives relied only upon Sea Link, North Falls and Five Estuaries, others included EuroLink and / or Nautilus.

7) Of the 9 alternatives which void the need for infrastructure in Tendring, and hence remove the need for damage to the AONB, Tendring, North Colchester and our Parish

ESO22 included 7 options making use of Sea Link (Scenario 2, Scenario 4, Scenario 5, Scenario 6, Scenario 8, Scenario 10 and Scenario 11).

8) ESO concluded that the alternative of using Sea Link to bring power back to shore from the two windfarms would be possible.

   The most plausible alternative Scenario 2 was deemed to be 'Green' along all considered axes save for those associated with 'Technical Obligations and Compliance' and 'System operability'.

   With respect to the former, no significant challenges were identified beyond those which "may require some thought".

   The "System Operability" issue was an observation that with less cables there are reduced alternatives for network management, although it is not obvious that this is true when topology is properly considered: as Sea Link would have an additional interface halfway along its length electricity could be directed either northwards or to the south.

   Other alternatives did include 'Red' status but due to cable capacity. It should however be noted that since the publication of ESO2022 the North Falls windfarm has been reduced in scale and hence the risk identified would no longer occur. Even if North Falls were to be built to the original specification, the concerns are manageable through improved design, for example, the risk of injecting 3.5GW into a 2GW cable can be managed straightforwardly by sending half of the power through the northern Sea Link leg and half through the southern Sea Link leg.

   Alternatively, adding one extra cable would bring both legs to 3GW capacity to make a capacity of 6GW in total.

9) We consider that the proposals outlined in ESO2022 constitute real and valid alternatives to the N2T proposals, at least in so far as the AONB, Tendring and North Colchester area is concerned, including our Parish.

10) The consultation for Sea Link has therefore been conducted too narrowly, a much wider area including the Dedham Vale, Tendring, North Colchester and our Parish should have been included. Consultation events should have been held in these areas, residents provided with information and made aware of the consultation through letter, leafletting and local community magazines.

11) The information provided during the course of the Sea Link consultation is too narrow, pursuant to the Gunning Principles it was required to include information – known to National Grid – of alternatives including those set out in ESO2022 to all consultees.

12) Making use of Sea Link to interface with Five Estuaries and North Falls offshore would generate very significant cost savings.

Firstly, underwater cabling as well as sub-sea and onshore engineering by the windfarms would be eliminated. These costs typically include significant lengths of expensive underground cables between the shore and windfarm substations. Although these costs do not directly fall to National Grid at the time of construction, they would later fall to National Grid as a required purchaser of the assets given that the windfarms cannot legally both generate and transmit.

Secondly, the need for Windfarm substations in Tendring would be removed.

Thirdly, the need for National Grid substations in Tendring as part of N2T would be removed.

Fourth, the need for underground cables built by National Grid through the AONB and in Great Horkesley within the N2T plans would be removed, which represents a significant proportion of the costs of the N2T project.

Set against the sum of these savings this would be a degree of engineering offshore, although likely nothing more complex or costly than that already included in the radial connections of the Windfarms due to the similarity in technical use case and hence a very substantial saving overall is to be expected.

13) Making use of Sea Link to interface with Five Estuaries and North Falls offshore would remove the need for N2T infrastructure in the AONB, Tendring, North Colchester and our Parish thereby essentially eliminating damage described in (3) above to protected and other landscapes of high value, heritage assets including Grade I and Grade II listed buildings, Archaeological sites, areas of significant community amenity and ecology.

14) Making use of Sea Link to interface with Five Estuaries and North Falls offshore would remove entirely the proposed Sealing End Compound arising from N2T.

15) Holford Rule (1) states “avoid altogether, if possible, the major areas of highest amenity value, by so planning the general route of the first line in the first place, even if the total mileage is somewhat increased in consequence.“

16) Horlock Rule (2) states that sealing end compounds should “as far as reasonably practicable seek to avoid altogether international and nationally designated areas….”.

17) Given the obvious benefits to the AONB, use of Sea Link to bring electricity from North Falls and Five Estuaries back to shore would have been **required** by both Horlock Rules and Holford Rules had it been considered.

18) Finally, use of Sea Link to bring electricity from North Falls and Five Estuaries back to shore would have a major positive impact when assessed against the Treasury Green Book criteria.

19) We support and call for the use of Sea Link to carry electricity from North Falls and Five Estuaries, removing the need for the N2T infrastructure in the AONB, Tendring, North Colchester and our Parish and thereby removing the damage described in FeedbackAugust23.

20) We note that the choice of landing sites for Sea Link will also be a matter of debate and potentially controversy as currently planned. We urge the use of brownfield sites in already industrialised areas and that National Grid listen carefully to the views of local residents and councils in those areas selected.

Appendix – ESO2022

Early Opportunities workstream

ESO Assessment Criteria :– North Falls, Five Estuaries, Sea Link, Nautilus (abbreviated to "NFSN") pathfinder project

Background

The NFSN pathfinder project has currently identified a number of options for potential coordination. RUK (utilising Arup) is leading on a piece of work which looks to analyse these options, with a view to identifying one or more preferred options, which could then be reviewed in greater detail.

ESO has commissioned Afry to complete a study which assesses the constraint costs associated with the options. This information will be fed into the analysis undertaken by the developers and RUK.

Scope and context

In undertaking this assessment we will be seeking to provide our view on a number of areas which are broadly associated with the requirements that currently exist for a developer when they enter into a connection agreement with the ESO.

In assessing each model using the RAG status we will consider what challenges may arise in each assessment area, whilst being cognisant of the timescales each developer is working to. Thus, our RAG statuses are relative to each other; a "green" does not mean that the option is simple or easy to achieve, it simply means that in our view it is easier to achieve within the timeframe required than a status of "Amber" or "Red" would denote.

For the avoidance of doubt, this exercise has not considered the impact on the onshore transmission reinforcement works and system studies or modelling have not been undertaken.

