



FREEPOST Norwich to Tilbury  
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<b>Your ref:</b>	N to T Statutory Consultation
<b>Our ref:</b>	N to T statutory consultation
<b>Date:</b>	5 August 2024
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Dear Sir/Madam

### **National Grid Electricity Transmission – Norwich to Tilbury – Statutory Public Consultation**

Thank you for the opportunity to comment on the Norwich to Tilbury statutory public consultation, held 10 April – 26 July 2024.

East Suffolk Council (ESC) is a neighbouring authority to the proposed 400kV electricity reinforcement between Norwich to Bramford, and Bramford to Tilbury. The Council's comments on the project and consultation material have been provided below.

ESC is a neighbouring authority and not one within the primary study areas in the Preliminary Environmental Information Report (PEIR), and so will limit its comments primarily to the need case and alternatives, assessment of impacts in specific areas and community benefits. ESC defers detailed technical comments to the host authorities along the route.

#### **Need Case**

The Design Development Report states reinforcement is needed because the existing transmission network, even with current planned upgrading, will not have sufficient capacity for the new renewable energy generation (a substantial proportion of which is generated by offshore wind) that is expected to connect to the network over the next ten years and beyond. Completion of the Norwich to Tilbury project, together with other new reinforcements across the country, will meet this future energy transmission demand both in East Anglia and across the UK. The Strategic Options Backcheck and Review states without reinforcement the capacity of the East Anglia and South East existing network is insufficient to accommodate the connection of the proposed new power sources, and the physical maximum energy capacity the system can accommodate during planned system faults would be exceeded, preventing export of power to demand centres beyond East Anglia.

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ESC notes the need case provided for the reinforcement project and the further detail provided in the Strategic Options Backcheck and Review on existing and planned future generating capacity and forecast demand in East Anglia.

The Review states that the existing electricity transmission grid in East Anglia is at full capacity and even with the other powerlines proposed (including the Sea Link high voltage direct current undersea line between Suffolk and Kent, and the Bramford to Twinstead 400kV grid reinforcement) and upgrading of existing lines with new wires, there is still a need to increase capacity between Norwich and Tilbury.

The Report considers solutions to resolve capacity shortfalls in the East Anglia area. ESC notes that in all cases considered in the combinations of options required to meet the need case, Sea Link is required.

ESC notes the concerns raised by other stakeholders about the prematurity of the delivery of the Norwich to Tilbury project, noting that the Hiorns report jointly commissioned by Suffolk County Council, Essex County Council, and Norfolk County Council on behalf of all local authorities on the proposed route, concluded that the project is not required until the mid-2030s. ESC notes other stakeholders have asked for a pause on the project to allow the full assessment of the potential alternatives.

ESC welcomes the acknowledgement that the conclusions regarding backchecks are not final, and that backchecks and periodic updates will be continually reconsidered and reviewed as new information becomes available.

The Council also supports coordinated offshore solutions where they would not result in significant additional onshore infrastructure in East Suffolk.

### Offshore Alternatives

ESC notes that the Strategic Options Backcheck and Review provides updated costs for the project and alternative options from the previous non-statutory consultation. ESC welcomes the inclusion of updated and more detailed costs in the Review on all onshore and offshore alternatives to enable a fuller understanding for comparison between alternatives.

The Review at page 15 identifies one offshore alternative 'Offshore 1 – Norwich to Tilbury' and sets out this option's shortfalls which include failing to provide the flexibility of the onshore connection options as it does not facilitate two-directional flows of the transmission system, creating problems given energy demand is distributed throughout England, and two-directional flows are preferred as they provide more flexibility.