This is our initial view based upon the information available at the time. The assessment may be subject to change when more information is available.

Areas for assessment	Areas under review
Contracts and Offer process	Determine whether the existing and proposed changes to the contracts and associated processes are fit for purpose for this model
Charging	Determine whether the existing and proposed changes to the charging methodology are fit for purpose for this model
User commitment (Securities and Liabilities)	Determine whether the existing and proposed changes to codes and standards are fit for purpose for this model
Technical obligations and compliance	Determine whether the existing and proposed changes to Grid Code and / or SQSS requirements are suitable and that compliance can be demonstrated
System operability	Determine whether there are any operability risks associated with this model
Codes and standards	Determine whether there are any changes required to codes and standards for this model

Impacts broadly known and required changes are planned and / or in progress. Limited risk of delay.

Mix of known and unknown impacts. Further detailed work required in some instances. Potential risk of delay where identified outcomes don't align with project timescales.

Impacts are complex and / or unknown and timing for implementation of any changes could cause delays to the project proposal.

Status Quo and Coordination Options

Coordination Options (continued)

Nautilus Multi-Purpose Interconnector & Eurolink/Sea Link #8

EuroLink Multi-Purpose Interconnector #9

EuroLink Multi-Purpose Interconnector & Sea Link Hub #10

Sea Link Offshore Island #11

Scenario 1: Combined wind (NF & 5E combined)

Areas	Output	RAG Status
Contracts and Offer process	• Able to follow standard application to modification offer process • Bespoke clauses required for bilateral agreements reflecting arrangements	
Charging	• Able to proceed on the basis that CUSC code modifications that have been identified and are in progress. • Potential risk of delay associated with the implementation timescale of the mods vs the project timescales.	
User commitment	• Current methodology reflects apportionment of costs between parties • Subject to Ofgem final position on Anticipatory Investment	
Technical obligations and compliance	• Technical challenges broadly known, minimal changes likely unless the project adopts new technology.	
System operability	• Likely minimum impact, impacts pre-OFTO transfer would need to be considered. • Wider System Operability issues to be considered such as fault ride through, Grid Forming and inertia.	
Codes and Standards	• Changes scoped and in progress	

Scenario 2: Sea Link multi-purpose project (wind farms are connected to Sea Link on offshore platform)

Areas	Output	RAG Status
Contracts and Offer process	• Minimal changes required • Bespoke clauses required for bilateral agreements reflecting arrangements	
Charging	• Assume principles remain the same and funded through the existing needs case, needs some level of consultation	
User commitment	• Able to accommodate under existing arrangements	
Technical obligations and compliance	• Potentially multiple material challenges to be considered e.g. reduced system capability through Sea Link, generator connection through HVDC untested, risk of loss of infeed, Grid Forming and inertia issues may require some though at the Interface Point. Some thought may need to be given to fault ride through.	
System operability	• Reduction of options for network management as a result of the reduced system capability through Sea Link	
Codes and Standards	• Loss of infeed in progress	

Assumptions:
- Assumption made that the circuits and platforms to onshore are classed as onshore transmission i.e. not an offshore transmission system requiring an OFTO.
- The offshore platform is classed as the TIP and the developer wind farm is classed as offshore.

Scenario 3: Nautilus MPI (NF & 5E connect to Nautilus on offshore platform)

Areas	Output	RAG Status
Contracts and Offer process	• Clarity required regarding the classification of the asset (OFTO led vs interconnector led) e.g. access rights and unclear relationships	
Charging	• OFTO led – minimal foreseen issues • Interconnector led – not envisaged in the current framework, substantial work required to fully understand the impact	
User commitment	• OFTO led – minimal foreseen issues • Interconnector led – not envisaged in the current framework as is, substantial work required to fully understand the impact	
Technical obligations and compliance	• Challenges around capacities (wind farms 2GW, Nautilus 1.5GW) • Unknown obligations on the wind farms for compliance purposes • Loss of infeed	
System operability	• Potentially less visibility and control over the wind farms • Potentially less predictable interconnector behaviour due to variability between pricing and wind output • Grid Forming, inertia and fault ride through at the Interface Point	
Codes and Standards	• Likely change required dependent upon technical obligations and compliance • Changes as yet un-scoped and likely to be highly complex	

Assumptions:
- RAG status based upon interconnector led approach.
- Presumption that the wind farms do not wish to reduce their capacities.

Scenario 4: Two Hybrid Projects (NF, 5E connect offshore, one to Sea Link and one to Nautilus)

Areas	Output	RAG Status
Contracts and Offer process	• Clarity required regarding the classification of the asset (OFTO led vs interconnector led) e.g. access rights and unclear relationships (MPI)	
Charging	• Assume principles remain the same and funded through the existing needs case, needs some level of consultation (Sea Link) • OFTO led – minimal foreseen issues (MPI) • Interconnector led – not envisaged in the current framework, substantial work required to fully understand the impact (MPI)	
User commitment	• Able to accommodate under existing arrangements (Sea Link) • OFTO led – minimal foreseen issues (MPI) • Interconnector led – not envisaged in the current framework as is, substantial work required to fully understand the impact (MPI)	
• Technical obligations and compliance	• Unknown obligations on the wind farms for compliance purposes (MPI) • Potentially multiple material challenges to be considered e.g. reduced system capability through Sea Link, generator connection through HVDC untested, risk of loss of infeed • Grid Forming, inertia and fault ride through at the Interface Point.	

Assumptions:
- Assumption made that the circuits and platforms to onshore are classed as onshore transmission i.e. not offshore transmission system requiring an OFTO.
- The offshore platform is classed as the TIP and the developer wind farm is classed as offshore.
- RAG status based upon interconnector led approach.

Scenario 4: Two Hybrid Projects (NF, 5E connect offshore, one to Sea Link and one to Nautilus)

Areas	Output	RAG Status
System operability	• Reduction of options for network management as a result of the reduced system capability through Sea Link • Potentially less visibility and control over the wind farms (MPI) • Potentially less predictable interconnector behaviour due to variability between pricing and wind output (MPI)	
Codes and Standards	• Likely change required dependent upon technical obligations and compliance (MPI) • Changes as yet un-scoped and likely to be highly complex (MPI)	

Assumptions:
- Assumption made that the circuits and platforms to onshore are classed as onshore transmission i.e. not offshore transmission system requiring an OFTO.
- The offshore platform is classed as the TIP and the developer wind farm is classed as offshore.
- RAG status based upon interconnector led approach.

Scenario 5: Offshore DC hub (Two UK nodes – NF, 5E, Sea Link & Nautilus are delivered as a combined HVDC system(s))

Areas	Output	RAG Status
Contracts and Offer process	• Minimal changes required • Bespoke clauses required for bilateral agreements reflecting arrangements	
Charging	• Assume principles remain the same and funded through the existing needs case, needs some level of consultation	
User commitment	• Able to accommodate under existing arrangements	
Technical obligations and compliance	• Potentially multiple material challenges to be considered e.g. reduced system capability through Sea Link (3.5GW injection onto 2GW Sea Link), generator connection through HVDC untested, risk of loss of infeed	
System operability	• Reduction of options for network management as a result of the reduced system capability through Sea Link • Potentially novel / complex control system required (Three/Four ended HVDC) • Fault ride through and Grid Forming / inertia at the Interface Point	
Codes and Standards	• Loss of infeed in progress	

Assumptions:
- Assumption made that the circuits and platforms to onshore are classed as onshore transmission i.e. not an offshore transmission system requiring an OFTO.
- The offshore platform is classed as the TIP and the developer wind farm is classed as offshore.

Scenario 6: Offshore AC/DC hub (Two UK nodes – NF, 5E, Sea Link & Nautilus are delivered as a combined HVDC system(s))

Areas	Output	RAG Status
Contracts and Offer process	• Minimal changes required • Bespoke clauses required for bilateral agreements reflecting arrangements	
Charging	• Assume principles remain the same and funded through the existing needs case, needs some level of consultation	
User commitment	• Able to accommodate under existing arrangements	
Technical obligations and compliance	• Potentially multiple material challenges to be considered e.g. reduced system capability through Sea Link (3.5GW injection onto 2GW Sea Link), reduced impact on risk of loss of infeed compared to all HVDC options	
System operability	• Reduction of options for network management as a result of the reduced system capability through Sea Link • Fault ride through and inertia / Grid Forming at the Interface Point	
Codes and Standards	• Loss of infeed in progress	

Assumptions:
- Assumption made that the circuits and platforms to onshore are classed as onshore transmission i.e. not an offshore transmission system requiring an OFTO.
- The offshore platform is classed as the TIP and the developer wind farm is classed as offshore.

Scenario 7: Offshore DC hub (Three UK nodes – NF, 5E, Sea Link & Nautilus are delivered as a combined HVDC system(s) including a connection to East Anglia Coastal)

Areas	Output	RAG Status
Contracts and Offer process	• Minimal changes required • Bespoke clauses required for bilateral agreements reflecting arrangements	
Charging	• Assume principles remain the same and funded through the existing needs case, needs some level of consultation	
User commitment	• Able to accommodate under existing arrangements	
Technical obligations and compliance	• Potentially multiple material challenges to be considered e.g. reduced system capability through Sea Link (3.5GW injection onto 2GW Sea Link), generator connection through HVDC untested, risk of loss of infeed, four ended HVDC control system	
System operability	• Multiple options for re-routing power (may restore Sea Link capability) • Potentially novel / complex control system required (Four/Five ended HVDC) • Fault ride through and inertia / Grid Forming at the Interface Point	
Codes and Standards	• Loss of infeed in progress	

Assumptions:
- Assumption made that the circuits and platforms to onshore are classed as onshore transmission i.e. not an offshore transmission system requiring an OFTO.
- The offshore platform is classed as the TIP and the developer wind farm is classed as offshore.

Scenario 8: Nautilus MPI & Eurolink / Sea Link (NF & 5E connect to Nautilus on offshore platform, Eurolink connects to Sea Link at offshore platform)

Areas	Output	RAG Status
Contracts and Offer process	• Clarity required regarding the classification of the asset (OFTO led vs interconnector led) e.g. access rights and unclear relationships	
Charging	• OFTO led – minimal foreseen issues • Interconnector led – not envisaged in the current framework, substantial work required to fully understand the impact	
User commitment	• OFTO led – minimal foreseen issues • Interconnector led – not envisaged in the current framework as is, substantial work required to fully understand the impact	
Technical obligations and compliance	• Challenges around capacities (wind farms 2GW, Nautilus 1.5GW) • Unknown obligations on the wind farms for compliance purposes • Loss of infeed limits interconnector capacity to 1.8GW • New technology and need for new requirements	
System operability	• Potentially less visibility and control over the wind farms • Potentially less predictable interconnector behaviour due to variability between pricing and wind output • Potentially novel / complex control system required (Three ended HVDC) • Fault ride through and inertia / Grid Forming at the Interface Point	
Codes and Standards	• Likely change required dependent upon technical obligations and compliance • Changes as yet un-scoped and likely to be highly complex	

Assumptions:
- RAG status based upon interconnector led approach.
- Presumption that the wind farms do not wish to reduce their capacities.