*“Firstly, the 6,000 MW Offshore 1 option would only facilitate the contracted Essex Cost Generation Group including Tarchon Interconnector, North Falls and Five Estuary [sic] offshore wind generation, with an offshore connection into the link. This would require significant additional infrastructure. The offshore HVDC platform and offshore AC platform needed to accommodate the required HVDC converter station and AC substation, would have additional capital costs of greater than £500m.*

*Secondly, option Offshore 1 would not provide the flexibility of onshore connection options which facilitate flows both to the West and East of the transmission system for different system faults. Offshore 1 only provides flows to the East of London, whereas energy demand is distributed throughout England so this option would not be as effective for all system conditions compared with the combination of an EAN and EAS option. To achieve a fully like-for-like alternative with the AC North and South of East Anglia circuit options, with the additional flexibility of connecting into Bramford or substations to the west, the HVDC solution would need to be of a multi-terminal design, with 3 additional 2000 MW converters located at Bramford and cabling 50km from a DC bussing point offshore. This would significantly increase the costs and the potential environmental effects.”*

*It is noted in the Review at section 14.4.5 that “From the environmental and technical appraisal considered, alongside capital and Circuit Lifetime Costs, the preferred option for Offshore 1, 220 km connection between Bramford and Tilbury 400kV substations by offshore connection, would be for a Subsea HVDC circuit connection. In light of this analysis, our starting presumption for further development of this option should it be selected, would be for a majority overhead line connection.”*

*The Review goes on to say at 14.4.6 that “should this circuit at full 6000 MW capacity made multiterminal to provide the same system flexibility as the AC circuit options. There would be a need for an additional three sets of HVDC convertor stations and three sets of 50km HVDC cable to connect to Bramford, to make multi-terminal HVDC links.”*

The offshore alternative presented in this consultation would entail additional onshore infrastructure with associated impacts on communities and the environment. ESC would support a coordinated offshore solution which would not result in significant additional onshore infrastructure. The preference stated in the Review at 14.4.6 for majority overhead line connection in the offshore alternative presented is not supported. No justification is given for the preference for majority overhead lines in the alternative offshore solution. The Council would not support an offshore alternative solution which introduced additional onshore infrastructure without a full and reasoned justification for the requirement of overhead lines, instead of other options like undergrounding.

It is also noted that the amount of onshore infrastructure required for the offshore alternative presented is dependent on the selection of alternating (AC) or direct current, and an AC circuit

option would require an additional three converter stations at Bramford, each of which the Review described would be “similar in size to a large warehouse”.

ESC considers it vital that government and scheme promoters first consider brownfield sites for onshore infrastructure, before looking to build new infrastructure in rural and greenfield areas impacting on landscape and ecological designations.

As such, unless an alternative offshore solution was identified which did not necessitate substantial onshore infrastructure on undeveloped greenfield sites and associated environmental, landscape and visual harms, based on the current information, ESC cannot support the offshore alternative to the current project proposals.

#### National Grid Electricity System Operator (NGESO) East Anglia Network Study, March 2024

ESC notes the update on the NGESO East Anglia Network Study of March 2024, including National Grid’s commitment to carefully considering the findings from the study and awaiting the government’s decision on the outcome of the Offshore Coordination Support Scheme (OCSS). ESC notes National Grid’s commitment to backchecking and reviewing the Norwich to Tilbury proposals to reflect these outcomes.

#### Offshore Coordination Support Scheme (OCSS)

ESC notes the update in the Project Background document on the OCSS on funding to investigate a coordinated design for offshore energy transmission and to learn lessons to inform future projects. ESC notes that the project says until the outcomes of the OCSS studies are known, it is important that the project continues to develop proposals to meet National Grid’s statutory duties and responsibilities.

#### Landscape and Visual Impact

It is noted within the documents submitted that the undergrounding alternative to the cable route is being considered for an additional length of 2km in the Waveney Valley. National Policy Statement (NPS) EN-5 sets out a clear notion that landscape and visual impacts should be mitigated as far as possible if the proposal crosses Nationally Designated landscapes. ESC consider that overground cabling could result in widespread and significant adverse landscape impacts and so our previous position regarding the use of underground cables to minimise these potential impacts remains. Suffolk County Council (SCC) has raised similar concerns specifically in relation to Waveney, Gipping and Stour Valleys and are seeking for additional undergrounding where national policy supports this. Whilst ESC welcomes the additional mitigation measures in the form of woodland, tree, scrub and hedgerow to be used as part of the Waveney Valley Alternative to screen the additional CSE

compounds that would be required, we support SCCs view in regard to additional undergrounding in non-designated landscapes.