Scenario 9: Eurolink MPI (NF & 5E connect to Eurolink at offshore platform)

Areas	Output	RAG Status
Contracts and Offer process	• Clarity required regarding the classification of the asset (OFTO led vs interconnector led) e.g. access rights and unclear relationships	
Charging	• OFTO led – minimal foreseen issues • Interconnector led – not envisaged in the current framework, substantial work required to fully understand the impact	
User commitment	• OFTO led – minimal foreseen issues • Interconnector led – not envisaged in the current framework as is, substantial work required to fully understand the impact	
Technical obligations and compliance	• Challenges around capacities (wind farms 2GW, Nautilus 1.5GW) • Unknown obligations on the wind farms for compliance purposes • Loss of infeed • New technology and need for new requirements	
System operability	• Potentially less visibility and control over the wind farms • Potentially less predictable interconnector behaviour due to variability between pricing and wind output • Fault ride through and inertia / Grid Forming at the Interface Point	
Codes and Standards	• Likely change required dependent upon technical obligations and compliance • Changes as yet un-scoped and likely to be highly complex • New technology and need for new requirements	

Assumptions:
- RAG status based upon interconnector led approach.
- Presumption that the wind farms do not wish to reduce their capacities.

Scenario 10: Eurolink MPI & Sea Link hub (NF & 5E connect to Eurolink at offshore platform whilst Eurolink connects to Sea Link at offshore platform)

Areas	Output	RAG Status
Contracts and Offer process	• Clarity required regarding the classification of the asset (OFTO led vs interconnector led) e.g. access rights and unclear relationships	
Charging	• Interconnector led – not envisaged in the current framework, substantial work required to fully understand the impact	
User commitment	• Interconnector led – not envisaged in the current framework as is, substantial work required to fully understand the impact	
Technical obligations and compliance	• Challenges around capacities (wind farms 2GW, Eurolink 1.6GW) • Unknown obligations on the wind farms for compliance purposes • Loss of infeed • New technology and need for new requirements	
System operability	• Reduction of options for network management as a result of the reduced system capability through Sea Link • Potentially novel / complex control system required (Three/Four ended HVDC) • Fault ride through and inertia / Grid Forming at the Interface Point	
Codes and Standards	• Likely change required dependent upon technical obligations and compliance • Changes as yet un-scoped and likely to be highly complex • New technology and need for new requirements	

Assumptions:
- Assumption made that the circuits and platforms to onshore are classed as onshore transmission i.e. not an offshore transmission system requiring an OFTO.
- The offshore platform is classed as the TIP and the developer wind farm is classed as offshore.

Scenario 11: Sea Link offshore island (NF, 5E, Nautilus & Eurolink connect to Sea Link at offshore island)

Areas	Output	RAG Status
Contracts and Offer process	• Minimal changes required • Bespoke clauses required for bilateral agreements reflecting arrangements	
Charging	• Assume principles remain the same and funded through the existing needs case, needs some level of consultation	
User commitment	• Able to accommodate under existing arrangements	
Technical obligations and compliance	• Potentially multiple material challenges to be considered e.g. reduced system capability through Sea Link (5.1GW injection onto 2GW Sea Link), generator connection through HVDC untested, risk of loss of infeed • New technology and need for new requirements	
System operability	• Reduction of options for network management as a result of the reduced system capability through Sea Link • Potentially novel / complex control system required (Four/Five ended HVDC) • Fault ride through and inertia / Grid Forming at the Interface Point	
Codes and Standards	• Loss of infeed in progress	

Assumptions:
- Assumption made that the circuits and platforms to onshore are classed as onshore transmission i.e. not an offshore transmission system requiring an OFTO.
- The offshore platform is classed as the TIP and the developer wind farm is classed as offshore.

Response of Great Horkesley Parish Council to the Norwich to Tilbury Consultation 2024

Great Horkesley Parish Council remains seriously concerned as to the consultations and as to the proposals consulted upon which we consider will cause significant harm to the Parish, including National Landscape AONB, and the wider area. We accordingly object to the proposals.

Great Horkesley Parish Council has serious concern as to significant deficiencies in the informal consultations carried out by National Grid in 2022 and 2023 and notes that these deficiencies have not been addressed or indeed properly considered and taint this statutory consultation in 2024, which itself is deficient. The route appears to have been pre-selected and a foregone conclusion, and breaches the Gunning Principles. It is not in accordance with the relevant NSP-EN5 as updated (see further below). There has been a lack of transparency and no proper and costed analysis of alternative options. We maintain our view that the consultation should be re-opened and commenced afresh with all options considered, including alternative routes and up to date technologies, specifically including offshore and HDVC underground cables, alongside full costings and impact evaluation, including not only the environmental cost, but the human cost too.

We are further concerned that the proposal has not demonstrated sufficient need. The routing is driven by the location of the EACN at Ardleigh, yet the need for such EACN is in serious doubt given that the relevant windfarms are willing to connect elsewhere via Sealink and given the considerable doubt as to whether the Tarchon interconnector ought to proceed (see further below).

Great Horkesley is a rural parish comprising a village and open farmland, and the Northern part of the parish falls within the Dedham Vale National Landscape (AONB). The surrounding landscape is open to the North, East and West. Most of the parish is atop a plateau, very flat, and at a relative high point topographically (50M above sea level and close to the local 55M peak at Redhouse Farm). There are very few trees and the 50M pylons and associated infrastructure at the sealing end compounds, especially the Eastern compound, will be both prominent and clearly visible for a significant distance, including within the Dedham Vale National Landscape / AONB (see contour maps and viewsheds, attached to our 2023 consultation response). Such will also be visible from the large cluster of historic and listed buildings at very close proximity to the route through the village and from the main road through the village which has open views across fields where the proposed route crosses and from which the infrastructure will be clearly visible.

Great Horkesley Parish Council endorses the view of the OFFSET MPs and Essex, Suffolk, Norfolk Pylons, that a fully integrated offshore route should be properly considered, evaluated, costed, and presented as an option. Such a route has the potential to remove considerable harm from the amenity of this village, the AONB and the surrounding countryside. Further and alternatively, HDVC cabling which is at least

cost-neutral, if not cheaper, ought to be considered for the whole scheme (and route re-evaluated); such causing significantly less harm due to the narrower construction swathe. Newer technologies should be considered and employed where possible.

We also note that undergrounding itself causes significant harm to the amenity and tranquility of the area particularly during its construction, necessitating 120m wide trenches, but also potentially causes lasting damage to the landscape trenched, particularly where the trenching is shallow. The construction trenches, compounds and haul roads are located in extremely close proximity to residences including Grade II and Grade II* listed buildings who will be particularly impacted and at risk of harm from visual blight, noise and vibration.

Failings in respect of Process and Design

The deficiencies which we have previously identified remain unaddressed and you have failed to take account of our previous comments in respect of route and required mitigation.

You have ignored our objections to the manner in which the consultation process is being conducted. You continue to ignore the Gunning Principles, have still produced just one alternative for consultation, and still have not commented on or responded to the matters set out in the Legal Opinions issued by Lord Banner, KC.

In the present consultation, and worryingly in response to many of the matters raised previously and documented in your 'feedback report', you very often state that work '***will*** be done' to determine damage (etc) and that you '***will*** propose mitigations' where necessary. This dramatically compounds the deficiencies in your process: how can we – or indeed any respondent - be expected fully to comprehend the scale of damage which will be caused and to provide reasoned feedback when you have not in fact supplied any facts capable of such.

Your response to previous comments or questions is very often vacuous or merely states that you do not consider impacts material without providing evidence. That might, of course, be your opinion but the purpose of a consultation is to find out the opinion of others. Your opinion is neither objective nor balanced. Your assessment is faulty, the impacts are dramatically higher than you state.

We certainly do not share your opinion and assess the damage which would be done to our Parish and to the listed buildings within it, as well as to its setting and that of the Dedham Vale of which our Parish forms part, as 'high' and 'significant'.

You have not responded to our questions in respect of Needs Case. Meanwhile the Needs Case for the EACN and hence the cables through this area has been further set in doubt as a result of the agreement of North Falls and Five Estuaries to connect

offshore to Sea Link and the arguments against Tarchon as set out by Sir Bernard Jenkin MP in his recent response to Ofgem on the matter and published here: https://www.bernardjenkin.com/sites/www.bernardjenkin.com/files/2024-05/Tarchon%20Consultation%20Submission%20Sir%20Bernard%20Jenkin.pdf

You have ignored entirely our suggestion that the section of cable from the EACN at Ardleigh to Great Horkesley be undergrounded and given scant regard for the alternative request for extension of the underground section moving the eastern Sealing End Compound away from our Parish in order to mitigate the undoubted effects on our Parish and – in policy terms more important – impacts upon the protected National Landscape of the Dedham Vale.

You have argued that damage to the Dedham Vale is minimal, despite landfall maps which you have produced showing that there are points in the Dedham Vale where between 50 and 60 pylons will be visible, and that 'full structures' of Pylons will be visible across much of the Vale. You have stated that the proposed pylons will not form a ring of steel on the basis that they are too far away, yet a car travelling at the posted speed limit would cover the ground in under 60 seconds.

You have also wrongly argued that the Sealing End Compound at Great Horkesley is not visible from and hence will not damage the Dedham Vale being approximately 2km distant.

Meanwhile the relevant National Policy Statement for Electricity Networks NPS-EN5 has been updated by Government in order to remove the 'grey area' in which you previously attempted to argue that it was policy to build Pylons everywhere outside of the National Landscape of the Dedham Vale. The latest version of NPS-EN5 provides that:

- Even "residual impacts may well make an overhead line proposal unacceptable in planning terms". (NPS-EN5 2.9.12)

- Although it is the government's position that overhead lines should be the strong starting presumption for electricity networks developments in general, this presumption is reversed when proposed developments will cross part of a nationally designated landscape (i.e. National Park, The Broads, or Area of Outstanding Natural Beauty). (NPS-EN5 2.9.20)

- In the Dedham Vale, "AND where harm to the landscape, visual amenity and natural beauty of these areas cannot feasibly be avoided by re-routing overhead lines, the strong starting presumption will be that the applicant should underground". (NPS-EN5 2.9.21)

- The two criteria for where undergrounding is not necessary are (i) "where it is infeasible in engineering terms"; and (ii) "where the harm that it causes is not outweighed by its corresponding landscape, visual amenity, and natural beauty benefits" (NPS-EN5 2.9.22)

The Holford rules, also embedded in NPS-EN5 also state that applicants should:

- “avoid altogether, if possible, the major areas of highest amenity value, by so planning the general route of the line in the first place, even if total mileage is somewhat increased in consequence.”

- “take advantage of the screening provided by land form and existing features and the potential use of site layout and levels to keep intrusion into surrounding areas to a reasonably practicable minimum.” (NPS-EN5 2.9.17)

The Horlock rules, also embedded in NPS-EN5 also state that applicants should:

- “avoid altogether internationally and nationally designated areas of the highest amenity, cultural or scientific value by the overall planning of the system connections.”

- “protect as far as reasonably practicable areas of local amenity value, important existing habitats and landscape features including ancient woodland, historic hedgerows, surface and ground water sources and nature conservation areas.” (NPS-EN5 2.9.19)

The Norwich to Tilbury cables do indeed cross the Dedham Vale which is a National Landscape. The Pylons and Sealing End Compounds between TB1 and TB41, located within our parish or nearby parishes, cause damage to the Dedham Vale at a level which your own documents demonstrate to be well beyond the merely ‘residual’. There is nothing in our parish or in the neighbouring parishes which would have led to difficulties in engineering underground cables, and given that they would pass through farmland nothing to suggest that damage done by undergrounding here would have outweighed the benefit to removing impact from the Dedham Vale.

Your proposals are deficient and do not conform to the requirements set out in NPS-EN5.