ESC maintains that above ground infrastructure within the setting of the National Landscape can have a significant impact on its value. Consideration should be given to extending the section of undergrounding to ensure that overground structures are sited as to minimise visual impacts on the designated landscape and its setting. This concern also relates to views shown on figure 13.8.8 with CSEs to the south of the National Landscape.

### Rationalisation

ESC supports and requests the full exploration of additional benefits that could be achieved through the rationalisation of the existing 132kV network as part of the project. This could facilitate potential improvements in terms of connections of other projects to the electricity network, create landscape improvements through the removal of existing overhead lines, and reduce the cumulative visual impact of energy infrastructure in the landscape. ESC would support the removal of existing lines which could be replaced by overhead or undergrounded lines provided in this project.

### Cumulative Impacts

East Suffolk is host to numerous consented, planned, and known Nationally Significant Infrastructure Projects (NSIPs). The proposed Order Limits of Norwich to Tilbury are outside the boundary of East Suffolk however, the Order Limits sit within the wider context, both spatially and temporally with several other projects, namely East Anglia One North and Two, North Falls, and Five Estuaries offshore windfarms, Sea Link reinforcement project, LionLink and Nautilus multi-purpose interconnectors and the Sizewell C new nuclear project.

ESC has previously raised concern about the cumulative impact on communities and the environment of the Norwich to Tilbury project in combination with other consented, planned, and known energy projects. The full cumulative effects of the project in combination with other consented and planned NSIPs must be fully and robustly assessed.

ESC considers the cumulative impact assessment does not adequately address the potential for cross-boundary cumulative impacts, including assessment of impacts on East Suffolk. Whilst ESC acknowledges the justification given in the Preliminary Environmental Information Report (PEIR) that intra-project impacts are unlikely to affect East Suffolk, the Council considers that the inter-project impacts occurring between the construction of other consented and known NSIPs including Sizewell C have not been adequately considered. The cumulative socio-economic impacts should be thoroughly investigated and assessed.

ESC continues to reiterate the importance of thorough assessments of cumulative impacts of large-scale energy infrastructure projects. Suffolk, and East Suffolk in particular, is host to multiple consented, planned, and known NSIPs which are likely to have both spatial and temporal overlap. As such, proper and reasoned assessment of cumulative impacts is imperative. This is reflected in East Suffolk's Local Development Plan. Policy SCLP3.4 – Proposals for Major Energy Infrastructure Projects of the adopted Suffolk Coastal Local Plan states the Council will take into consideration the nature, scale, extent and potential impact of proposals for Major Energy Infrastructure Projects, including cumulative impacts throughout their lifetime, including decommissioning of existing plant and facilities.

All opportunities to minimise the adverse impacts should be explored and where appropriate, sufficient mitigation and compensation provided.

#### Cumulative Impacts - Socio-Economics

The PEIR identifies the potential for disruption to tourism and recreational assets during construction and operation. The Council considers the construction phase could have adverse impacts on the tourism industry, specifically relating to visitor perception and resultant impacts on visitor numbers.

Travel and tourism contribute significantly both to East Suffolk's and the wider region's economies and so the multiple projects that are anticipated to be built over similar timescales with temporal overlap, have the potential to adversely impact the economy of East Suffolk. East Suffolk attracts visitors with its heritage coastline, National Landscape, cultural hubs like Aldeburgh and artistic centres like Snape Maltings. The Economic Impact of Tourism (2022)<sup>1</sup> report outlines the economic contribution travel and tourism makes to East Suffolk. In 2022 (the most up to date data) the total value of tourism was £679,747,000 which is made up of visitor spending (£515,411,000) and indirect/induced spending (£164,336,000) with the most frequent purpose of trips being holidays.

Whilst ESC is not directly impacted by the landscape impacts of the proposal, cumulatively the impact on how East Suffolk is perceived by potential and returning visitors is something that could have a significant impact on the district and its economy. The Inspector noted in their scoping opinion the study area of the socio-economic, recreation, and tourism should not be limited solely to the local authorities' spatial areas through which the Order Limits would pass (Section 3.13.6) The Inspector said assessment of cumulative socioeconomic impacts should consider the supply chain area and workforce profiles in the study areas. The submitted documents have three study areas for the impacts above which are limited to the local study area within the order limits, 1km from the local study area and the wider study area which includes the extend of the local authorities

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<sup>1</sup> Economic Impact on East Suffolk - [Economic-Impact-of-Tourism---East-Suffolk-Report-2022.pdf](https://thesuffolkcoast.co.uk/Economic-Impact-of-Tourism---East-Suffolk-Report-2022.pdf)  
([thesuffolkcoast.co.uk](https://thesuffolkcoast.co.uk))

the Order Limits pass through. ESC considers there is not yet sufficient information about the supply chain area or workforce profile to justify the chosen narrow study areas discounting East Suffolk.

The current submission documents do not adequately address the cumulative socio-economic impacts that nearby energy projects (including Norwich to Tilbury) would have on East Suffolk as the study areas do not extend to the spatial limits of the district. ESC considers the study areas are too narrowly confined and would welcome consideration of the cumulative impact nearby projects and Norwich to Tilbury could have on East Suffolk and other local authorities on how they are perceived by the public, and the consequent impact on tourism.

### Community Benefits

ESC acknowledges that upgrading and reinforcing the existing electricity transmission network will play an important part in enabling the development of renewable and low carbon energy generation and contributing to the government's ambition to reach Net Zero. However, consideration must still be given to the potential impacts this proposal, and other proposed projects, may have on the landscape, natural environment, and local communities set to host such development.

Given the scale and rate of infrastructure delivery necessary in the coming years to meet Net Zero ambitions, ESC considers it is important for projects to provide tangible and direct community benefits to communities hosting national infrastructure. The benefits of low carbon energy production and distribution are felt nationally, but the potential adverse environmental, social, and cumulative effects are felt at a local scale, by host and neighbouring communities. ESC supports thorough consideration of any potential community benefits scheme as secondary mitigation, in addition to primary and embedded mitigation.

ESC continues to encourage National Grid to maximise the potential benefits of the project by seeking to provide a community benefit scheme to deliver benefits for affected communities along the proposed route, including exploring opportunities to coordinate community benefits with other National Grid projects in the region.

### Health and Wellbeing

ESC welcomes the introduction of mental health considerations during the operational life of the project as a consideration in the PEIR, noted to be as a response to concerns raised by stakeholders at the non-statutory consultation. ESC welcomes mitigation measures and expects adequate consultation to be undertaken with relevant communities to best assess mitigation and compensation where appropriate for those areas.

### Biodiversity Net Gain (BNG)

The project is intending to be submitted to the Planning Inspectorate between June and August 2025, with 10% mandatory BNG coming into force in November 2025. National Grid have made a voluntary commitment to achieve 10% BNG prior to the mandatory requirement. East Suffolk is committed to restoring ecosystems and biodiversity by rewilding and tree planting as demonstrated in Our Direction 2028, as well as promoting biodiversity on new developments through our local planning policies. We therefore encourage an increased commitment to BNG from National Grid, around 20%, to secure as much mitigation as possible and to lead by example for future schemes coming forward.

ESC welcomes National Grid's commitment to follow the mitigation hierarchy, first looking to avoid effects, then to mitigate within the draft Order Limits, before looking at off-site BNG compensation solutions.

The PEIR states National Grid is working with appointed technical specialists, environmental organisations, and landowners to identify potential opportunities for delivering areas of BNG, and where practicable also linked to wider environmental gains such as recreation improvement. ESC welcomes this commitment of a holistic view of BNG including potential recreation improvement.

If you would like to discuss any of the comments made in this response further, please do not hesitate to contact ESC using the above contact details.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Philip Ridley', with a long, sweeping underline.

**Philip Ridley BSc (Hons) MRTPI**

Head of Nationally Significant Infrastructure Planning  
East Suffolk Council



## Appendix

Figure 1: Norwich To Tilbury Draft Alignment Map

Link to interactive map: [National Grid - Norwich to Tilbury](#)