You should have “avoided altogether” this area and it was perfectly possible to do so: you could and should have removed the EACN from your proposals either by removing the connections entirely or alternatively through making them at a different location. Your Strategic Options Backcheck and Review demonstrates perfectly feasible alternative routes, which indeed are less costly than your proposed route, such as the EAS1 alternative set out therein but not consulted upon. Work by ESO as part of the East Anglia Review further demonstrates Alternative 5b which avoids the Dedham Vale altogether and Alternative 8 in which HVDC underground cables still proceed via the Dedham Vale but which would cause dramatically less impact, each of which at cost comparable to that of your present Norwich to Tilbury proposals.

You should have followed the strong starting presumption to underground TB1 – TB41 as required in Policy, and which we have previously requested.

The arguments contained in your response to our comments in respect of the 2023 Consultation are also deficient: you argue that cost is too high for the benefit achieved. Cost is not a relevant matter in the determination in this setting. Per NPS-EN5 2.9.22 feasibility and relative damage are relevant, but you have not argued either and nor can you argue either.

You have not sought to protect the beauty of this parish or the landscapes, historic buildings and views within it.

We remain greatly concerned by the impact of the proposed site for the Sealing End Compound in our Parish.

The siting of the sealing end compound at Horkesley Plantation necessitates multiple gantries and pylons in a small area in close proximity to both the Dedham Vale National Landscape / AONB and also to a very significant concentration of Listed Buildings at Great Horkesley (including a large number of Grade II listed and one Grade II* listed very near to the proposed route).

Our concerns are two-fold:

1) **Firstly:** Land in this area is exceedingly flat, with only a few metres between the local peak (55m, Redhouse Farm) and the intended location of the Sealing End Compound (50m).

   There are no significant dips in the land and no other features capable of providing screening to or from either the listed buildings or the National Landscape.

   Given the flatness of the land, any gantries, towers or pylons in this area will be widely visible.

   Proximity of the CSE compound to the Essex Way will also cause significant harm to amenity for significant numbers of walkers from across the region and beyond

   The industrialisation of the Parish in this area is entirely incompatible with the setting and will do significant and lasting harm to an area which, per the Horlock and Holford rules, should have been ‘avoided altogether’. The situation is made more problematic by the concentration of infrastructure including gantries and heavier tension towers in a small space near to the Sealing End Compound which leads both to unacceptable wirescape and significantly increases the sense of industrialisation.

The choice of site is unsuitable as it would harm the setting of Listed Buildings at Great Horkesley. The site cannot be moved closer to the Dedham Vale AONB for the reasons already set out above and hence needs to be relocated significantly further East if it is to be located along the route currently indicated.

2) **Secondly:** We are concerned that vibrations from works will cause structural harm to residential buildings near to the cable route, many of which are Listed and lack foundations beyond a brick or two beneath the sole plate.

   National Grid must employ a heritage consultant well experienced in buildings of north-Essex heavy timber frame construction in order to advise on the likely effects of vibration and potential methods of mitigation. In any event National Grid must also take responsibility for damage and must fully accept that damage may take a number of years beyond the construction period to become apparent.

Additional benefits of undergrounding the entire section from Ardleigh to (at least) Great Horkesley include the removal of the Sealing End Compound in our Parish from the plans entirely, which will improve the cost.

Wherever it is located, it is imperative that the Sealing End Compound is thoroughly screened from view from all Listed Buildings and that it is located such that even the tallest sections are perceived against woodland background in order to break up the visual impact in any directions where it is impossible to plant trees. The landscape in this area is dotted with small pockets of woodland, which also feature heavily near to ponds, along brooks and rivers, and occasionally between fields.

It would be perfectly natural in this setting to plant tall fast-growing native tree species densely along each side of the Sealing End Compound, Gantries and Tension Towers and to plant additional groups of trees along the line of site from nearby buildings and the main road, closer to the buildings and road (and hedging plants where it crosses the cables). Screening will provide lasting benefit and should be put in place immediately National Grid take control of the relevant areas to ensure that growth is established even before construction commences.

Significant Harm: Residences and Listed Buildings

We would draw your attention to the significant number of residences and listed buildings that will be in extremely close proximity to the proposed trenching works, haul roads and construction compounds. Significant harm to these listed and residential buildings is unavoidable and will include visual blight, noise and vibrations, which will not only affect their amenity and setting, but also (re vibrations) potentially their structural integrity. Concerns include the impact on Grade II* listed Chapel Cottage and significant cluster of other listed buildings and residences in close proximity to where the route crosses the A134, and several listed buildings along School Lane including New Barn

House (the haul road passing extremely close to such building without foundations, in the setting of which is a particularly beautiful pond, fed by the water table).

If the scheme is to go ahead as proposed, appropriate advice will be needed and significant mitigation measures and monitoring will be required.

Amenity and Impact on Roads, Residences, Vegetation and Farming

Great Horkesley is a rural Parish and our residents are greatly concerned by the impact of the proposals upon their day-to-day lives from noise, pollution and road congestion, the amenity of the local area for walks including on the Essex Way in close proximity to the Eastern sealing end compound and underground route, and upon farming.

The interests of local community and landowners / farmers must be put first ahead of National Grid's own convenience, even if that results in increased costs for National Grid. To ensure this the following mitigations and restrictions are essential:

- **Construction: Timing, Operational Hours, Impact:**
  In order to protect the local population from disturbance, working and vehicle movements must not ordinarily be permitted on Sundays or Bank Holidays, nor outside of the hours of 8am and 6pm on any work day without the further agreement of the Parish Council.

  Consideration as to reducing vehicular movements during peak traffic flow times should be given.

- **Construction infrastructure: Compounds**
  The set down and construction compounds located either side of the A134 are in extremely close proximity to local residential and listed buildings, including Grade II* listed Chapel Cottage, Grove House, and the cluster of other residences and listed buildings at that point. It would however be easy to relocate such to mitigate the harm and disruption to residents caused by their visual blight and noise nuisance, and also reduce the visual impact of the scheme from the centre of the village at the A134. We would suggest that it will be easy to move such East behind farm buildings at TL 98185 31054 where it will have reduced visibility and noise nuisance to residents and beyond.

- **Haul Roads and Construction Vehicles:** National Grid's plans call for construction of haul roads alongside the cable route, in many locations on both sides of the line. This will increase construction time, cost of construction, cost of land reinstatement, and result in greater damage to soils over a longer period. Construction of haul roads must be minimised to that which is absolutely necessary. Instead, agricultural vehicles with larger lower pressure tyres suitable for use on farmland should be used in place of traditional road-suitable construction vehicles. This will eliminate or reduce the need for haul roads and result in quicker, cheaper reinstatement of land together with

better soil recovery. For the same reason the width of the construction swathe must be minimised. It is extremely close to residences and listed buildings at the A134 and along School Lane. We note that the current water-main installation project from Bury St Edmunds to Great Horkesley is making use of agricultural machinery and that very few, if any, concerns have arisen.

As set out above, local listed and heritage properties are particularly vulnerable to vibration and located in very close proximity to the proposed haul road (especially near the A134 and along School Lane). Haul roads should be moved as far as possible away from residences and listed buildings and appropriate mitigation and monitoring undertaken.

- **Alternative Construction Methods:** National Grid must investigate and wherever possible adopt new construction techniques such as 'cable ploughing' which are able to bury cables much more quickly and cause dramatically less damage to farmland, environment and ecology resulting in correspondingly faster recovery times.

- **Hedges:** Farm hedges are multifunctional elements in agricultural landscapes, providing environmental, agricultural, economic, aesthetic, and climate regulation benefits. They play a crucial role in promoting biodiversity, protecting crops, managing water and soil resources, and enhancing the visual and cultural value of the countryside. Maintenance of existing hedges is therefore essential for sustainable and resilient farming systems. National Grid plans to remove extensive sections of hedge at access and crossing points with local roads as well as between fields in open countryside.

  The degree of removal indicated goes far beyond what is required and will inter-alia:

  - significantly disrupt habitat impacting birds, insects and small mammals as well as removing corridors which connect distinct habitats and allow wildlife to move safely between areas causing a reduction in diversity. In turn this will reduce beneficial predation increasing the need for use of chemical pesticides and encourage pests into fields resulting in damage to crops.

  - Remove natural windbreaks increasing soil erosion as well as increasing flow of water across fields causing increase run-off with similar outcome.

  - Dramatically reduce shielding and thereby increase the visual impact of construction works affecting local communities and damaging, albeit temporarily, important visual receptors.

  National Grid must minimize to the greatest possible extent the removal of hedgerow, ensuring that gaps created are wide enough only to allow access of machinery. In practical terms removed sections must not span greater than 12m. It will not be acceptable to widen removal beyond this for the purpose of increasing visibility towards roads and consequently National Grid must make use of 'stop lines' for traffic

on haul roads at each crossing point to ensure safety of passing traffic, employing banksmen to ensure public safety.

Sections of hedge scheduled for removal must be protected with netting for a year prior to removal to minimize impact on nesting birds.

Removed sections must be replanted with appropriate native species to match remaining hedge immediately upon the completion of construction within each field, to a standard agreed with landowners and farmers, and must ensure that hedges are subsequently coppiced and / or laid after an appropriate period in order to promote ecology.

- **Removal of Soil:** depth of topsoil ranges between 6" and 24" in the parish, sitting atop heavy clay. Care of soil during removal is essential to ensure that following reinstatement works yields can return to former levels avoiding lasting physical and economic damage. Therefore, National Grid must:

  - Ensure professional supervision during assessment, removal and storage of topsoil.
  - Determine and agree the appropriate depth of soil to be removed with landowners and farmers
  - Ensure that clay is removed and stored separately, avoiding mixing during works and storage. Where necessary membranes must be employed to prevent mixing with soil.
  - Use membranes beneath any haul roads which despite foregoing comments are still necessary, ensuring separation between agricultural land and aggregates used in construction of the haul roads. Membranes must extend beyond the haul road in order to prevent overspill.
  - Employ only lighter agricultural vehicles suitable for field work in the vicinity of removed soil in order to avoid compaction. Minimise traffic for the same reason.

- **Drainage and Flood risk:** National Grid must consider drainage during and after construction, setting out plans for agreement by landowners and farmers prior to construction. It should be noted that our Parish already has significant issues with regard to run-off and flooding after heavy rain on local roads (and on occasion ingress to local residences) and the impact of construction (including impacted soil) must be properly assessed. During construction detailed plans in respect of each field crossed must take account of land contours and consider existing drainage, disruption of flow due to soil / clay storage, haul roads and construction sites ensuring that land does not become waterlogged or dry and controlling run-off rates to avoid soil erosion both within and outside of the construction swathe, and localised flooding. As a minimum this will require installation of land-drains either side of haul roads picking up existing drains where possible. After reinstatement National Grid must reconnect existing drainage promptly and provide for inspection after 1, 3 and 5 years to identify and correct emergent issues as land settles.

Irrigation: farming in the area relies upon irrigation from boreholes contained within the land. Boreholes must be carefully protected during and after construction ensuring that sufficient flow remains available and accessible in all parts of impacted fields. Where this cannot be ensured National Grid must compensate landowners and farmers for consequential losses and must promptly act to reinstate supply through the provision of new boreholes as required. After reinstatement National Grid must reconnect existing supplies promptly and provide for inspection after 1, 3 and 5 years to identify and correct emergent issues as land settles.

- **Land Access, Land Security, Animals. Reinstatement of Soil and Economic Damage:** Appropriate measures must be taken to ensure land access, protect land security, take account of animals, and reinstate soil after construction, with appropriate compensation paid for any and all damage to land and economic interests.

Public Highway

We note that you intend to direct the vast majority of construction traffic destined for section D via the A134 through our village. This means that one road, which passes through the residential Chesterwell area before it enters our rural village, will bear the brunt of all the very significant extra traffic generated for construction of haul roads, pylons (beyond our parish) underground trenching, sealing end compounds, and related infrastructure and landscaping, causing significant harm.

From your own figures, you estimate the following:

An extra 321 vehicles per day along the VUR, NAR and A134, of which 193 will be HGVs. This will be a 64% increase of HGVs along Nayland Rd / The Causeway.

You yourselves declare the road to be sensitive.

We are greatly concerned that the A134 will not be able to cope with the volumes of traffic caused and that this will cause significant harm including:

(i) Increased risk to pedestrians and cyclists, including school children who walk and cycle to the Trinity School in Chesterwell from the village along the A134 and pedestrians who need to walk along and frequently cross the A134 to and from amenities such as the primary school, village hall and recreation ground, and bus stops;

(ii) traffic congestion, noise and pollution;

(iii) inconvenience to our residents, representing as it does the main access from the Parish to Colchester and its local amenities, including the railway station, supermarkets, offices and secondary schools

(iv) push local traffic away from the A134 onto unsuitable other local roads which will then be unable to handle the additional volume (including Boxted Road, Coach Road, and London Road). Many local roads are single-track countryside lanes

with passing places unable to take a constant flow of traffic and bottlenecks will easily result.

We are also concerned that removal of street-furniture and traffic-islands will have a dramatic impact on the speed of traffic and on both road and pedestrian safety. Great Horkesley is a linear village centred along the A134. The pedestrian footways are located only on one side of the A134 and changes between being located on the West side, to the East Side, and to the West Side again. There are no pedestrian crossings and traffic islands are essential both for road calming and for providing pedestrian refuges.

We therefore suggest that the A134 be removed from your plans and replaced with access directly from the A12 via new temporary slip-road which you construct from the A12 at the point the route crosses the A12 between Colchester and Langham. If this is insufficient or if secondary access is required, we suggest that you investigate whether access can be gained via Colchester Park and Ride again avoiding use of the A134.

In the event that the current proposals are to proceed, and road safety features are to be removed, it is unclear how safety will be maintained, and it is noted that no details are given by you – we ask that, to the extent that such proposals are pursued, this be given specific consideration and detailed plans set out as to the maintenance of road calming and safety, including pedestrian crossing points and refuges.

The underground section of the proposed route crosses the A134, School Lane (twice) and London Road. It will not be possible to open-trench beneath these roads without serious disruption and cutting off half of the Village from substantially all access routes to Colchester. The A134 in particular is unsuitable for any road closure with no diversion route avoiding single-track lanes which are wholly unsuitable and, from experience, get insurmountably jammed in such event. It will therefore be essential that trenchless crossing methods such as directional drilling are employed to avoid disruption.

Position of Great Horkesley Parish Council

We hereby reiterate and repeat the contents of our previous submission in respect of the 2023 non-Statutory Consultation with respect to the present 2024 Statutory Consultation requesting once more that the matters therein are this time ***properly*** addressed.

Furthermore we adopt and reiterate the arguments set out by Sir Bernard Jenkin MP in his recent submission in respect of this consultation, as published here: **https://www.bernardjenkin.com/sites/www.bernardjenkin.com/files/2024-07/National%20Grid%20Consultation%20Bernard%20Jenkin%20Response.pdf**

It is the position of the Parish Council that:

- We continue to believe that an Integrated Offshore Grid represents the best long-term interests of the UK as a whole.

- Your Norwich to Tilbury proposals would bring very significant harm to this parish, the listed buildings and landscapes within it, and to the Dedham Vale National Landscape / AONB.

- Your proposals fall outside of the requirements of local and National Policy NPS-EN5.

- North Falls and Five Estuaries should combine offshore with Sea Link.

- The Tarchon project should not go ahead with a connection at the location currently proposed.

- The EACN is in the wrong location and / or not required.

- Regardless of which, you are required by National Policy to adopt an alternative route, such as EAS1, ESO Alternative 5b or ESO Alternative 8, avoiding the Dedham Vale and this Parish entirely.

- Even if you do not, you are nevertheless required by National Policy to underground the entire section of line between TB1 and TB41/2, or at least TB31/34 at Great Horkesley. We endorse the submissions of Colchester CC in this regard.

- Your argument that the cost of additional underground line in this area is not justified by reduction in impact to the Dedham Vale is not appropriate as firstly, cost is not a relevant argument in the terms of NPS-EN5 within this setting, and secondly because in the terms of NPS-EN5 even residual impact is unacceptable in planning terms.

- The use of underground HVDC technology, as proposed by ESO in Alternative 8, would represent a far better approach to this problem and should be employed for the whole project as it would afford protection to the whole line including significant improvements within the areas already proposed to be underground due to the significantly narrower trenches and working space requirements.

- If it still exists, the Sealing End Compound at Great Horkesley must be in another location further to the East and sited further from the national landscape/AONB and in less visible areas in conformity with the Horlock and Holford rules. Wherever the Sealing End Compound is located it must be fully screened with tall native tree species such that it cannot be seen from any listed building or in any direction from or into the Dedham Vale. Its visual blight is significant due its sheer scale and height.

- The set down and construction compounds located either side of the A134 must be located away from residential and Listed Buildings. You should investigate the possibility of locating these near to farm buildings or other commercial activities to minimise disruption to residents and suggest that it will be easy to move such East behind farm buildings at TL 98185 31054 where it will have reduced visibility and noise nuisance to residents and beyond.

- The A134 should not be used to carry the majority of construction and other traffic for the project in section D and proper consideration ought to be given to alternative, direct, routes from the A12 to reduce the significant harm that would otherwise occur; in any event appropriate measures must be taken to maintain public safety. Further, road closures should be avoided, especially on the A134, during construction (and trenchless crossing technology utilised).

- The hours of operation for both construction and vehicle movements must be reduced to avoid Sundays, bank holidays and evenings.